HIStalk
HEALTHCARE IT NEWS & OPINION

Vince Ciotti of H.I.S. Professionals shared his memories, ephemera, and opinions about the history of health IT in a series of HIS-tory presentations that ran on HIStalk over several years starting in 2011. Much of what he wrote had been largely forgotten as many of those people who were involved on the front lines had switched industries, retired, or in some cases, passed away.

Vince closed H.I S. Professionals and retired in 2019. He was anxious to have his HIS-tory work saved for posterity. I've combined the individual PowerPoint presentations into a single PDF to make them easier to read like a book. Otherwise, they are unchanged and contain the inevitable mistakes and omissions that you would expect from someone jotting down their thoughts about people and events going back decades. Your comments are welcome.

Vince says he is willing to continue this work in some fashion with the help of readers who can provide their own memories and documents from the early days of health IT from the 1960s to the 1990s. Email him at vciotti@hispros.com.

Mr. HIStalk
June 2019

You can navigate this document in three ways, which may vary depending on the tool you are using to read this PDF file (Acrobat Reader, Chrome, Edge, etc.)

1. Advance through the whole thing like a book, one page at a time.

2. Display your reader's Bookmark pane, then click on the name of the chapter you want to read, such as "McKesson, Part I."

3. Use your reader's Search function to find terms throughout the entire document, such as all occurrences of "Cerner."

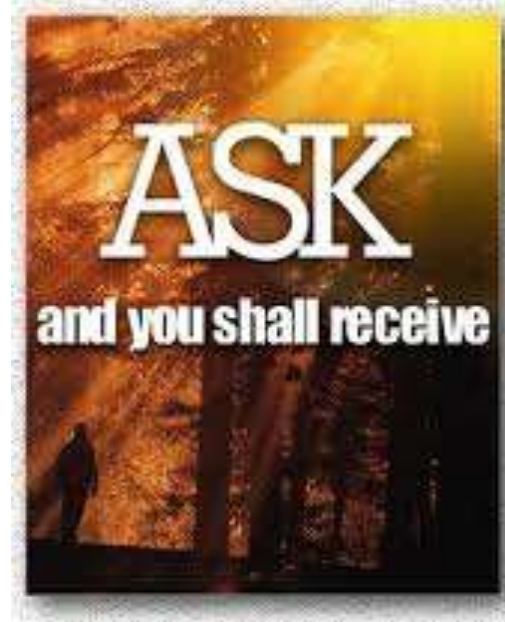Adjust your reader's view to display as much of each page as desired.

"H.I.S.-tory"
by Vince Ciotti

Introduction & Credits
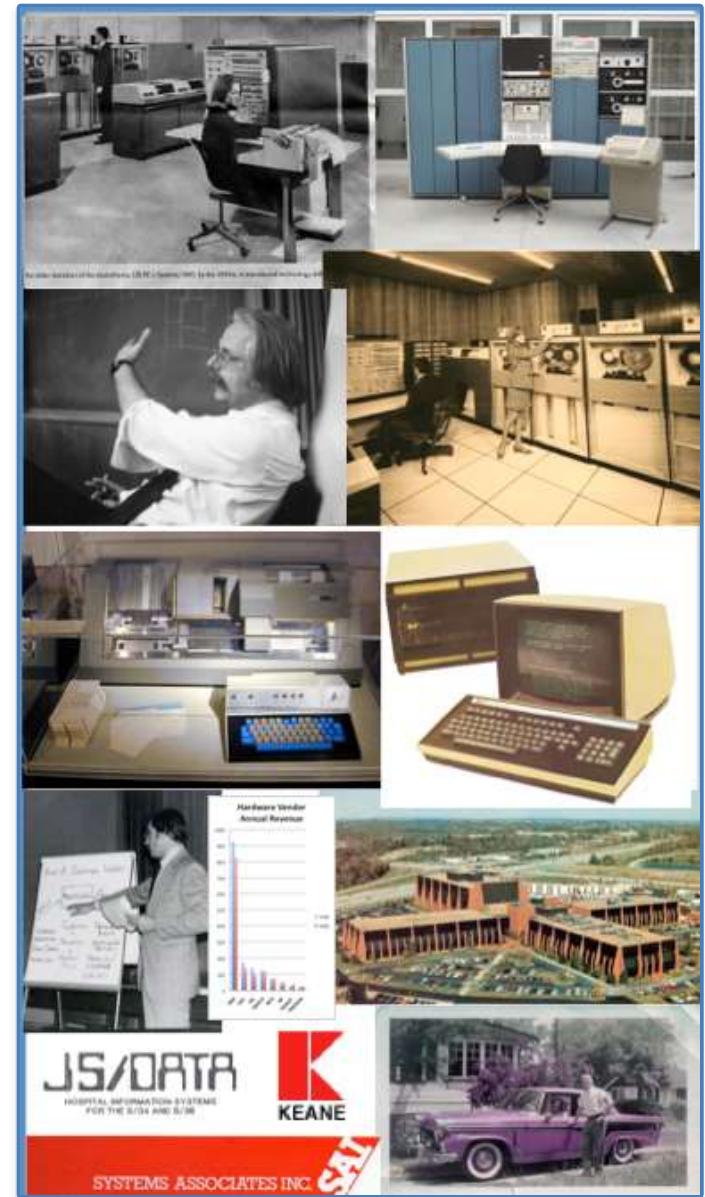
HIS-tory Files

- Blame a reader of HIStalk who emailed Mr. HIStalk the following request a while ago:

  - **De ja vu Says:** *"Vince Cioti's HIS-tory tidbits are a sweet stroll through time. Might there be a way to consolidate them and provide a link to them on the left side of the screen?"*

- So if you'd like to go back in time to revisit:

  - A former vendor employer
  - An HIS you ran many years ago
  - An old friend who disappeared
  - Or are just bored to tears some days...

- We've loaded all 120-odd (sic) episodes of HIS-tory that HIStalk has been kind enough to let us use.

- So click away and enjoy those good old HIS days...

Why Bother?

- A lot of friends asked me that question during the 2 years I wrote the H.I.S.-story episodes – *"why bother, when you can be out there making money as a consultant charging for your time?"*

- I've also been warned by many savvy friends: *"Be careful, this will pigeonhole you as an 'old fart' not in touch with today's tech!"*

- The reason is best credited to **George Santana** who so insightfully said: *"Those who cannot remember the past are condemned to repeat it."*

- Being born in 1945 and raised in Philadelphia, PA, the same time & place as **ENIAC**, I think I was *destined* to write this history of our HIS industry

- But please, if you learn anything reading this story, give credit to the scores of past friends, new enemies, business associates and voluntary contributors, some of whose names follow:
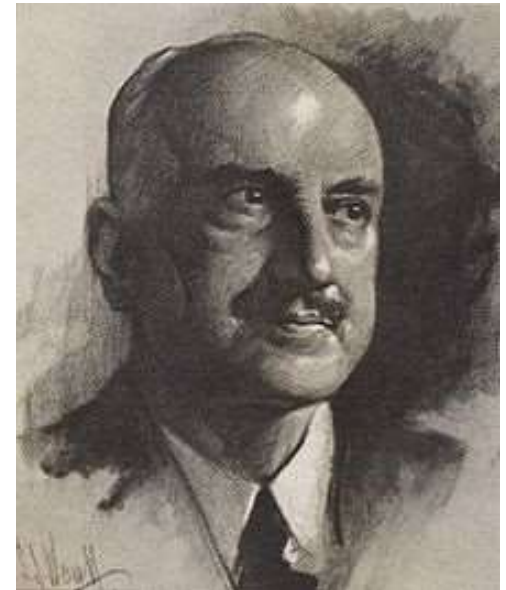
Da Man!

- Prime credit goes first & foremost to **Mr. HIStalk** who so generously printed these weekly HIS-tory episodes in his superb blog for 2 years:

  http://histalk2.com/

- If you want to stay on top of our industry and read HIS-tory as it is being made, this weekly blog of news & opinion is *the* place!

- Not only did he give this series invaluable space, but he provided encouragement when I was getting blogged down, gave me many leads on where to find HIS-tory heroes, and gave amazing vignettes of HIS vendors from his own experience:

Muchas Gracias!!

First Presentation

- Credit must also go to **HIMSS** and in particular, whoever was on the selection committee for presentations for their 2011 annual conference.

- They let me make an absolute fool of myself dressing like a 1960's hippy (actually, **Mr. HIStalk's** idea – he sent me the web site for this garb & wig!)

- While I presented a 60-page summary of this HIS-tory. Needless to say, the audience enjoyed the spectacle!

- If anyone out there would like a repeat at a national or regional event, just say the word – I still have the clothes and, right now, they still fit (barely...)

Former Employers…

- Thanks to many old friends at the HIS firms I once worked at, who not only told me some great stories of early days, but provided many documents & pictures that made this dull tome come alive:
  - **Shared Medical Systems**
    - **Jim Macaleer** – who hired me despite my having *no* knowledge of hospitals, computers or accounting
      - *(What was he thinking?)*
    - **Mike Mulhall** – first boss & mentor, RIP much too early…
    - And so many old SMS friends: Karl Sydor, Bill Bogutski, Glen Marshall, Bob Haist, Jim Carter, Mike Cassidy, Steve Myers…
  - **McAuto** – Dick Schopp, Bill Corum, Ed Gavin (sadly all RIP)…
  - **HIS, Inc.** – Brian Fitzpatrick, Roland Thibault (RIP), Jim Smith
  - **Micro Healthsystems** – Jim Pesce, John Trogge, Alex Cibenko
  - **Sheldon I. Dorenfest (SIDA)** – *the* wisest seer in HIS-tory!

HIS Vendor CEOs

- Retired founders of so many HIS pioneering firms who took time off of their pressing golf & other busy schedules to tell their firms' HIS-tories and provided invaluable documents and graphics:

  – **Bob Pagnotta** – founder of MDS, Tymshare & HIS Professionals

  – **John Depierro** – founder of Gamut and Medical Data Technology

  – **Jim Pesce** – of GE Medinet, McAuto, and Micro HealthSystems

  – **Dave Pomerance** – founder of Dynamic Control Corp. (DCC)

  – **Ray Paris** – founder of Keane's Health Services Division

  – **Larry Ferguson** – of SAI's (Systems Associates, Inc.) "Saint"

  – **John Sacco** – the eponymous founder of **JS** Data

  – **Sheldon Dorenfest** – founder of Compucare as well as SIDA

  – **Frank Poggio** – founder of HMDS, *the* first "Client/Server"

  – **Mike Kaufman** – president of SDK, named after his father

HIS Vendor Rank & File

- Veterans of other HIS pioneering firms who shared their stories:
  - **Gerber-Alley** – Brian Curnutt, Karen See, Brian Robson, Connie Williams, David Salazar, Mark Edelstein, Dave Wellons, Karl Kiss
  - **AR/Mediquest** – Paul McVicker and Kalon Mitchell
  - **JS Data** – Steve Kilgus, Ron Young and Tom Aikens
  - **Meditech** – Bill O'Toole, former inhouse legal counsel
  - **CliniCom** – Marjorie Rodell and Don Gilchrist
  - **Eclipsys** – Mike Smeraski, formerly of SMS & HBOC
  - **DATX** – Gary Lakin who worked for Tim Zinn & Lou Phillips
  - **Lockheed** – many thanks to these ladies who kindly corrected a number of egregious errors in one of my earliest stories on MIS, which made me much more thorough in my ongoing research:
    - Jane Baseflug, Connie Berg, Edith Caesar, Ann Farrell, Deborah (Debby) Kohn, and Elizabeth West.

Work In Progress…

- The HIS-tory of our business actually never ends; I hope long after I'm gone, someone will carry the torch and update these files with the stories of entrepreneurs building tomorrow's systems.

- If you have any stories of HIS days of yore that you'd like to share, and especially any old photos or graphics, please send them along

  - I'll gladly add your name to the list of credits,

  - I hope some day to make a book (probably "e" since paper seems so out of date…) out of these PowerPoint files, in which case I promise you an e-autographed copy of edition #1!

Work in progress!!

check back soon…

- So, please, if you know any of early HIS heroes or stories, please let me know and I'll add them to and update this treasure trove:

  - vciotti@hispros.com

- Or just give me a call at 505/466-4958 (no dots for we old-timers!)

H.I.S.-tory Overview

This overview of the first four decades of Hospital Information Systems covers:
- The 4 key HIS epochs and the dominant hardware platform during each
- Personal vignettes symbolized by pictures of the vehicles I drove then
- Some of the key vendors whose founding and inside stories will be told

Epochs/Decades		Key Vendor Profiles
— 1960s • **Mainframes**		– **IBM** – The "BUNCH" Group
— 1970s • **Shared Systems**		– **SMS** – McAuto, Tymshare, GE
— 1980s • **Minicomputers**		– **Meditech** – HBO, DCC, JS Data…
— 1990s • **Microcomputers**		– MicroHealthsystems – **HMDS**, CliniCom

H.I.S.-tory Overview

The first decade of Hospital Information Systems (H.I.S.):

- I start with the 60s which is when I first entered the HIS industry and began to learn about it from my many friends and mentors at Shared Medical Systems (later Siemens, now Cerner), many of whom came from IBM.

1960s: **Mainframes**
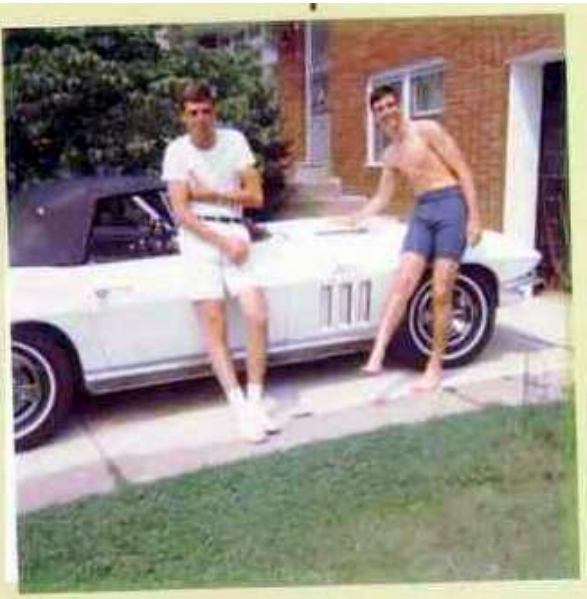
1. Platform: Mainframes like **IBM's** ground-breaking Model 360, that filled a large room with their iron core memory CPUs, noisy card sorters and tape drives, huge disks - the reason so many hospital DP shops were located in the *basement* back then!

2. Vehicle: **1966 427 Corvette** – ideal symbol of a mainframe: 425 horse monster I drove to my first job at SMS in King of Prussia in 1969 – only got 10 MPG but sure impressed the lady programmers!

3. Vendors: - **IBM** which totally dominated their "**BUNCH**" **GR**oup of competitors: **B**urroughs, **U**nivac, **N**CR, **C**ontrol Data, **H**oneywell, **G**E and **R**CA.

1970s – Shared Systems

- What do you do when you've sold all the large hospitals a 360?
- Share a mainframe among many small to mid-size hospitals!
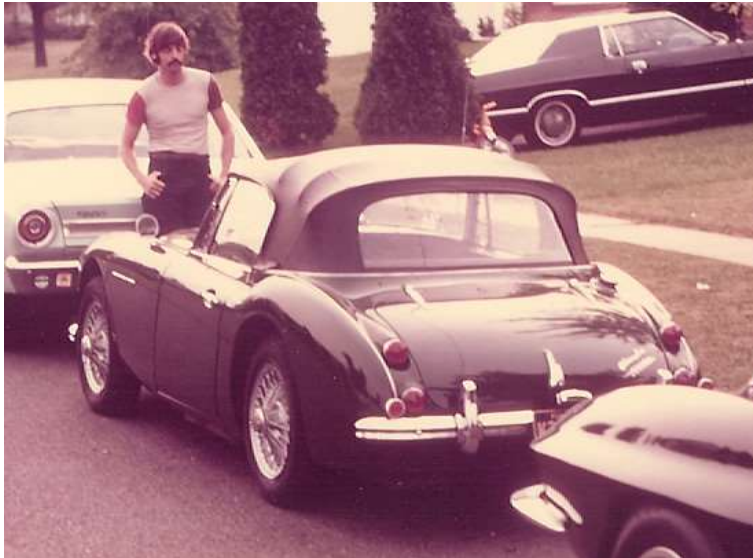
1. Platform: 1 or 2 large **mainframes** in a shared data center connected by 1200 baud (whew!) phone lines to (eventually) hundreds of clients nationwide. I/O devices: keypunch cards & readers, green-bar paper.

2. Vehicle: 1967 **Austin Healey 3000** – I had to *share* it with my new bride schoolteacher as we couldn't afford *both* the big 'vette and a home mortgage back in the 1970s…

3. Vendors: **GE** was the first dominant shared player with their Medinet system, rapidly followed by upstart **SMS**, aero giant **McAuto**, and **Tymshare** from Cupertino, CA. Local Blue Crosses in many states around the country also offered shared systems…

1980s – Minicomputers

• As Moore's law predicted, minicomputers soon grew enough power to cut the cords between hospitals and their shared system vendors:

1. <u>Platform:</u> a fraction of the size (and cost!) of a mainframe, early minis first computerized *clinical* areas (eg: order entry) in many community hospitals.

2. <u>Vehicle:</u> 1974 **Porsche 911** – *fast* for such a small engine (only 2.7 liters – less than half the 427 'vette); I rolled it on my commute to McAuto in 1981!

3. <u>Vendors:</u> dozens of companies offering HIS & ancillary systems took over the market from shared systems in the 80s, most notably turnkey mini upstarts like **HBO** and **Meditech.**

1990s – Microcomputers

• PC systems offered amazing breakthroughs in the 90s, taking automation beyond core financial and clinical apps, to the ***bedside***!

1. <u>Platform:</u> we laugh today at the floppy disks and main memories measured in *kilo*bytes (K) in early PCs of the '80s

2. <u>Vehicle</u>: 1969 **Honda CB750** – Japan's breakthrough motorcycle that conquered the 2-wheeled world, starting my bike collecting fetish. Only 67 HP, but faster than most cars!

3. <u>Vendors</u>: dozens of companies introduced PC systems, with two standouts being **HMDS**' total HIS (on DOS/Novell!), and **Medtake** offering one of the first bedside terminal systems.

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Episode # 2:

Epoch Overlap

How mainframes, shared systems, minicomputers and microcomputers managed to *live together* in a not-so-peaceful coexistence over the 4 decades of HIS-tory.

Epoch Overlap

The 4 epochs of HIS systems (mainframes, shared, mini, and micro) *overlapped greatly* over the 4 decades of HIS-tory:

   • **Mainframes** were strongest in the 60s, led by IBM's breakthrough 360s, and lasted well into the 1970s when most large hospitals had a mainframe in the basement.
   • In the '70s, some large hospitals migrated to shared systems, and in the 80s, minis grew in power to gradually erode mainframe's market dominance.
   • Only in the 90s were mainframes becoming scarce.

	60s	70s	80s	90s
Mainframes (eg: IBM, "BUNCH")	++++	+++	++	+

Shared Systems

Sharing of mainframes started in the late 60s with IBM's SHAS (Shared Hospital Accounting System), which enabled many vendors and Blue Cross plans to share a costly mainframe among smaller hospitals. By the 70s, *thousands* of hospitals were sharing systems, from giants like **GE**, **SMS**, **McAuto** and **Tymshare**. It took decades and the growing power of minis and micros before shared systems lost their dominance, although SaaS and "Cloud" computing may mark its resurgence…

	60s	**70s**	**80s**	**90s**
Shared (eg: GE, SMS, McAuto, Blue Cross/Shield, States Associations…)	++	++++	+++	++

Minis go Maxi!

	60s	70s	80s	90s
Minicomputers (eg: DEC, DG, HP…)	+	+++	++++	+++

The first minis were developed in the 60s, such as DEC's PDP-1, but they didn't gain much market share in the HIS market until the 70s with pioneers like **McAuto's** (yes, the *shared* system giant!) HDC & MHS, **HBO's** MedPro & IFAS, and **SMS**' ACTIon series. Minis really dominated the 80s with "Total HIS" offerings such as **Dynamic Control** on **IBM's** Sys 38 and AS/400. Only in the 90s did they lose some ground to the next upstart:

Micro Monsters

It's hard to remember just how amazing the PC revolution was in IT back then, but **Apple** IIs were looked upon with derision in the late early 80s when they first popped up in ancillary departments. Ironically, it was **IBM** who legitimized the genre with their PC circa 1982, and their later PS/2 suite. On the software side, DOS devotee's resisted GUIs right up until Windows 95, by which time even shared and mini vendors adopted PCs as terminals, and pioneers like **HMDS** offered an HIS!

	60s	**70s**	**80s**	**90s**
Microcomputers (eg: Apple, IBM…)		+	++	+++

H.I.S. Epochs

So here's the full picture: how platforms rose & fell like the tide. The hardware line today has blurred completely as "servers"…

	60s	70s	80s	90s
Mainframes (eg: IBM, "BUNCH")	++++	+++	++	+
Shared (eg: Blues, States, Commercial…)	++	++++	+++	++
Minicomputers (eg: DEC, DG, HP…)		+	+++	++++	+++
Microcomputers (eg: Apple, IBM…)		+	++	++++

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Episode # 3:

Terminology

How even the *words* we used to describe computer systems evolved over the 4 decades of HIS-tory.

Terminology Evolution

The *words* used in the HIS industry evolved as radically as the clothes we wore:

- <u>Industry</u> - In the 1960s, computers were called *exactly* that – how quaint!
- <u>Salesmen</u> – were also called that directly, a slimy word they avoid assiduously today…
- <u>Service</u> – **IBM** called the person who followed the salesman a "system engineer"
- <u>Sharing</u> – was called that too: how simple! No way to charge a lot for just one word…

	Industry	Sales	Service	Sharing
60s	Computers	Salesman	System Engineer	Time Sharing

Terminology in the 70s

In the 1970s, semantics advance as fast as technology when shared systems suddenly made data processing affordable:

- Industry – **EDP** or "Electronic Data Processing" was the buzzword for our business; it sure beat just " D.P."!
- Salesmen – became "marketing reps," far more sophisticated and knowledgeable than mere salesmen!
- Service – When I joined **SMS** in 1969, I started out by *installing* systems, hence was known as an "***installer***."
- Sharing – Shared *System* companies included telecom networks, terminals, programmers, sales & service reps,   as well as the mainframe "data center" itself.

	Industry	Sales	Service	Sharing
70s	(Electronic) Data Processing	Marketing Representative	Installer	Shared Systems

Terminology in the 80s

In the 80s, words perversely got bigger, while CPUs shrunk from room-sized mainframes to filing cabinet size minis:

- Industry – Was now known as **MIS** or "Management Information Systems," how *very* sophisticated!
- Salesmen – were now "Sales **Consultants**" they didn't *sell* you minis, they *advised* you about them…
- Service – Installer became **Installation Directors (ID)** who directed hospital users how to do all the work.
- Sharing – got a lot more sophisticated when Jim Carter at **SMS** invented "RCO" for Remote Computing Option, which **Cerner** later dubbed "remote hosting."

	Industry	Sales	Service	Sharing
80s	M.I.S.	Sales Consultant	Installation Director (ID)	Remote Hosting

1990s & 2000's *Terminology*

My, have we gotten sophisticated:

- <u>Industry</u> – MIS was first shortened to just "IS," and then became today's "**IT**" – now we're cooking!
- <u>Salesmen</u> – became account ***executives*** in the 90s, gaining them entrée to the C-suite. Today, most are territory managers or directors at a minimum…
- <u>Service</u> – IDs are now gone: they all have since become "**Implementation Consultants**," just giving advice
- <u>Sharing</u> – ASP, **SaaS**, **cloud** computing, *wow*, that sure beats sending your data down a silly phone line…

	Industry	Sales	Service	Sharing
90s	I.S.	Account *Executive*	Implementation Consultant	ASP SaaS
2000	I.T.	Territory/ Regional VP	Want Ads!	"Cloud"

H.I.S. *Terminology* Evolution

So here it is at a glance: how semantics has become as complicated as the underlying information technology (and looks so much better today too, no?)

	Industry	Sales	Service	Sharing
60s	Computers	Salesman	System Engineer	Time Sharing
70s	(Electronic) Data Processing	Marketing Representative	Installer	Shared Systems
80s	M.I.S.	Sales Consultant	Installation Director (ID)	Remote Hosting
90s	I.S.	Account *Executive*	Implementation Consultant	ASP SaaS
2000	I.T.	Territory/ Regional VP	"Sir"	"Cloud"

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Episode # 4:

Management Fads

How the way we *managed* hospitals and vendors, as well as how their computer systems evolved.

Evolving Management *Fads*

- Just as computers & terminology evolved over the past 4 decades of HIS-tory, so too have the management principals used to govern them. These intellectual fads and the prophets who create them come and go just like hardware platforms do.

- The "Big Four" trends followed by both hospital and IT executives in each of the past four decades are:
  - 1970 = "**MBO**" or **M**anagement **B**y **O**bjectives
  - 1980s = *Productivity* - # of widgets per hour/day/month
  - 1990s = **TQM/CQI** – **T**otal **Q**uality **M**anagement/**C**ontinuous **Q**uality *I*mprovement
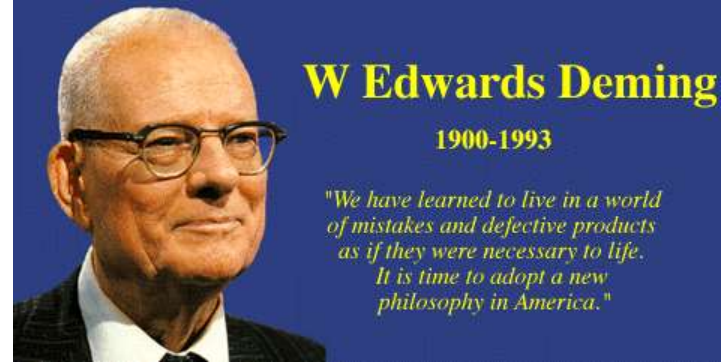 - 2000s = **Six Sigma** - *This* one is for real…

1970's "MBO"

- First made famous by **Peter Drucker's** book "The Practice of Management," published in the mid-1950's.

- I learned **MBO** first hand at SMS in the early 70s after CEO Jim Macaleer attended a **Drucker** seminar, then came back and instituted monthly "Status Reports," whereby each manger had to write a report and meet with their boss on:
  - What we did *this* past month, followed by
  - Our goals for *next* month.

- Seemed simple, until next month, when your boss pulled out last month's report and asked, "What about these *other* goals you listed?" or "Is that all you did *this* month?"

- Surprisingly effective to keep everyone's eye on the ball, and start to document more realistic goals!

1980's = "Productivity"

- In 1980, I bolted **SMS** and moved to **McAuto**, the other giant shared system, and there met *the* productivity guru: **Bill Corum**, VP of Operations (the shared data center).

- Bill piloted the Health Services Division's (HSD) productivity program, which applied statistical analysis, measuring output from a production process, per unit of input. His data center ran so efficiently, Chuck Barlow had Bill expand the program to much of HSD. An airplane company was a natural home for a scientific approach to management.

- Bill was easily one of smartest and nicest (a rare combination in IT!) executives I ever worked with, and he eventually took over McAuto during Chuck's later illness. He retired to California, but has sadly since departed...

1990's = TQM/CQI

W Edwards Deming
1900-1993
"We have learned to live in a world of mistakes and defective products as if they were necessary to life. It is time to adopt a new philosophy in America."

- I wonder if **Edwards Deming** would recognize how his management philosophy swept the US in the late 90s, after his pioneering efforts in post WWII Japan.

- The acronyms stand for:
  - **TQM** = Total Quality Management
  - **CQI** = Continuous Quality Improvement

- This approach to management centered on *quality*, that is, error reduction through improved design, service, and manufacturing, as well as through rigorous testing and applied statistical methodology.

- Ironically, HIS *vendors* attended **TQM** seminars en masse in the 90s too, and learned **Deming's** concept of "partnering" with suppliers, for example, to enable the "J.I.T." (Just In Time) inventory management approach.

- Of course, sales executives latched on to this word and warped it into today's pathetic mantra: "we're not a *vendor*, we're your *partner*!"

- Poor Edwards would roll over in his grave (he died in 1993)…

2000's = Six Sigma

- Also known as "*Sick* Sigma," this latest and greatest management fad had its origins in Motorola in the 80s. Like **TQM**, Six Sigma seeks to improve the quality of process outputs by identifying and removing the causes of defects (errors) and minimizing variability in business processes. It creates a special infrastructure of people within an organization ("Black Belts", "Green Belts", etc.) who are experts in reducing errors to less than 3.4 per million.

- So what's new about **Six Sigma** versus **TQM** Productivity or **MBO**? This cartoon says it far better in pictures than than I can in words!

Evolving Management Fads

- So there you have it: the four great "breakthroughs" in management over the past four decades of the HIS industry:
  - 1970 = "MBO"
    - Management By Objectives
  - 1980s = *Productivity*
    - # of widgets per hour/day/month/year
  - 1990s = TQM/CQI
    - Deming from post WWII Japan
  - 2000s = Six Sigma
    - *This* one is for real!
- Which one has *your* organization embraced? To quote your CEO, this new one he or she has found, one that *really* works…

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Episode # 5:

"Pre-*Cursors*"

A pathetic pun on the creative and pseudo-automated systems that presaged HIS computers.

What came *before* 60's Mainframes?

- My apologies to other English majors out there, but I call them "Pre-*Cursors*," the best IT pun I've ever come up with!

- In truth, it's an accurate term, as these pre-EDP system were used long before the first CRTs (and their cursors) were invented...

- They're what we converted hospitals *from* when we installed pioneering systems: cardboard posting cards, made by **Burroughs**, **NCR**, and others.

Pre-Cursor "Systems"

- How did they work?
  - Simple: an operator typed charges & payments onto a cardboard ledger card for each patient visit/admit.

- Cost for pre-cursor systems?
  - *External*, to the vendor:
    - Machine = low 5-figures, posting cards = pennies each!
  - *Internal* payroll costs:
    - Staffing = *one* FTE (that's Betty above) handled the entire patient accounting posting volume at the first 300-bed community hospital I shattered, er, converted in 1969…

Typical Pre-Cursor Patient Bill

- How could only *one* FTE type all of the charges on every patient's bill back then?

- Take a look at this actual bill from the "pre-cursor" posting card days, and you'll see why:

  – There were no **DRGs**, **CPT** or **ICD**-9 (let alone ICD-10!) codes, co-pays, insurance deductibles, etc.

  – Indeed, the original **SHAS** program we installed in 1969 couldn't handle a charge over $999, or an account balance over $99,999!

1960's "Next Generation" Pre-Cursors

- A *magnetic card stripe* posting card!
  - **NCR**, **Burroughs** and others made a breakthrough in ledger cards when they added a magnetic stripe to the side that stored all previous transactions.
  - Now, all an operator had to do was enter the new charge or payment, and the system would add/subtract it from the balance automatically!
 - Whew, hot stuff! Now, an ATB could be printed in a few *hours*, rather than several *days*…

5081 Hollerith Card Systems

- Invented for the 1890 (yes, Virginia, *1890*, not 1990) census, Hollerith's 80-column cards were a mainstay of American businesses throughout the 1900s, and two hospital pre-cursor systems put them to use:

  - **Litton-McBee**
    - Basically, keypunch cards with needle-sorters, this ingenious system was purely mechanical, with operators using a long needle to "sort" the 5081 cards by the holes in their columns.
    - Of course, an overly eager operator could always push a little harder and create a hole to get through faster!
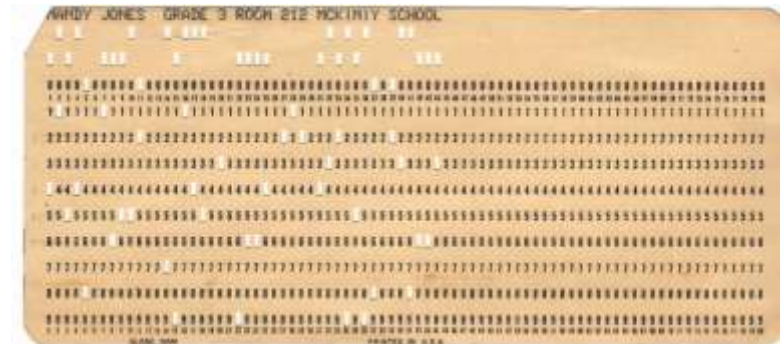
MEDELCO's "Card Drop" System

- I never *saw* this one, but heard many stories about this pioneering "order entry" system from the "old folks" (people over 30) when I joined **SMS** in 1969.

- It worked by having a stack of cards for every item a patient might be charged for (today's CDM),

- And a card created for every patient (w/account #).

- Nurses then dropped the patient's card into an **IBM** 1056 card reader, followed by the cards for the items they wanted to charge for.

- Here's a pic of a 1052 "Selectric" keyboard next to a 1056 reader:

Keypunch Card Systems

- **IBM's** 1401 card sorter system was probably the mainstay of pre-cursor EDP systems in the 50s and 60s.
  - Not that **IBM** had a monopoly on the technology - they had a monopoly on the *industry*, as the next installment explains.
- Based on Hollerith's 5081 cards, they sorted and printed them in myriads of ways to print ATBs, etc.
- We used them heavily in the 60s and early 70s as the I/O device computers.
- They were also great for writing notes, and fit into shirt pockets!
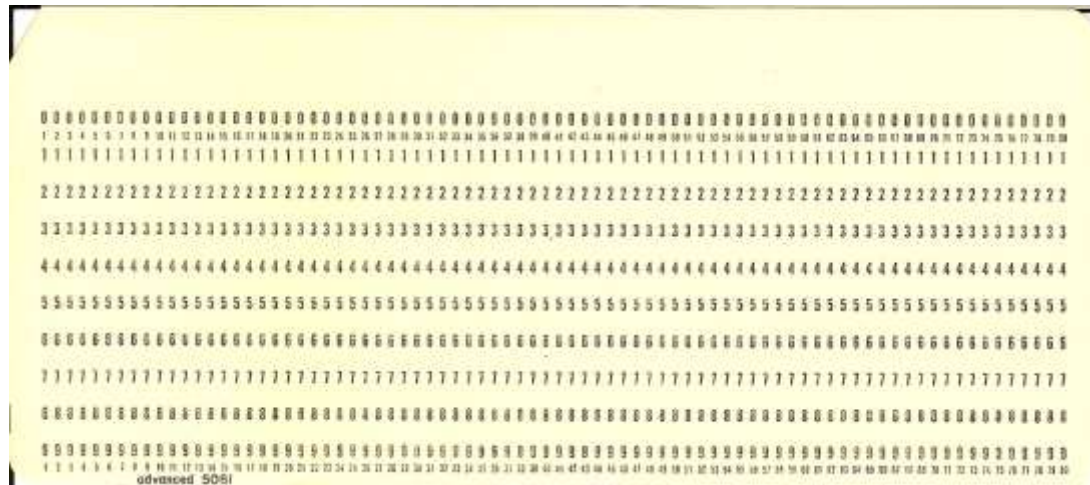
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Episode # 6:

Mainframes

I was born in in 1945 and raised in Philly – what a coincidence, so was the ENIAC the world's first commercial *mainframe*!

After the Pre-Cursors: 1960's Mainframes

- The first true computers in hospitals were "mainframes," like the **IBM** 360 pictured here. They took up *large* rooms and weighed so much most hospitals put them in the basement, where many "DP" shops still reside today.

- "Core" memory was 64 thousand (no "megs" yet!) of magnetic rings energized into binary on/off states.

- I/O was via the same 5081 Hollerith keypunch cards, and output was 11 X 17 green bar paper (CRTs were reserved for early black & white TVs!).

- Storage was mainly magnetic tapes, like these pictured:

An older iteration of the mainframe, I.B.M.'s System/360. In the 1960s, it introduced technology still in use today.

Typical 60's Hospital Mainframe Shop

For a glimpse into a hospital DP shop back then, I called **Karl Sydor**, a co-founder of our firm, now retired. He was DP Manager at **Perth Amboy General Hospital**, NJ, which had 550 beds in 1967, with a census that often ran 100% (no PPS/DRGs!). It was only the largest hospitals that could afford the *millions* mainframes cost then.

- Here's Karl in his 1950s Studebaker Super Hawk, a pretty good "auto" analogy to mainframes!

Perth Amboy's **Mainframe** Shop

Here's what Karl's "Data Processing" shop had:

- <u>Staff</u> – a total of 10 FTEs, a pretty big number back then, considering they replaced 1-2 ledger card operators from the '50s:
  - 3 Operators who ran JCL & tapes
  - 4 Keypunchers, for data entry, and
  - 3 Programmers, writing in COBOL.
- <u>Hardware</u> – migrated with **IBM**:
  - First, an ancient 1401 card sorter, using keypunch cards
  - Later a 1440 which ran **D**OS (*Disk* Operating System), which used a rotating disk with a 2 Meg on-line!
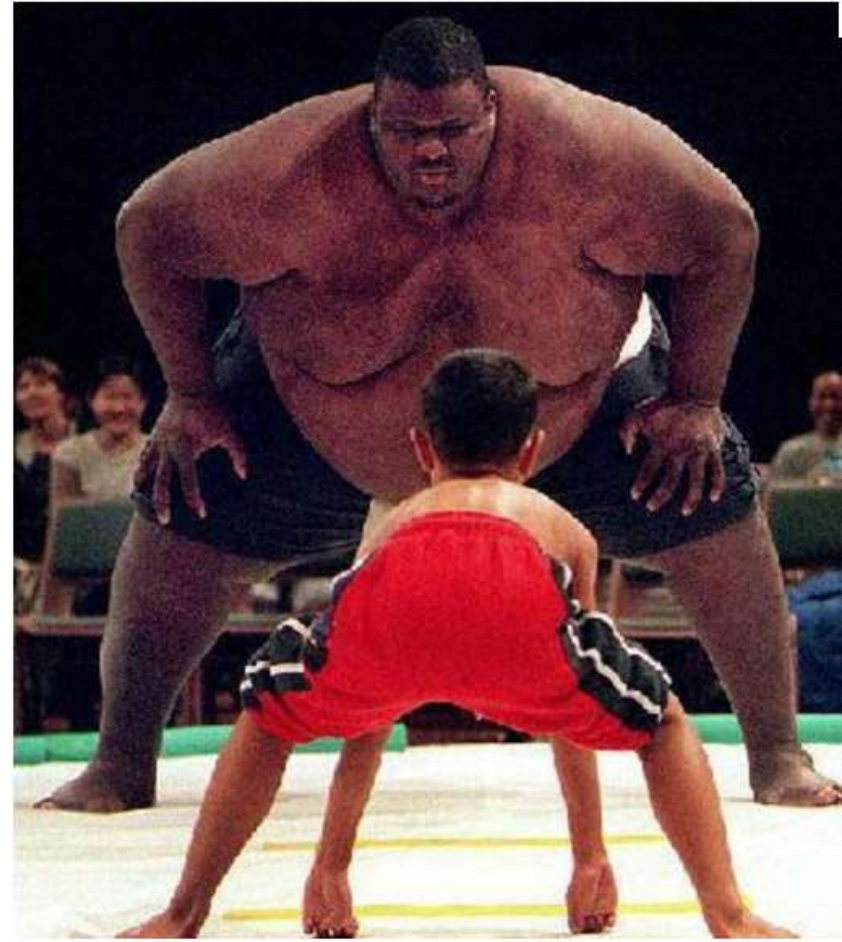 - Then finally, an **IBM** Model 360 (more about 360s later...)

Other 60's *Mainframe* Vendors

- IBM (aka Big Blue) pretty much dominated the 60s, out*selling* their many competitors, not through better technology, but a massive sales & marketing machine

- Who were their competitors?

  The "**BUNCH GR**oup:"

  – **B**urroughs

  – **U**nivac

  – **N**CR

  – **C**ontrol Data

  – **H**oneywell

  – **G**E

  – **R**CA

Mainframe *Software?*

- Most software was provided *free* to facilitate hardware sales
  - E.g.: IBM's "PAL" & "MISP," Burroughs' "Medidata..."
- Hospitals either modified these gratis packages for their own needs, or self-developed their own from scratch.
- Applications were mostly *financial* systems such as:

  - <u>Patient Accounting</u> = Census, Billing, & AR
  (RCM in today's lingo)
  - <u>General Accounting</u> = AP, GL, PR, HR, & Inventory (ERP today)
  -After all, **ENIAC** started out in 1945 as a *calculator* for shell trajectories!
  -Only a few census reports ever got to nurse stations, as paper worksheets for nurses to handwrite TPR logs, shift reports, or patient conditions…

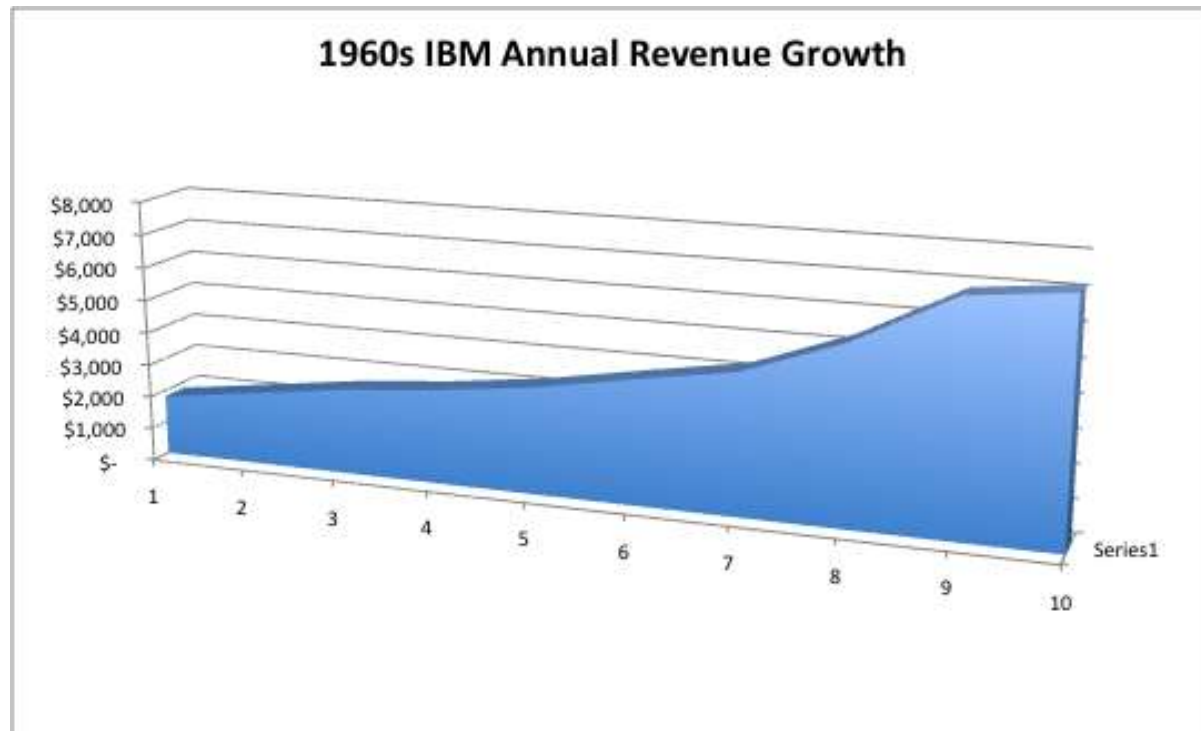# "H.I.S.-tory" by Vince Ciotti

Episode # 7:

IBM's Dominance

2011 = the year of IBM's 100th anniversary!

IBM's Mainframe Dominance

- **IBM's** rule over the 1960s mainframes was as total as **Microsoft** Windows & Office dominate PCs today

- It was decidedly *not* due *to* technical superiority!

  - **BUNCH** group devotees swear they had equal or better price performance, MIPS, memory, storage, peripherals, etc.

- **IBM's** revenue during the 60s grew about as rapidly as the length of men's hair (& *inversely* to the length of ladies skirts!)

1960s IBM Annual Revenue Growth

$8,000
$7,000
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$-

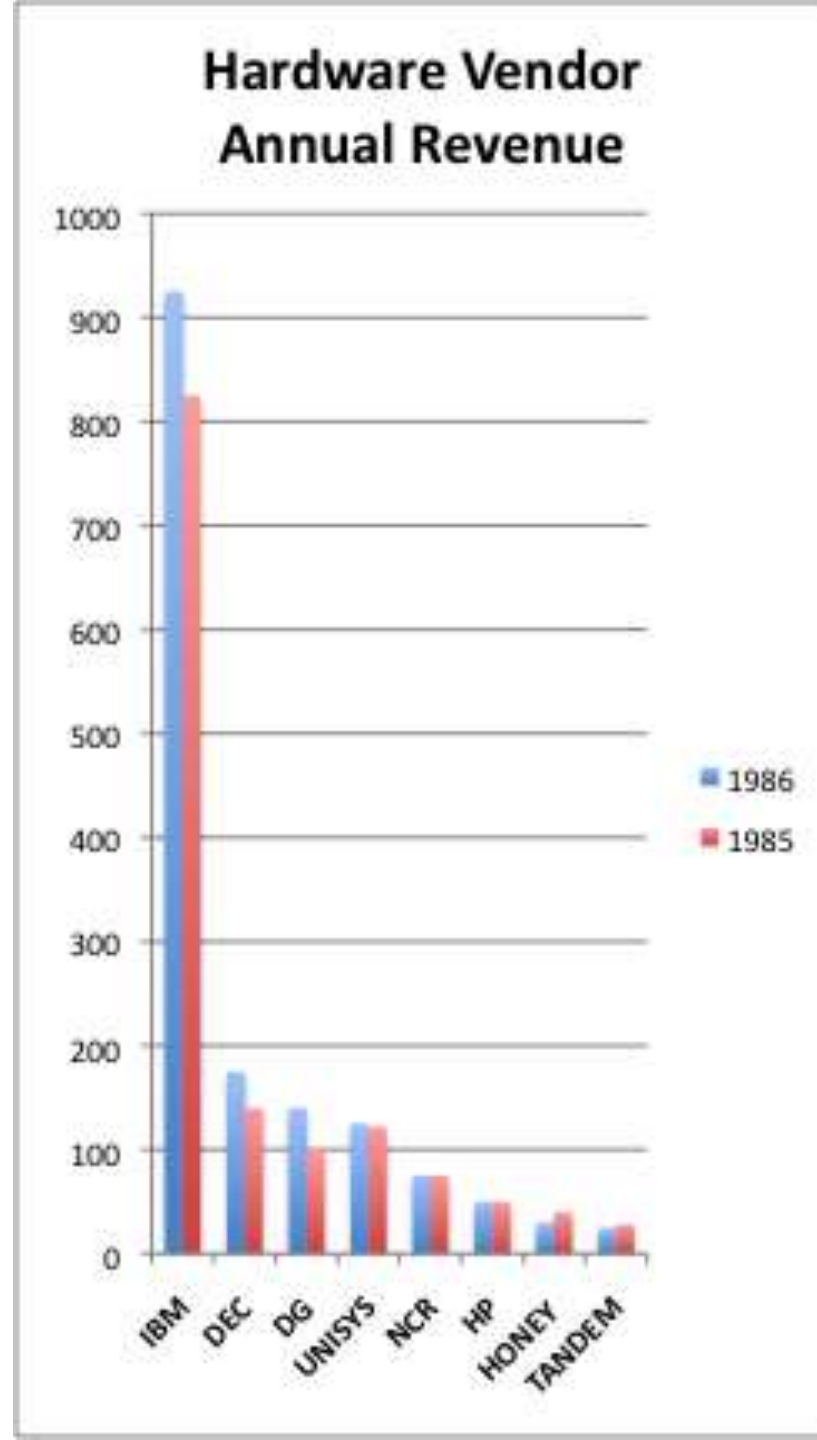1   2   3   4   5   6   7   8   9   10

Series1

What Gave Big Blue the Lead?

- It was IBM's corporate emphasis on *sales & marketing* gave them dominance in Healthcare as well as most other industries:
  - <u>Sales</u>:
    - Known for the best **paid**, trained & supported $alesmen
    - Easily recognizable in their expensive grey suits, starched white shirts and shiny wing-tip shoes!
  - <u>Marketing</u>
    - Huge advertising, T & E, and "other" budgets as well…
    - IBM spent *millions* in marketing, versus the BUNCH's thousands, creating an image of superiority that stuck.
- Leading to the famous '60s mantra:
  - *"Nobody ever got fired for buying IBM…"*

Just How Big?

- The earliest document I could find in my archives of old HIS magazines was in 1987, when figures were published from **Sheldon Dorenfest**, whose "Guide" to the HIS industry lives on today as HIMSS Analytics.

- This chart shows how **IBM's** annual revenue in Healthcare for 1985 (red) and 1986 (blue) about equaled the entire total of their next six competitors combined!

- Their bubble finally burst in the early 1990s, when **IBM** recorded its first quarterly loss in decades…

- Today, "service" outsells hardware.

Hardware Vendor Annual Revenue

Legend: 1986, 1985

Vendors: IBM, DEC, DG, UNISYS, NCR, HP, HONEY, TANDEM

System/360 "Breakthrough"

- The System/360 was **IBM's** mainstay 60's mainframe, both in terms of technical details & marketing hype

  - Technical:
    - 19 memory options, 40 peripherals, remote telecom, *b*illionth of a second cycles, 8 meg core, 5 meg DASD...

  – Hype:
    – Only Apple can create such a media sensation today:
      - *"...100,000 businessmen in 165 US cities attended today's System/360 announcement..."*

System/360 Pricing

- Like **Microsoft** in the 90s, **IBM** ran afoul of anti-trust monopoly investigations several times due to their pricing policies of lease rather than purchase, and bundling of hardware with software & utilities.

- Lawyers as good as their salesmen saved the day however, as the "consent decree" forced the unbundling of hardware and software, and gave clients the option of buying or leasing each.

- Typical 360 prices? Ranged widely by model: 360-20, 360-40, 360-50, etc.,:

  - Monthly rentals = from $3K to **$115K**

  - Purchase = from $133K up to **$5.5M**

  - (note $1 in 1960 economy ≈ $6 in today's!)

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Episode # 8:

Clinical Mainframe Systems

How Mike Mulhall's dream eventually came true…

IBM's *"H.I.S."* Pilot

- **IBM's** dominance of mainframe hardware had one real soft spot: *software*! To keep ahead of the BUNCH group, they started a daring project in the mid 60s at:

- **Monmouth Medical Center**
  - About 400 beds then, in Monmouth, NJ (today, part of St. Barnabas…), that signed up with **IBM** to pilot a complete suite of *clinical* software, to compliment the growing array of financial systems like AR, GL, etc.
  - Monmouth was one of the first "early adopters," known then as a "development site," for **IBM's** foray into automating clinical systems.

REFLECTING BACK

Before PCs and PDAs
An IBM Model 1620 experimental nurses' station computer, being tested in 1966 by Akron Children's Hospital, Akron, Ohio.

Mike Mulhall

- Armed with MBA from Notre Dame, a brilliant mind, winning smile, and more charm than a leprechaun, Mike was **IBM's** young project manager at Monmouth (he later became **SMS**' VP of Installations). He was truly an HIS pioneer and wonderful man, sadly long departed…

- Mike regaled us at later **SMS** ID classes with stories of life on a nurse station, where **IBM** got him unfettered access to the ins & outs of daily hospital clinical operations.

  - His task was to automate the daily activities of nurses & physicians,
  - Using "modern" 1050 terminals like the one pictured on the right on Monmouth's busy nurse stations

The First Clinical Apps

- After studying the way physicians ordered tests, meds, procedures & supplies, Mike started with order entry, although it had no such name back then – just "HIS."

- He realized OE was key to communications within a hospital, and lent itself to computerization of the "paper chase" that snarled hospitals then & now:
  - MDs scribbling orders on an order sheet in the chart
  - RNs "red-lining" each order as they transferred them to:
  - Multi-part paper requisitions or "zip sets" which had carbon paper between each sheet, pulled apart to create:
    - An *original* copy for the chart, proving the RN did her part,
    - A copy that was hand carried to the ancillary department,
    - A copy for the Business Office known as a "charge ticket."

"Point of Care" in the 60s

- Mike decided to use **IBM's** 1052 terminals (based on their ubiquitous "Selectric" typewriters) to communicate these orders directly between nurse stations and ancillaries, with *no* paper requisitions or charge tickets!

- Problem was, 1050s required a lot of weird keystrokes for the crude telecom software of the 60s, like hitting 2 keys simultaneously for EOB (end of batch) and EOT (end of transmission) after *every* order.

- When nurses rebelled at learning all these complex keystrokes, Mike came up with plastic overlays to lay across the keyboard, one for Lab, RX, etc.

Nursing "Revolution"

- To no avail: most RNs of the 1960s had never even *seen* a keyboard, let alone a computer terminal, and only Ward Clerks (today's Unit Secretaries) knew how to type…
  - (sound like today's MDs typing into CPOE?)
- So Mike next tried a cadre of "Kelly Girls" (that's what they were called in those days!) to sit in the basement with headsets and rapid typing fingers.
  - (sound like the "scribes" MDs use for CPOE today?)
- Each floor had a "hot line" phone directly to *their* Kelly Girl, who answered and typed what the RNs told them to.
- Needless to say, all these costs soon killed the project…
  - (boy, doesn't *that* sound familiar!)

Monmouth's Legacy

- Mike brought this priceless experience to **SMS** (Shared Medical Systems – today's Siemens), where he was instrumental in helping design and guide a whole host of eventual clinical successes, including:
  - Unifile (its own story later)
  - ACTIon (a MedPro competitor)
  - Action 2000 (mainframe success!)

- Of course, Mike and **Monmouth** weren't the only ones pioneering clinicals...
- Stay tuned for the next installment of many other early mainframe classics, some of which are *still* running today!
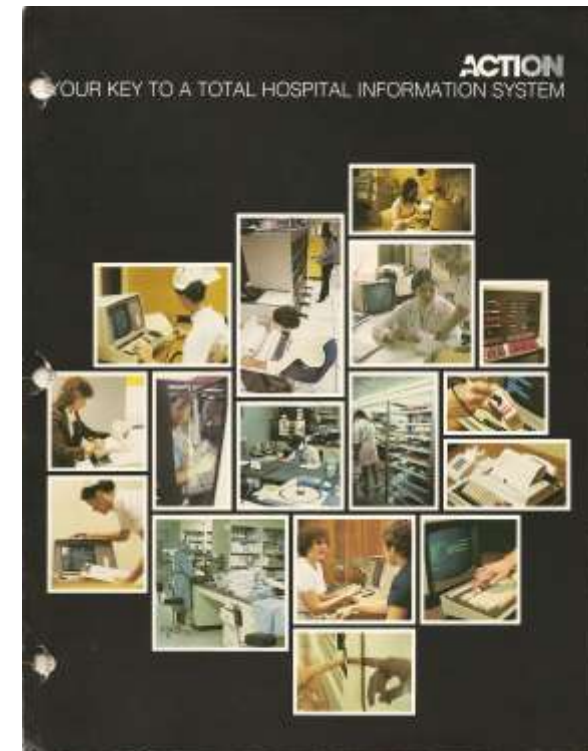
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Episode # 8:

Mainframe *Clinical* Classics

How Mike Mulhall's dream eventually came true…

Clinical **Mainframe Classic**

- While **IBM's** "HIS" pilot at Monmouth was floundering, several other mainframe systems succeeded in making clinical software take flight, the most famous and long-lived:

- **<u>Lockheed</u>**
  - Yes, *the* Lockheed Missles & Space Company, that built rockets for NASA in the early 60s,
  - Actually got its clinical system start when the US space program declined in the late 1960s,
  - And they found themselves with hundreds of engineers in their Sunnyvale, CA, facilities,
  - With a paucity of "down-to-earth" projects to apply their high technology expertise to.
  - So way back in 1967, Lockheed teamed up with one of the biggest names in Healthcare to build a "Medical Information System" (MIS).
    - This classic Lockheed ad sold recently on eBay:

HOSPITALS ARE TRYING TO CURE THE COMMON HEADACHE.

Lockheed Information Systems

MIS Pioneers

- Some of the most famous names in HIS-tory worked with Lockheed's amazingly precocious MIS system *after* it was later sold to Technicon, including such notables as:

  - **Bill Childs**
    - Recent recipient of CHIME's lifetime award, founded "Computers in Healthcare" the *first* HIS rag, circa 1980

  - **George Kennedy**
    - One of the *first* HIS consultants ever, formed The Kennedy Group in '78, sadly passed away far too early…

  - **Ron Johnson**
    - Renowned HIS maven, and author of numerous studies on HIS vendors, Ron sold for McAuto in its early years.

  - **Ralph Korpman**
    - Early CMIO before there was such a term, Dr. Korpman went on to create UltiCare, it's own HIS-tory later…

O. George Kennedy, PhD
Founder, The Kennedy Group

Mayo Clinic(al) Pilot

- Seems the Mayo Clinic has been in the forefront of Healthcare forever, and they became **Lockheed's** first development partner back in 1967 to lay the groundwork for MIS clinicals.

- **Lockheed** sent its best and brightest (?) off to Mayo's HQ in frozen Minnesota to start work on their version on the same Order Entry app that had stumped **IBM** at Monmouth, only this time with *MDs* doing the order entry (Mayo's are salaried!)

- Whether it was the weather or not, the Mayo CPOE project froze solid, and **Lockheed** found a far hotter prospect at El Camino Hospital in warm southern CA…

- Why El Camino? They were the first in a long string of "pilot" sites who trail-blazed the way to today's E.H.R.s…

MIS' Technical Breakthroughs

- **Lockheed's** brilliant engineers created several technological innovations that live on to this day in our "modern" EMRs:

  – **Matrix Coding** - Since 1970 programmers had little prior experience with HIS systems, they built this ingenious tool for hospital users to create their *own* screens for ADT, orders, etc. - the "screen painter" of today's systems! For CPOE, this enabled MDs to build customized order sets decades long before Zynx…

  – **Video Matrix Terminals** – if you remember the keypunch cards for data entry we talked about last week, then a CRT (Cathode Ray Tube) was a miracle, manipulated by *light pens* Lockheed probably borrowed from defense systems. Solved the problem of teaching clinicians how to type decades before Apple popularized (stole?) Xerox PARC's mouse!

MIS-ogyny

(Sorry for these sick puns, but I *am* a frustrated English major…)

MIS was sold & renamed repeatedly over it's 40+ years:

- **Technicon**
  - Like later aerospace giant McAuto, Lockheed eventually abandoned healthcare & sold **MIS** to them.
  - A major Lab instrument player, Technicon had a savvy clinical sales team that made over a hundred sales before selling to:

- **Whiteheads**
  - This family-owned business bought MIS from Technicon, but saved its name as "Technicon Data Systems," or **TDS** for short.

- **Revlon**
  - Hardly a *cosmetic* change, Revlon bought **TDS**, then sold it to

- **Alltel**
  - The communications giant around Y2K, who made TDS 7000 a far better version than TDS 4000…

- **Eclipsys**
  - Acquired it next, re-named it E7000, before they were bought by AllScripts in 2011…
  - *And it still runs **today** (2012) in a handful of hospitals!!*

Mainframe Clinical *Dead-Ends*

Despite the long-lived success of MIS, there were far more dead-end attempts at an E.H.R. than successes; each of these firms could be an HIS-tory episode in itself:

- **NADACOM**
  - Late 60s in FL/TX as "REACH"
  - 1973-75 = jv with Honeywell
- **DataCare**
  - 1970 at Roanoke Hospital, VA
  - 1980 bought by Ashland Oil
- **Spectra**
  - 1969 CA, sold to Medicus in 75
  - Acquired by Whitaker in '77
- **Anacomp**
  - Adventist Health System pilot

- **EDS**
  - 1979 Srs of St. Mary, St. Louis
  - Joint venture w/AMI (PHS)
- **Burroughs**
  - Late 1970 at Duke & Charlotte
  - Medidata, BHOS, BHIS…
- **CSC** (yes, *that* CSC!)
  - Tandem-based HIS in 1978 (one of few non-IBM!)
  - Long Beach Memorial CA pilot
  - Project ended circa 1981…

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Episode # 9:

IBM's "SHAS"

The great-grand-daddy of RCM systems…

IBM's "SHAS"

- **IBM's** "**Shared Hospital Accounting System**" (SHAS) probably automated more hospitals than any other system in HIS-tory. Ironically, it marked the *end* of **IBM's** 1960's mainframe dominance, and the *beginning* of shared systems in the '70s.

Why would **IBM** ever write a system that might end their near-monopoly of mainframes? Two answers: Sales & Medicare. Let's look at each:

1. **Sales** - By the mid-60s, most of the ≈1,000 large hospitals over ≈300+ beds who alone could afford the mega-bucks for a System 360 mainframe had already done so, so sales were slacking off a bit…

   – What better way to sell 360s to the ≈6,000 smaller hospitals (there were about 7,000 total US hospitals back then) than have 2 or 3 small ones share a 360!

   – So SHAS was launched as a joint project with 5 Minn. BC/BS hospitals, to enable member hospitals to share the cost of a pricey 360,

   – Plus the dozens of programmers and operators required to feed the beast!

   – Of course, no one in Armonk ever dreamed companies like **SMS** would end up sharing a few 360s among *hundreds* of hospitals - but that's a later story…

2ⁿᵈ Reason for SHAS: **Medicare**

- In 1965, Medicare or "Title XVIII of the Social Security Amendment" was signed into law by LBJ as part of his "Great Society" program.

- Title XIX created Medi*caid*, funded 50%/50% by states & the feds...

    - **Medicare** raised the bar in patient billing significantly

    - No longer could hospitals submit bills from simple ledger cards, but suddenly had to submit complex new billing forms, each filled out with different fees:

        - **Green 1453 bills for Inpatient charges**
        - **Yellow 1483 bill for outpatient charges**
        - **White 1554 bills for professional fees**

    - Sound simple, right? However, Medicare was administered by "intermediaries" in every state who each had their own ideas on how to fill out the boxes on each bill.

        - No HIPAA or EDI standards back in the 60s – state intermediaries ruled!

    - Besides billing complexities, **Medicare** introduced cost reports, which required elaborate "SSA 2552" step-downs forms for allocating costs between Medicare and other insurances via RCCAC, making general accounting much trickier too!

    - (ironically, **Medicare** also inspired Gerber & Huff to build CRASH at OSF in Peoria, which gave birth to another shared system giant – more on that story later...)

SHAS' Applications

So based on those **Medicare**-inspired beginnings, you can deduce what applications IBM's SHAS offered:

- **Census** – to capture the patient demographics required at the top of Medicare bill forms, plus room & board fees.
- **Billing** – both inpatient and outpatients, to crank out the **1453s**, 1554s and **1483s** *correctly*, especially that darned "Item T" for "miscellaneous" charges like Blood Bank.
- **AR** – with *pro-rated* balances to track what $s third parties should pay, versus deductibles & co-pays the patient owed.
- **GL** – to keep track of costs & revenues by department.
- **CAP** – a "Cost Allocation Program" to allocate the costs from non-revenue to revenue producing departments, to determine Medicare's fair share on 2552 cost reports.

Quite an attractive menu back then, when CFOs ruled DP!

SHAS' High Tech I/O

So how did those 5 hospitals spread out all over Minn. communicate with the central 360?

- Input:
  - The same ancient 5081 keypunch cards from the "pre-cursor" era were holed on 029 keypunch machines like that pictured on the right:

  - "Drum cards" automated mundane tasks like Mod 10 self-check-digits, duplicate date fields, etc.

  - Cards were batched and read into 1056 card readers, one agonizingly slow click at a time...

- Output:
  - 1052 terminals communicated over 1200 baud (that's *bits* per second, not *MB!*) leased phone lines

  - Green-bar paper printed daily census reports, while weekly ATBs were *shipped* via Fed-Ex or snail mail!
  - *On-line* AR & BL inquiries were hot stuff – though only updated as of last midnight's batch processing...

SHAS Flexibility

Some of the many innovations IBM built to make the fixed COBOL code of SHAS flexible for custom use among many users were :

- **Hospital Profiles:**
  - Records for each user hospitals to define their own parameters for Billing (Record 6), AR (7), hospital services (OJ) nurse stations (OK), etc.
  - When SHAS programmers hit key decision points, they reached out to a profile record on disk to see how each hospital wanted things done...

- **Report Selection Parameters:**
  - JCL cards that allowed each user hospitals to define their own parameters for reports like ATBs

  (sick to still remember all this detailed crap 40 years later...)

SHAS Remnants in 2011!

- So who cares about this ancient stuff? Well, amazingly, some of it is still used *today*, 40 years later!

- **TCEs** - Transmission Control and Error reports were created by the Balance and Edit program (BLE) to report errors in keypunch cards back to hospitals.

  - A paragraph printed for each batch of cards submitted, with errors identified by the card code (11 = Admit, 42 = Charge, etc.) and card number (eg: 3rd card in batch #145).

  - Sound familiar to you 600+ hospitals *still* running on Siemens' Invision today? Now you know why there's a "re-circulating error file:" *there are no keypunch cards to resubmit!*

How did **SHAS** sell?

- *Fantastic!* After all, it was being pedaled by **IBM** reps! **SHAS** was sold (along with pricey 360s) to *scores* of organizations, each processing *dozens* of hospitals, eg:
  - Hospital Associations and Blue Crosses in many states:
    - Michigan, Vermont/New Hampshire, New Jersey… to name a few,
    - Who followed in Minn. BC/BS's footsteps running it for members.
  - Large mainframe hospitals
    - SHAS financial apps were very functional compared to oldies like **IBM's** "PAL," so many large 360 users installed it just for their internal use.
  - And a growing number of commercial firms:
    - Eg: **GAMUT** in NYC, founded by John Depierro, a true HIS pioneer who sold SHAS to many New York hospitals in 1968 & 1969, before he went on to found **MDT** (Medical Data Technology) in NJ, sharing TDS!
    - And the biggest SAHS success story: **SMS**, our next HIS-tory subject, which *alone* installed SHAS in over 1,000 hospitals over 30 years…

SHAS' weaknesses

- So if SHAS was so great, why didn't *every* US hospital install it? Well, it did have a *few* flaws:

  - Complex **Job Control Language** (JCL) cards for operators were easily botched up by these low-paid, mere mortals, eg:

    - Don't forget, next Tuesday , Memorial closes its month-end...

      - ***What***, I said *Tuesday*, not *Wednesday*! Now we have to re-run both days...

    - Make sure to run this hospital profile maintenance for record 06, field 004

      - ***What***, you *didn't*? Now there will be tons of late charges to re-bill!

  - And, as with any new system, there were a few "oversights" and outright bugs:

    - No way to add an insurance to an account in AR after bills were rejected by third parties.

    - Maximum amounts in key fields too small: $999 limit on charges, $99,999 max for AR.

    - And god forbid you did profile mtn to records OJ or OK in the middle of a census run!

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Episode # 11:

Shared Medical Systems

The "King of Prussia" of shared systems…

1970's Shared Revolution

- IBM's **SHAS** marked the start of the next major epoch in HIS-tory: the explosion of *shared* systems in the 1970s. Most hospitals still open in the US today at one time or another processed their data via a shared system, probably from one of the following vendors:

  - **Shared Medical Systems** (SMS) – *the* shared success story, which lives on today as Siemens.

  - **McDonnell-Douglas Automation Company** (McAuto) – St. Louis, MO, the #2 shared giant.

  - **Tymshare** – Cupertino, CA, which acquired MDS (Medical Data Systems) from Bob Pagnotta.

  - **GE** – yes, *that* GE, the same one that made your refrigerator, was an pioneer and major shared system player with their "Medinet" system.

  - **Blue Cross/Blue Shields** – in *scores* of states, processing *dozens* of hospitals each, many running SHAS like MI, but some writing their own systems too.

  - **State Hospital Associations** – many states ran their own shared systems, eg:

    - CHART – Cooperative Hospital Application of Remote Teleprocessing in NY, that ran a pioneering shared system for about 20 up-state hospitals.

Shared Medical Systems

- The "King Kong" of shared systems has to be **SMS**. This chapter of HIS-tory is somewhat personal, for it is the story of how I got into the business back in 1969, when, by serendipity, I answered the want ad below at the placement bureau of Temple University.

  - Who was Dr Clyde Hyde in the want ad? One of the 3 founders of **SMS**, along with Jim Macaleer, CEO, and Harvey Wilson, of later Eclipsys fame.

  - All 3 were ex-IBMers, stellar performers in IBM's Philly office, who sold every large hospital in town a 360. Clyde left SMS early in the 70s…

    – The biggest sale Jim & Harvey pictured on the left ever made was to a Wall Street investment firm that advanced them $5M in start-up funds. That $5 Million investment eventually generated many, many *Billions* as you'll see! Each man brought their own unique skills to the start-up firm:
      – (Big) Jim = take-no-prisoners boss & fearless leader
      – Harvey = greatest salesman in HIS-tory, & later CEO
      – Clyde = clinical visionary, e.g.: *shared* ECG analysis!

Pennsylvania Roots

- Many people think of King of Prussia as **SMS**' early roots, but it actually started at Ross & Royal Roads in nearby Bridgeport, PA, where a cheap storefront housed SMS in a low cost strip mall, next to a Deli. This Google image shows the location today:

Why would 3 hot IBM-ers leave "Big Blue" and risk everything on a risky start up? Two reasons:

1. **<u>Entrepreneurial Spirit</u>** – Whenever asked by a "newbie" about just how big he envisioned SMS growing, Big Jim always answered: "As big as IBM." It's the essence of capitalism: we can **do** it! That's the same spirit that's inspiring Verona today…

2. **<u>Stock</u>** - the same profit motive that inspired IBM to write SHAS, motivated SMS' founders, whose goal from day one was to take SMS public in an IPO. How can we "moderns" relate to it? For you hospital not-for-profits, here's the hard math:

   - When I joined SMS in 1969, their stock was (over) valued at a penny a share. Jim and Harvey were generous, and gave promising employees a few hundred shares to motivate us for the long hours and intense effort it would take to succeed.

   - SMS eventually went public in the mid-70s, the stock took off, split many times, and that penny value soon became several *hundred* dollars per share! So a "X" hundred shares split into "Y" thousand shares, times "Z" hundred $s per share!!!

SMS Made SHAS Work!

- Jim & Harvey lured dozens of IBM's best & brightest with these stock options, and they did the impossible: they made **SHAS** *work!* The many bugs and gaps in the programs were fixed and plugged over many long nights and weekends by a bevy of SMS superstars:

  – Pictured at the right is **Tony Sammartino**, first operations manager over our leased 360; the lady is a model from an agency – boy did we gawk!

  – Tony Sam went on to hold many positions in SMS, most notably as Customer Service Center Mgr, handling innumerable hospital demands/requests

  – Other stalwarts on the left included **Jim Carter,** VP of Ops, who SMS recruited from California BC/BS, an early SHAS pioneer. Jim's afro was especially daring at early SMS, considering Big Jim was bald!

  – On Jim's right is **Karl Witonsky**, Technical VP over all programming and hardware; Karl had a brilliant mind and charming personality, a rare combination in the high-tech world of the 1970s! Karl is now with Falcon Partners, as major HIT "VC" firm today.

Dizzy Climb to the Top

There both highs *and lows* in SMS' HIS-tory:

- **<u>High Points:</u>** mainly sales successes by Harvey and his incredible team of ex-IBM sales superstars: John Marshall, Ron Dixon, etc.
  - Daughters of Charity = sold a dozen large sites w/inhouse 360s!
  - NYCHHC = dozen of the *largest* hospitals in the US, a huge win!
  - "Merger" with American Hospital Supply's "ISD" which netted:
    - *Four* competitors: CA's "CB2," Michigan's HCS, Texas & Georgia's BC/BS

- **<u>Low Points</u>**: in truth, SMS almost *tanked* several times as well:
  - June 30, 1970 "Regionalization" near-miss!
    - Programmers expanded SHAS' hospital code field from 1 to 3 digits so we could handle more than 36 clients. The system didn't come up for *days*…
  - ≈ 1972 = almost ran through the initial $5M…
    - Just turned the corner and hit the **black** with few $s to spare…
  - 1973 = UNIFILE: "breakthrough"…
    - Brilliant concept, but almost brought the 360 to its knees…

New products in the 70s

SMS added many apps & goodies to SHAS:

- **Financial Management System** (FMS):
  - Sexier name than SHAS, included home-grown:
    - Payables, Materials, Payroll, and Personnel
    - Designed by Tony Mirigliani, a 1401 pioneer.

- **Hotter I/O**: the crude 1050 card readers & character printers gave way to "SCC" high-speed terminals & IBM 2770s with CRTs!
  - *Microfiche*: ended heavy & costly green-bar paper shipments…

- **UNIFILE**:
  SMS' programmers saw MRI's "System 2000" at a Texas seminar, and came back inspired to build a new *on-line* **data base** system with real-time (not batch) transaction processing and a customer-controlled report writer! However, slow 360 system response times killed it…

Other SMS "Super Stars" of the 70s

Sales & Marketing:

- Harvey (HJW) eclipsed (???) many hero VPs under him, eg:
  – Ron Dixon, John Marshall, Jim Hall and Bob Fetters...
- He also hired/stole the "best & brightest" reps from IBM:
  – Ken Mansfield, Randy Harper, Scott Holmes...
  – Dick Davis almost sold **10** NY/NJ hospitals in *one* year!
- Even "promoted from within" turning IDs (Installation Directors) into sales stars, eg:
  – Kurt Lambert & Bob Flippin
- Pictures are from SMS' 40th reunion just held in King of Prussia in October, 2009:

Techies/Service:

- Tony Sam & Jim Carter
  - Data Center & CSC
- Mike Mulhall
  -Install VP, HIS guru...
  Ken Shumaker
  - Genius, Unifile father...
- Phil Jackson
  - Created ACTIon...
- Tony Sam
  - Master of all trades!
- Brian Kenny
  - Programming guru
- John Keyser
  - Kept the lights on!

How Successful *Was* SMS?

- Check out the math:
  - When I started in 1969, we had ≈10 hospitals, 30-odd (sic) employees, and annual revenue of a few million dollars.
  - When I left 10 years later in 1979, **SMS** had several *hundred* clients, over 400 employees, and annual revenue of ≈$100M.
  - By 1990, **SMS** had grown to almost 1,000 clients on both shared and minicomputer system products (our next HIS epoch), several *thousand* employees, and annual revenues of over $400M.
  - In 2000, when bought by Siemens for about $2B, SMS had over 7,000 employees, and annual revenue of $1.2B
  - Today, **SMS**' revenue is buried in Siemens ≈$100B Euros worldwide, so we *estimate* their annual revenue as ≈$2B
  - So, add up the 40 years of annual revenue and it's a staggering ***$22 Billion Dollars!!!!*** And it all started at Ross & Royal Roads, next to a Deli…

  - ***No wonder Jim & Harvey are smiling:***

"H.I.S.-tory" by Vince Ciotti

Episode # 12:

McAuto

A "high-flying" shared system…

2ⁿᵈ Shared System Giant: **McAuto**

- The second leader of the shared system revolution of the 70s was "McAuto" - McDonnell-Douglas Automation Company, the IT arm of the aircraft giant in St. Louis.

- Several interesting parallels with prior HIS pioneers:
  - The aerospace connection, like Lockheed's MIS system
  - Another Medicare-inspired R&D, shades of today's ARRA...

- Surprisingly, it all began with **HBO's** <u>Walt Huff</u>:
  - A name we'll hear repeatedly in the next HIS epoch on *minicomputers*, Walt was the CFO at the Order of St. Francis in Peoria, IL, when Medicare arrived.
  - He received a grant to fund R&D of a shared system called **Hospital Financial Control** (HFC), an upgrade of the CRASH system shared by OSF's hospitals.

What's this got to do with McAuto?

- You might ask… Well, a consultant from McAuto named **Chuck Barlow** (pictured right) was asked to look at HFC as a potential acquisition for this nearby St. Louis giant.

- Chuck wrote such a rosy assessment of HFC that McAuto said: OK, *you* run it – and he did!

- Chuck worked at Mac's **General Services Division** (GSD)

  Which ran a *huge* Data Center off I-270, offering systems like:

  CAD/CAM – computer-assisted design & manufacturing, daring stuff back then…

  GCPS = Group Claims Processing System for the Blues & commercial insurances

Health Services Division (HSD)

- Chuck wisely set up a totally separate division called HSD
  - Knowing full well that the government environment of GSD would stifle the entrepreneurial culture needed in a start-up.
  - Circa 1970, within a year of **SMS**' birth, HSD moved HFC processing to their data center in St. Louis, and started selling it.
  - Early sales heroes like Dick Schopp, Joe Kessel, & Charlie Keane made scores of sales around the country.
  - HFC's *on-line* edits (unlike SHAS' *batch* TCEs) were a hot ticket!
  - A major coup was HAI (Hospital Affiliates Inc) in Nashville, that installed HFC in *hundreds* of their owned sites around the US (like **SMS** did with American Medicorp).

HFC Growth Chart

Hospitals Served

600
500
400
300
200
100
0

1970 71 72 73 74 75 76 77 78 79 80 81
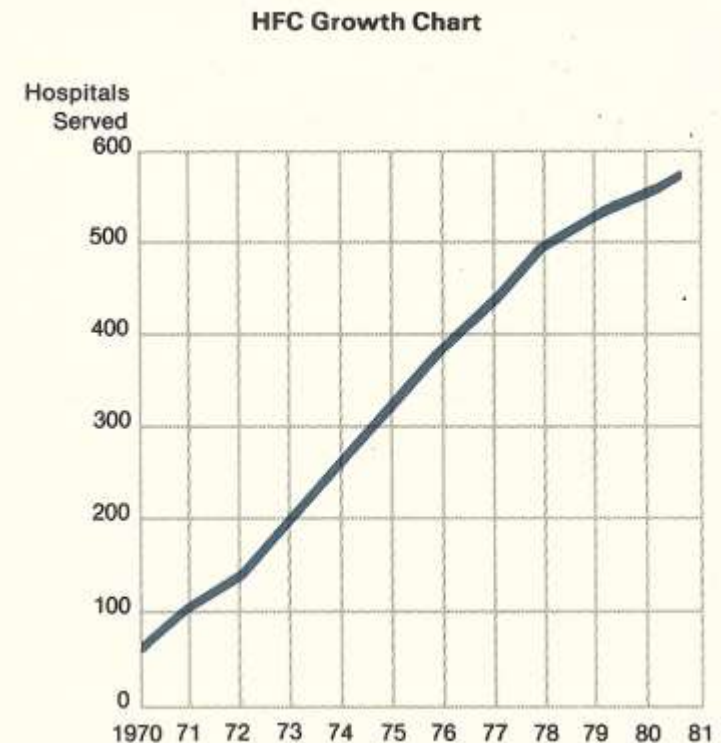
McAuto Breakthroughs in the 70s

HSD led the way in many areas in HIS systems back then:

- **Hospital Patient Care (HPC)**:
  - Piloted at nearby Missouri Baptist Hospital in the late 70s
  - With a full array of clinical apps:
    - Order Entry & Results Reporting
    - Nursing Documentation
    - Ancillary Dept. Modules
  - It was one of the first EMRs (we called it a "chart on a screen" back then), running on a *shared* basis from HSD's data center!
  - Needless to say, slow TP lines kept its sales *local*, but the R&D experience was priceless…
  - And it led to an inhouse version called PCS (Patient Care System)

- **Medical Records II (MRII):**
  - Chuck Miller led this abstracting & statistical reporting system automating *hundreds* of hospitals' HIM nationwide.
- Debacle: "IncoTerm" terminals
  - *Almost* eliminated keypunch cards (& HSD!)… damn things just didn't work!

McDonnell Douglas at work in the Health Care Industry

McAuto Superstars

Other Early Mac Products:

- **Patient Care System (PCS):**
  - Basically HPC run inhouse on Tandem mainframe systems
  - Its "Non-Stop" dual CPUs & disk drives *perfectly* suited an HIS!
  - With a full ancillary dept. suite: Lab, Pharmacy and Radiology.

- **Mini-based Hospital System**
  - After Mac bought a UK firm called Microdata that built pioneering minis running the PICK OS,
  - HSD bought rights to Skip Shippee's "MSA" mini-based HIS in NC that ran on Microdata minis.
  - But much more of mini-madness later in our next HIS epoch…

As at MIS & SMS, it took dozens of hard-working mavens like:

- Bill Corum
  - Brilliant, hard-working yet one of the nicest guys behind the scenes, who ran HSD's data center & telecom, and led HSD after Chuck Barlow's illness…

- Art Randall
  - Smart, fun, *superb* sales director who could sell screen doors on submarines!

- Melinda Costin
  - Amazing clinician/techie, renowned for her **passionate** HPC/PCS demos that sold systems on flipcharts & overheads!

Customer Service Ethic

McAuto had a defining characteristic I noticed after my 10 years at **SMS**: sales was surprisingly subservient to service. Two examples:

1. At **SMS**, sales & marketing (S&M) ruled the executive suite, to whit:

   - When I joined in 1969, there were *three* S&M VPs: Harvey, Ron Dixon and John Marshall, and only one VP on IDs: Mike Mulhall (of Monmouth fame).

   - At McAuto *10 years later*, Art Randal was only a "*Director,*" despite having every bit the talent of **SMS**' ex-IBMers, well able to duke it out out with them.

2. In **SMS**' field offices, the salesman had the corner office, the secretary reported to him, and we IDs (Installation Directors) had desks or cubes (my apologies for the preferential genders, but that's *who* was *what* back then…). In **McAuto's** field offices, the Client Service Manager got the corner office and secretary, while sales reps had cubes/desks.

C E R T I F I C A T E

Know all Ye PUNY HUMANOIDS by This Document that THESE PREMISES are HEREBY DECLARED to be a

VIRTUAL CORNER OFFICE

Therefore, its OCCUPANT shall be given all the PREFERENTIAL TREATMENT, FLATTERY, BACKSCRATCHING and HERO WORSHIP usually heaped on actual Corner Office occupants.

Which approach was better? For hospital customers, **McAuto's** was better, but for stockholders, **SMS**'. Check out the next slides:

Who Won the "Shared" Battle?

These two shared system giants duke'd it out for decades; which one won? I worked at both and here's my precis:

McAuto

- Superior technology:
  - HPC, HFC on-line edits…
- Superior installs
  - Client Service veterans…
- Deeper pockets
  - Giant, high-tech parent…
- Larger client base

  600+ on HFC, 1K on MR II

  - *Acquired & sunset…*

SMS

- Superior ***Sales***:
  - 3 VPs of S & M in 69!
  - IBM culture
  - Big Commi$$ion$
- Superior ***Marketing***
  - Larger ho$pital$
  - UNIFILE & ACTIon
  - IPO, stock…

Invision & MS4 live on!
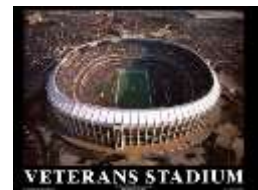
McAuto's Ironic Fate

- So it all started with Walt Huff, CFO at OSF, who joined McAuto's HSD and led the early development of several groundbreaking mini-computer systems too like HDC (Hospital Data Control).

- So only fitting that after many twists and turns (to be detailed later), where would McAuto's HSD eventually end up? You guessed it: with Walt Huff's HBOC (!), which acquired McAuto's HSD circa 1995 from Amex/SAI. HBOC ran HFC out of a data center in Charlotte for a few more years before its eventual sunset…

"H.I.S.-tory" by Vince Ciotti

Episode # 13:

The "Other" Shared Systems

Besides SMS and McAuto…

"Also Rans" - The *Other* Shared Systems

- It wasn't just SMS and McAuto selling the shared systems that automated *most* US hospitals in the 70s. Some of the major "minor" shared systems included:
  - **GE's Medinet** – a huge player nationwide through GE's name
  - **MDS** – Bob Pagnotta's Medical Data Systems in NJ, sold to:
  - **Tymshare** – from California, that made a run at SMS & McAuto
  - **ISD** – the Information Services Division of American Hospital Supply, which was itself comprised of:
    - *Four* regional shared systems AHS acquired around the country…
- Just as Bob Pagnotta built *two* shared systems, so did John DePierro, also of NJ, & one is still running!
  - Gamut – running SHAS in NYC in the late 60s
  - MDT – Medical Data Technology, *sharing* TDS

70s Shared Giant: **General Electric**

- ## GE's "Medinet"
  - Formed in 1966, right after Medicare
    - (just like IBM's SHAS and OSF's HFC!)
  - Grew to over 100 employees, including:
    - Notables like Jim Pesce, VP for Paragon
  - Hardware:
    - Processing on GE's "485" mainframe
   - I/O via "KSR33" teletype terminals
- ## Products:
  - Announced with great fanfare at '67 AHA convention:
    - Full *clinical* suite: Laboratory, RX, CPOE, Medical Records…
  - Only financials were delivered, however; **RIP ≈1968**

Bob Pagnotta's <u>Medical Data Systems</u>

- One of the most famous names and faces in the HIS industry, Bob formed MDS in 1967 in Elmwood Park, NJ

- Unlike **SMS**' $5M in start-up capital, MDS started on a shoe-string, with just a bunch of hard-working guys like:
  - Clark Hower, Steve Callas, Phil Nowicki, Bob Mathes…

- Unlike most others, they ran on **Burroughs** mainframes, that offered better price/performance than IBM's 360s.

- Early NJ clients steered their product development:
  - <u>Hackensack</u> – had a large, complex ED, causing MDS to concentrate on *outpatient* Reg. & Billing
  - <u>Monmouth</u> – hired them to build a Payroll system, starting their *general financials* suite
  - <u>Burlington County</u> – where Bob started *clinical* systems for CEO Dave Hunter & CFO Paul Long.
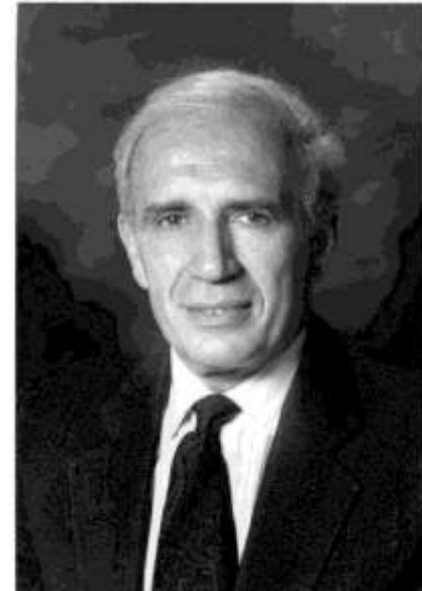
Tymshare

- Building clinicals proved to be so costly, Bob sold MDS in 1976 to Tymshare, a time-sharing giant from Cupertino.

- Formed in 1964, Tymshare was a major player in *generic* industries, just like McAuto's GSD, its prime competitor.
  - Tymshare had the R&D capital to complete MDS' clinicals.

- Heading up Tymshare, Bob grew it rapidly, acquiring:
  - Wisconsin Blue Cross, with about 30 hospitals on "MediStat"
  - Space Age Computers – in Washington, DC, an FM specialist
  - Medical Information (MI) – in Dallas, TX, giving a *national* base

- Clinical systems proved to take too much time and money, and in 1982, Tymshare and its 150 hospital clients were sold to **McAuto** in St. Louis.

AHS' ISD

- **American Hospital Supply** was battling with Baxter-Travenol in the early 70s for hospital supply dominance, and created its Information Service Division (ISD) from:
  - Hospital Computer Center – which ran 2 separate data centers
    - Michigan – run by HIS gurus Gerry Mathis & Marv Cadwell
    - Georgia – run by Bill Brehm, of IFAS fame (w/ Irwin Gerber)
  - CB2 – Central Bank Computer Bureau - from San Francisco, CA
  - NJHA – which ran a shared system in NJ, battling SMS and MDS
- ISD fought the good fight right up to the mid-70s, when:

  - SMS cashed in some of its stock, which had done superbly well after its IPO, to acquire ISD and its personnel talent, who went on to make SMS even bigger and better, eg, Marv Cadwell eventually became SMS' CEO in the 90s, after Harvey retired…

John DePierro's *two NY/NJ* Shared Systems

- Like Bob Pagnotta, John DePierro is a famous figure in NY/NJ HIS circles, and also start *two s*hared systems:
  - **Gamut** – formed in 1968 and running IBM's SHAS out of a data center at 9 West 57th Street, early clients included:
    - Medical Arts Center in NYC & Caledonian Hospital in Brooklyn
    - Pascack Valley & St. Barnabas Hospitals across the Hudson in NJ

  Competing with SMS on the same SHAS product proved too hard, so John's next company was a truly innovative strategy:

  - **Medical Data Technology** – John negotiated a license from TDS to offer its MIS clinical system on a *shared* basis to hospitals out of a data center in Mountain Lakes, NJ. MDT prospered for many years, and was eventually acquired by SMS' Harvey Wilson when he formed Eclipsys. Several hospitals still run TDS from the Mountain Lakes data center to this very day!

End of an Era

- Shared systems dominated the US hospital market through the 70s, as illustrated on this ancient chart from Sheldon Dorenfest & Associates, *the* HIS industry gurus (now HIMSS Analytics).

- What eclipsed shared systems? Starting in the early 1970s, hardware manufacturers were developing a new computer that solved the "main" problems with mainframes: costs and programming staff.

- What was it? Stay tuned for the next epoch in HIS-tory….

NUMBER OF SHARED AND IN-HOUSE COMPUTER USERS THROUGH 1985

IN-HOUSE

SHARED

3,600 — 3,400 — 3,200 — 3,000 — 2,800 — 2,600 — 2,400 — 2,200 — 2,000 — 1,800 — 1,600 — 1,400 —

1979 1980 1981 1982 1983 1984 1985
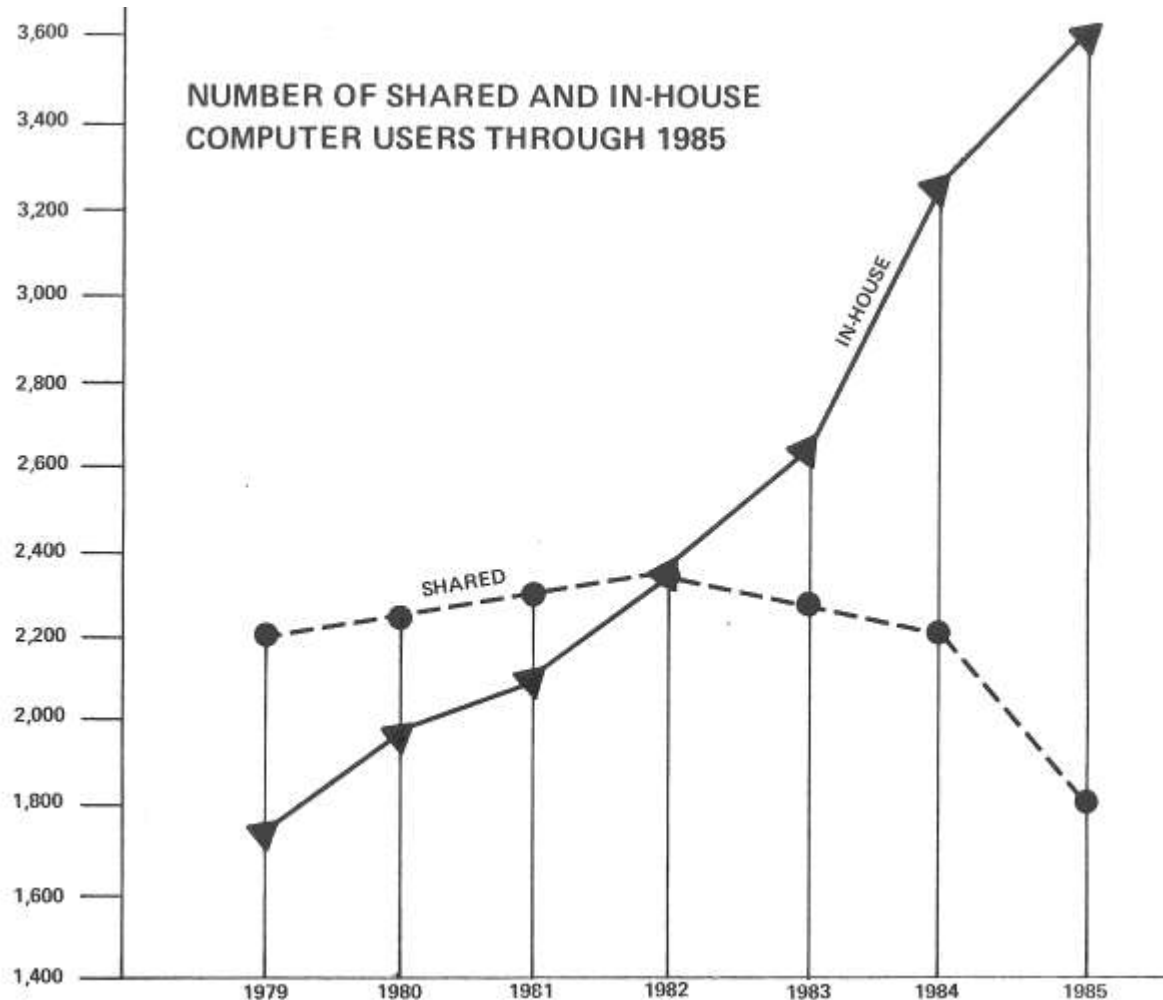
"H.I.S.-tory" by Vince Ciotti

Episode # 13A:

The "Other" Shared Systems

Continued…

The *Other* Shared Systems, con't

- If you've been following this HIS-tory series on HIStalk, you should remember the 3 epochs covered to date:
  - <u>Pre-cursors</u> – my sick pun for 1050's cardboard posting cards and other precursors to the computer age in hospitals.
  - <u>Mainframes</u> – IBM and the BUNCH Group in the 1960s
  - <u>Shared Systems</u> – led by **SMS** and **McAuto** in the 1970s
- This week was to be the first installment of the 1980s:
  - <u>Minicomputers</u> – that solved the problems of mainframes…
- But, blame Mr. HIStalk who had the nerve to publish my email address, enlisting dozens of emails and two fascinating phone calls that led to this week's step ***back*** into shared systems, thanks to Mike Kaufman and Jim Pesce,
- Who shared (sic) these 2 amazing stories…

Medinet, redux

- **<u>Jim Pesce</u>**

  - Who's he, and what's he got to do with the price of eggs? Well, read on:

  - Back in D.P. Neanderthal days (circa 1964), Jim got his first job at an amazing start-up firm in Boston with a bunch of MIT and Harvard graduates (of which Jim was distinctly *not* a member!)

- The project was headed up by Ed Yourdan, 22-year-old MIT PhD, and father of "structured programming."

- Jim landed a job as the night shift supervisor at the data center for Yourdan's project called "Medinet."

"Massive" Shared Mainframes

- Jim's data center housed a monstrous mainframe of the time: an **IBM** Model 7090, later upgraded to a 7094,

- With a then-staggering 128*K* (not meg or gig) memory!

- One of Jim's night-shift employees was a youngster named **Larry Polimeno** (sound familiar **Meditech-ies**?)

- Larry was passed over for a supervisor job, and quit to join some other flaky start-up off of Route 128... dumb!

- **Medinet** was funded initially by Bolt, Beranek and Newman (BBN), a consulting brain-trust famous for:
  - ARPANET – a military redundant communication system, forefather to the "www" Internet!
  - Acoustics – they were later hired by the feds to analyze sound recordings of JFK's assassination...

Larry Polimeno, MEDITECH's first employee is hired at the end of the first month, later he becomes Vice Chairman.

Early HIE/RHIO Vision!?

- **Medinet's** amazing vision according to Jim was to build a network of IBM 7090s in major cities (Boston, NY, LA, etc.), connected to Honeywell computers in individual hospitals, linking patient information – sound familiar?

- Even worked on a program to allow MDs to write notes, but slow KSR teletype terminals killed response times…

- According to Jim, **Medinet** had a Hippie culture back in the swinging 60s, until one day a bunch of suits came in.

- **GE** –acquired Medinet, and, in typical big-business fashion, they shifted the emphasis from clinicals (with few sales) to financial systems, a *huge* market SMS and McAuto dominated.

GE's Medinet

- Just as HFC was developed at OSF and SHAS pioneered by Minnesota BC/BS, **GE** sought a hospital partner:

    - Ellis Hospital – in Schenectady, NY, was picked to help design Medinet's financial modules: Census, Billing, AR, etc.

- Retired **GE** executives led the project at vastly reduced salaries, but with deep financial system experience.

- After selling about 50 hospitals, **GE** folded its tents circa 1968, and sold **Medinet** to HCA in Nashville, Tenn., which, after many updates and releases, *it still runs it at 150 HCA hospitals today!*

    - Of course, the **Medinet** project has nothing to do with the **GE** "Centricity" systems being sold today, which will take a whole chapter later on for where they were acquired from…

Jim's Career Since Medinet

- Jim left Medinet after it was sold to HCA, and began a career that is easily remembered by we acronym geeks:
  - **M**cAuto – which Jim joined in the mid 70s, and headed up Client Services in their Florham Park office in NJ for 10 years.
  - **M**icro Healthsystems – which Jim joined in the mid-80s as president, and led their pioneering bed-side systems called:
  - **M**edTake – which he and Chairman Sal Caravetta sold to
  - **M**cKesson – where Jim was given the task of shutting down Paragon circa 2000, after its many years of delays and bugs.

- After studying the system, he appealed to McKesson to give it one more try, and the rest is HIS-tory – Paragon is one of the hottest selling HIS system in the small to mid-size hospital market today. (Just surprised he didn't rename it **M**aragon!)

The Kaufmans, Père et Fils

- The second shared system redux story is courtesy of **Mike Kaufman**, whose father, S. David Kaufman, is famous for his acronym shared system, SDK, which may be *the* original shared system ever!! According to Mike:
  - Sam – was CFO at several large medical centers in the *1950s*:
    - Beth Israel in Boston, Mass, and Mt. Sinai in NY, NY.
  - Circa 1955, Sam formed his own CPA firm, and applied for a federal grant to build a system to share data among hospitals.

    - **April 1, 1961** – Sam formed **SDK** as a shared system, beating SHAS and HFC *by over 8 years!* Sam took 8 of his accounting clients over to SDK's financial system.

      Built by a CPA, **SDK** offered a *very* functional suite of financial apps, and the client base grew rapidly, processed through a GE data center in Lynn, Mass

End of SDK, Start of "MBK"

- **SDK** granted a sub-license to **Astradyne** that sales & marketing rights in the NY/NJ/PA area, although processing was done by SDK.

- In the mid-70s, Sam passed the baton to his son, who read the tea leaves about mini-computers, that were entering the market.

- Michael B. Kaufman re-wrote his Dad's shared code in then-state-of-the-art **Mumps**, which was re-named Intersystem's "**M**," eventually Cache, which is still the underpinnings of many HIS systems today.

- Mike ran the new **SDK** on a DEC mini, and sold it to 50+ hospitals, even teaming with **Cerner** in the 90s (before they wrote ProFit).

- In 1997, Mike got an offer he couldn't refuse from Harvey Wilson, who had left **SMS** to form a "NewCo," eventually named **Eclipsys**.

- The DEC mini **SDK** became part of Sunrise, and still runs in over a hundred hospitals to this very day (now owned by **Allscripts**).

"H.I.S.-tory"

by Vince Ciotti

14: The 3rd Epoch in HIS-tory:

The Minicomputer Revolution

3rd epoch in HIS-tory: Minis!

- If you've been following this series to date, you should be familiar with the first 2 HIS epochs and their strengths & weaknesses:
  - <u>1960 Mainframes</u> – vast improvement over ledger cards, but huge **cost** both to the hardware manufacturer and for **inhouse programmers**.
  - <u>1970s Shared Systems</u> – affordable for medium & small hospitals, but mainly financials, no **clinicals**.

- In the '80s, **turnkey minicomputer systems** solved all 3 problems:
  - <u>Cost</u>– hardware manufacturers like DEC & DG introduced minis that were a fraction of the size and cost of mainframes.
  - <u>Clinicals</u> – pioneering vendors like McAuto (yes, the *shared* giant!) and HBO (no "C" yet!) developed order entry & results reporting software that was pre-packaged – just "turn the key!"

Minicomputer *Hardware* Roots

- The development of minicomputers themselves actually started way back in the late 50s, paralleling the introduction of mainframes; one of the pioneers was:

  - **DEC** (Digital Equipment Corporation) - formed in *1957* by Ken Olsen and Harlan Anderson, both ex-MIT gurus (about a decade before Neal Pappalardo's tenure). They set up shop in an old civil-war era textile mill in Maynard, Mass. (shades of Ross & Royal Roads in PA?), and started producing computers both smaller and cheaper than **IBM** & the BUNCH Group's mainframes.

DEC the Halls with PDPs…

- The first prominent line of **DEC** minicomputers were called "Programmable Data Processors," or "PDP" in geek.

- In 1959, **DEC** introduced the PDP-1, pictured at right.

- Cute piece of DP trivia: remember how **IBM's** 360s used a 1052 terminal as a console, which was little more than an **IBM** Selectric typewriter on steroids?

- Well, check out the console for the PDP1: an electric typewriter, also modified to serve as an I/O console!

Incestuous Interrelationships

The first PDP1 was sold to **BBN** (Bolt Bernaek & Newman) of Boston, an amazing consulting firm with ties to many early DP initiatives such as ARPANET ("www" pre-cursor).

- **BBN** used the PDP1 in the "Hospital Computer Project," funded by the NIH and AHA in 1962, staffed by notables such as Homer Warner (of later IHC fame). Ironically, **BBN** used the PDP to pioneer the concept of time-sharing, paving the way for SHAS!
- **Massachusetts General Hospital** - was the pilot site for this embryonic on-line HIS clinical system, which used every bit of the PDP-1's 16K (that's *K*, not Meg, or Gig!) of 18-bit word memory! Slow response times killed it, but amazing that an early HIS was the *first* project for the *first* minicomputer!

PDP Evolution

- After selling ≈50 PDP-1s by 1969, **DEC** launched a wave of successors that brought increasing power at a price far below **IBM** & the BUNCH's boxes:
  - 24-bit PDP-2, and a 36-bit PDP-3 were developed next,
  - Followed by the PDP-4 costing only $65,000 (54 sold)
  - And the PDP-9 at only $19,000, of which 445 were sold
- Best-selling was the PDP-8 (on right) sold to over 1400 customers. Compare its closet-size to a mainframe's room-filling girth! Now, small and medium hospitals could afford both the capital cost, and find floor space to fit these boxes in small rooms or closets, while mainframes usually went in the basement…

Other Mini-Makers

- Meanwhile, many more mini makers multiplied (sorry…)

  - **Data General** – formed in 1968 by 2 ex-DEC-ers, introducing the 16-bit "Nova" line of minis (pictured on right – check out the label!)

- **Hewlett-Packard** – One of the few mini-makers to survive to this day, HP entered the mini-market in the 1960s with its 2100 series, pictured at left.
  - The 2116 had up to16K of 16-bit word memory.
- The HP 3000 really took hold in HIS in 1973
  - Amazingly, HP 3000s models (final version was the "e3000") were made right up to 2010!
  - The 3000 cracked the 64-bit word barrier, something DEC didn't do until its "Alpha" line.

"Big Blue" offered Mini-Blues

- **IBM** was never one to be left behind in the early R&D wars
  - Mini-mania seemed to sweep Armonk as **IBM** released box after box to keep up with and out-due its mini rivals in this maxi-market:

- 1969   System/3
- 1975   System/32
- 1976   Series/1
- 1977   System/34
- 1978   System/38

- 1978   8100
- 1983   System/36
- 1985   System/88
- 1988   AS/400
- 1990   RS/6000
- 2000s   p & i-Series

HIS Mini-Monster: Four Phase

- Another Cupertino firm established in 1967 became one of the biggest names in the HIS mini market:

- **Four Phase** – the name coming from a multi-phase clock in one of their earlier processors, made huge waves at SMS, McAuto and an upstart called HBO.

- Pictured at right is the System IV/70
  - Handled up to 32 CRTs on-line
  - "Front-ending" IBM 360/370s
  - Memory from 12K to 24K bytes
  - Peripherals included:
    - IBM Selectric printer (*again!*)
    - Line printers, up to 200 LPM
    - 2.5 Meg Disk Drive

Minicomputer Roster

- It's hard to compile (pun intended!) a list of all of the minis that came pouring into the HIS market in the 1970s, but here's a few more worth noting:

  - Wang
  - Qantel
  - Honeywell
  - Xerox
  - Varian
  - Univac
  - TI
  - Perkin-Elmer

  - Hitachi
  - MicroData
  - ModComp
  - NCR
  - GEC
  - Harris
  - Burroughs
  - Prime

Platform Profusion

- One of the few negatives to the mini hardware that flooded the market in the 70s was the variety of their *proprietary* data bases, operating systems and program languages.

- Hospitals who bought a mini system suddenly found their DP shops pigeon-holed into being a "**DEC** shop" or "**DG** shop" or "**IBM** shop," with their techies speaking VMS or RPG or Unix…

- Even UNIX had as many variants as there were manufacturers in this mini tower of Babel.

- Which leads us to next week's topic: the "turnkey" *software* that made minis mighty!

"H.I.S.-tory"
by Vince Ciotti

Episode 15:

The Mini Revolution:

Software Pioneers

Turnkey Mini *Software*

- So for all this minicomputer hardware made in the 1960s, just where did the mini hospital *software* originate?

  - **McAuto**! – Yes, Virginia, the *shared* system giant built the first software that made minis mighty, and eventually led to **HBO!**

  - **HDC** – "Hospital Data Collection" was the name Mac gave to a project started in the early 70s to automate Order Entry & Results Reporting, making mainframe solutions affordable.

- Why automate such a mundane series of clerical tasks?

  Remember how Order Entry and Results Reporting enabled Mike Mulhall to cure the paper blizzard at Monmouth:

  - ✓ MDs scribbling orders on an "order sheet" in the chart
  - ✓ RNs "red-lining" each order as they transferred them to:
  - ✓ Multi-part paper requisitions or "zip sets" for each order
  - ✓ Imprinted with "Addressograph" plates (plastic ID cards), that contained (hopefully!) *that* patient's account number.

Manual Order Entry "System"

- Order requisition were "zip sets" with carbon copies (aka: "NCR" paper), to create:
  - ➤ An *original* for the chart,
  - ➤ Copy *hand carried* to the dept.,
  - ➤ B. O. copy or "charge ticket."

Results took an equally labyrinthine paper/clerical path *back* to the nurse station and (hopefully!) the correct patient's paper chart, where they were "shingled" for physician review (or lost/borrowed…)

McAuto's HDC Solution

- In the early 70s, just as **HFC** was taking off for patient accounting, Chuck Barlow's software engineers started programming a **DEC** PDP to automate orders/results.

- For rapid response times, they added a **Four Phase** mini as a "front-end" to handle communications among the many terminals on nurse stations and ancillaries "STAT!"

Dissent in McAuto's ranks

- A battle arose inside the HDC team:
  - Walt **H**uff, who had came from OSF with his HFC shared system team, including:
    - Bruce **B**arrington and Richard **O**wens,
  - Thought the Four Phase could do the job *alone*, without the cost & complexity of the **DEC** PDP mini. Mac's techies disagreed…

- So, Huff left in one, and formed his own company with Bruce and Dick back in Peoria, appropriately named: **HBO**
- Legend has it they set up a Four Phase in Walt's house, and began programming an Order Entry system named **MedPro**

Sales Tsunami

- **MedPro** met with amazing success in the community hospital market (under 400 beds), whose "normal" size hospitals could not afford the **millions** of a mainframe and associated programming staff, but would gladly pay **thousands** for a mini and its "turnkey" software,

- Especially if it offered the very order entry & results reporting applications that their shared financial system vendors couldn't deliver on slow telecom of the day…

- Ironically, Walt & company's intimate knowledge of HFC enabled them to write a superb interface to its shared financials, better even than Mac's own HDC!

  – After all, they had authored *both* systems…

MedPro Breakthrough$

- As sales and revenue rolled in, **HBO** grew exponentially, and expanded the early MedPro apps to include ancillary department systems, and even nursing documentation.

- But **HBO's** most telling breakthrough was in **pricing**:
  - Shared systems were priced on volumes, e.g., $.25 per AR account per month, and $1 per patient day for IP billing, reflecting the costs incurred at the shared data center…
    - So, TCO over time was *high*, but capital costs were *low*.
  - MedPro sold like turnkey systems did in other industries:
    - "X" thousand for the mini, "Y" for software license fees, and:
    - "Z" thousand for installation! Prior to this, we IDs and CSR reps were *free*, with only out-of-pocket travel costs passed on to hospitals.
    - Needless to say, every other vendor jumped on this bandwagon to where by today, HIS implementation fees often exceed license fees!

Wall-Street Breakthrough!

- By booking the entire sale (hardware, software and implementation) at once, **HBO** realized far more revenue in the year of a sale than the shared systems, who were then booking each year's revenue as they invoiced it...

  – (no need for Sarbanes-Oxley Laws then!)

• When **HBO** went public, it's stock soared as much as Med-Pro sales, and its high-flying shares provided capital for numerous acquisitions, leading eventually to the McKesson mega-vendor we know and love today.

  - more of HBO's full saga later…
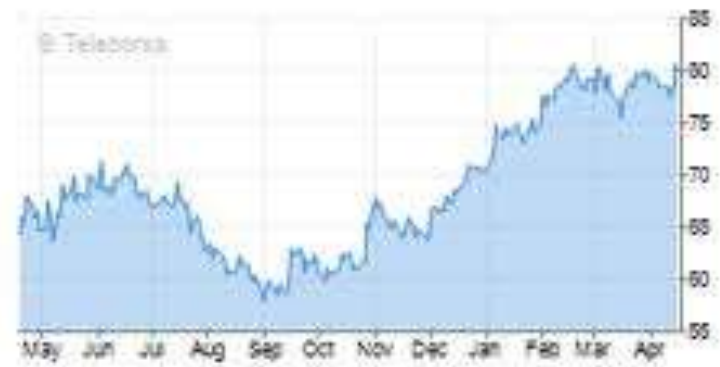
McKessonHBOC

Where the **ACTIon** is…

- **MedPro** even made inroads into *SMS*' SHAS client base, prompting Harvey Wilson to strike a deal:
  - **SMS**' techies had been working on a DEC-based OE/RR system something like HDC, but with no Four Phase.
  - Programming took longer than expected, and, tired of losing sales, Harvey bought rights to **MedPr**o for **SMS**

- Betsy Palonis in my Education Department got the job to come up with a name, and picked "**ACT I**"
  - Act II was to be Lab, Act III = RX, etc.
- After printing countless buttons and signs, the attorneys found that name taken, so she creatively came up with "**ACTI**on," to save the buttons!
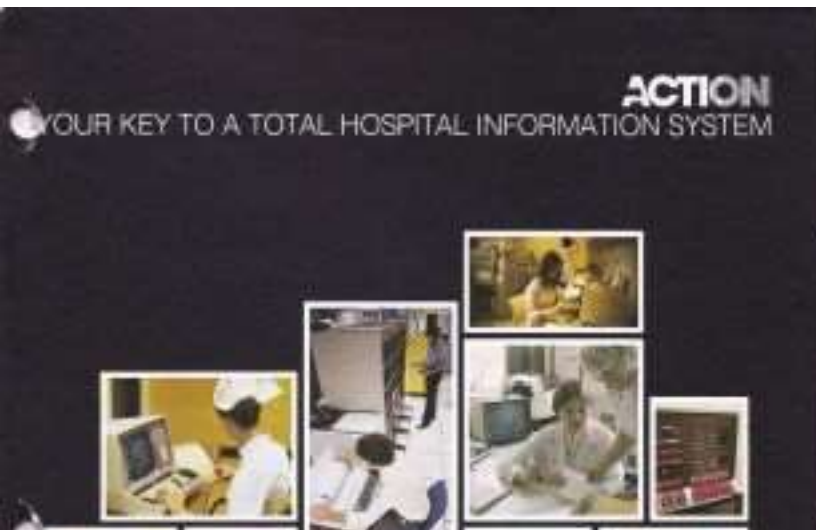
What Did ACTIon stand for?

- **All Communication Transmitted Immediately**
  - Of course, it didn't take the many wise-guys in King of Prussia to dream up a meaning for the last two letters:
    - **Or Never!**
- Actually, SMS also used Four Phase minis as a hot terminal device to finally replace keypunch cards & 1050 terminals:

- The death of keypunch cards started with IBM's 2770 line of "high-speed" terminals (such terms are relative…). Notice at right, no more IBM Selectric!

- I can still remember looking at the first 2770 green phosphor CRTs and wondering "Where's the data?"
  - Was tricky to correct a TCE: how do you find the 43rd card in batch number 106 on a CRT??

ACTIon Evolution

- Cranking up its superb sales team, SMS began to sell ACTIon aggressively, and it morphed into:

  - <u>ACTIon 200, 400 and 600</u>, MedPro on Four Phase 4/40s and 4/70s, offering mainly ADT, OE and RR applications.

  - <u>ACTION 1100 and 1500</u>, the DEC-based OE/RR system the programmers finally delivered, with ancillaries too.

- Soon, turnkey minis were selling like proverbial:

- Just as shared systems swept the **financial** system market in the late 60s and early 70s, turnkey minis systems in the late 70s introduced **clinical** systems to countless small and mid-sized US hospitals.

Minis go Maxi!

- Many other entrepreneurs besides **Chuck**, **Walt** & **Harvey** saw the money to be made in minis:
  - Not only "add-on" clinicals to shared financial systems, whether order entry systems or standalone ancillaries,
  - But entire "Hospital Information Systems" encompassing *both* financial and clinical apps on a single mini platform

- The genie was out of the proverbial bottle!

- In the next HIS-tory installment, we'll explore some of the many 70s & 80s firms who made minis rival mainframes in functionality, and beat them in price/performance…

Dynamic Control
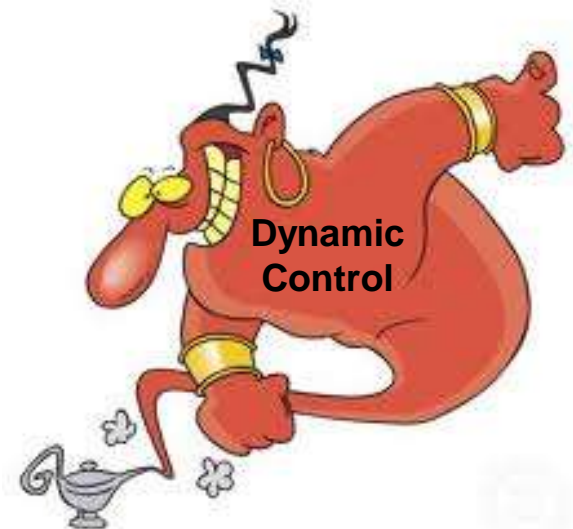
"H.I.S.-tory"
by Vince Ciotti

Episode 16:

Turnkey Mini Pioneers
Yes, Virginia, *that* early!

Earliest Mini Vendors

- If you've been following our HIS-tory, you'll remember how shared systems dated from the swinging 60s:
  - **IBM's "SHAS" –** written in the mid-60's to share 360 mainframes,
  - **McAuto's HFC** – also from the mid-60s, right after Medicare, and
  - **SDK** – the oldest of them all, started by S. D. Kaufman in 1959.
- Amazingly, the earliest turnkey mini vendors date from the 1960s as well, only they took many, *many* years to mature and grow anywhere as big as SMS or McAuto:
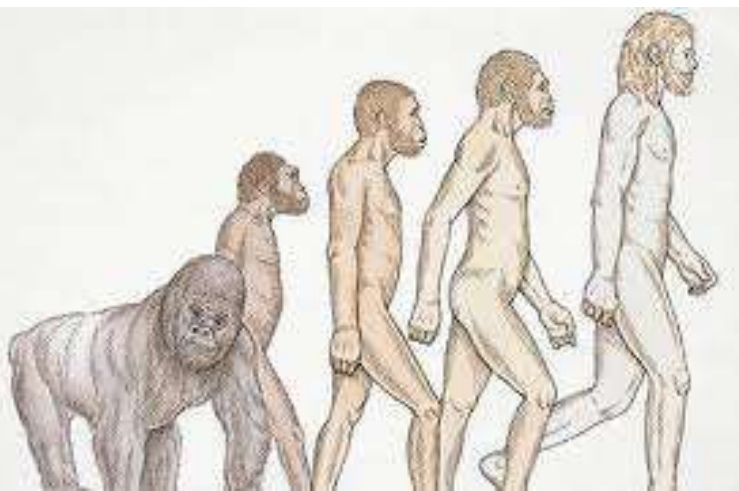
- There were basically two flavors:
  - Departmental systems, vendors with standalone clinicals that interfaced to shared financials like HBO's Med-Pro.
  - "Total HIS" vendors, offering both clinical and financial apps that completely replaced shared systems.

Early "Departmental" Mini Vendor

- We'll start with one of the earliest departmental system vendors, that grew over time into a total HIS system.

- To appreciate its roots, we have to go back to one of the earliest mini hardware/software development projects:

  – **Massachusetts General Hospital**, where Octo Barnett's Lab of Computer Science (LCS) used the first DEC PDP minicomputers to develop one of the very first time-sharing systems (ironic?)

    - LCS' software was called "MUMPS," short for Massachusetts General Hospital Utility Multi-Programming System.

- Among Octo's hard-working team were:

  - **Dr. Robert Greenes** – who went on to form American Health Systems, and

  - **Neil Pappalardo** – a long-haired (who wasn't in the 60s?) chain-smoking (ditto) project engineer on the right, who went on to form…
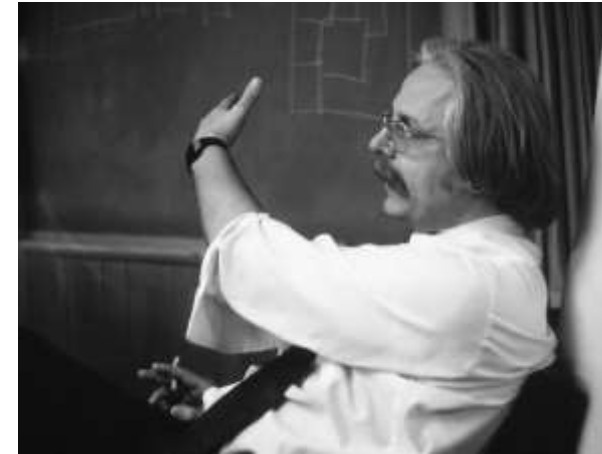
Medical Information Technology

- Odd name: was Neil thinking of his alma mater - **MIT**?

- Anyway, the firm's nickname became not "**MIT**" but "**Meditech**," and it's current mega-size makes it easy to forget its very humble roots as a *departmental* system:

  – At first, **Meditech** was a software programming shop, writing MUMPS code to automate phone directories, Sheraton hotels, and even the NYC prison system! First hospital client was:

Pictured above, from left to right: Stephen J. Guimond, Treasurer, Cape Cod Hospital; John E. Kilroy, Director of Information Systems, Cape Cod Hospital; and William F. O'Toole, M.D., Cape Cod Hospital. O'Toole was responsible for the initial involvement with MEDITECH 20 years ago. At far left is one of the many color terminals supplied by MEDITECH.

- **Cape Cod Hospital** – whose daring Pathologist chose fledgling Meditech to write a Lab system running via a teletype machine over a dial-up phone line via an acoustic coupler, time-sharing on a DEC PDP-15 running at the Meditech facility in nearby Cambridge, Mass.

(Cape Cod stayed with Meditech 'til 2010…)

Small World!

- If you're a regular reader of HIStalk, you've seen a series of *excellent* articles on HIS legal matters by an attorney named Bill O'Toole of the O'Toole Law Group (781/934-7400) in Duxbury, Massachusetts.

- So what's this got to do with price of eggs in Mass? Well, guess who's *father* was William F. O'Toole, Pathologist at the very Cape Cod Hospital that was Meditech's first hospital client! Notice the family resemblance?

- After over 40 years with Meditech, Cape Cod finally switched to Siemens Soarian recently. Wonder if they are finding similar "teething" problems to another relatively new system?

- I bet Junior negotiated them a good deal!

Meditech Evolution

- **Cape Cod's** saga outlines much of Meditech's HIS-tory:
  - <u>1971</u> = CCH converted to Meditech's "MIIS," their proprietary variant of MUMPS, and added four Infoton "Vistar" CRTs and two slaved character printers (UNIVAC DCT-500). It took a full minute to print a single patient summary report (but far shorter than a clerk could ever {mis}type one!)
  - <u>1979</u> = CCH converted to another generation of the LIS and Meditech's new MIIS (Standard) operating system which ran on a DG Eclipse C330 mini.
  - <u>1984</u> = CCH replaced their shared financial system with Meditech's complete MAGIC "HCIS" system running on five DG MV6000 minicomputers, with 300 devices and five gigabytes of storage. Plans were to move to DG's new RISC machines in the future (MV10000 series).

- I first encountered **Meditech** in the early '80s when a NYC mainframe vendor I was working with partnered with Meditech to propose *their* clinicals (by then, an LIS, RX, RIS, and Orders & Results) with *our* financials. Luckily, the hospital didn't buy this "odd couple," but I noticed how quickly Meditech added their own financials a few years later…

Other "Medi-techies"

- Like the troika of Jim, Harvey & Clyde at SMS, and Walt, Bruce, & David at HBO, there were 3 notables who made Meditech magic:
  - **Neil Pappalardo** – still deserves the most credit, personally guiding their technical evolution through MIIS, $T, NPR, C/S and now Focus/Release 6.
  - **Larry Polimeno** – one of the first employees (remember Jim Pesce's GE Medinet story?), who eventually rose to become Vice-Chairman.
  - **Howard Messing** - who has risen today to the position of president and chief executive officer.
- Other early heroes/heroines include:
  - Ed Pisinski – early Sales VP, had the sense to recruit his successor, Stu Lefthes, from McAuto!
  - Barbara Manzolillo – an early hire who rose through the ranks to become CFO.
  - Roberta Grigg – senior VP of MEDITECH's international ops before retiring in 2001.
  - John Dolan – retired Northeast VP, who put up with some of the nastiest contract negotiations Bob Pagnotta & I ever put anyone through!

(L-R) Neil Pappalardo (Chairman), Larry Polimeno (Vice Chairman), Howard Messing (President & CEO

More Meditech Mausoleum Myths

- Meditech started several trends copied by later vendors:
  - <u>Corporate Office *Only*</u> – *everyone* is based in Boston, Mass. – there are no regional offices for sales or implementation.
    - Well, actually, in the early '70s there were 2 field offices in the West and one in the Midwest – but they were closed as a cost-cutting measure after a bad year. Imagine the (your?) air bills to California!
    - (a model since followed by such notable vendors as CPSI and Epic…)
  - <u>Software *Only*</u> – buy your hardware from someone else: JJ Wild, Perot, Dell…
    - In the early days, MIIS required modifications to the firmware in early DEC and DG minis' CRTs, so gear *had* to be configured in Westwood.
      - (anyone know the origins of JJ Wild's early hardware monopoly? Please email me…)
    - Imagine how large Meditech's (and Epic's) annual revenue would be *with* hardware!

Meditech's Amazing Growth

- The graph below illustrates **Meditech's** incredible success since:
  - In 1981, 70-odd (sic) clients convened at their first user group meeting...
    - Much smaller than SMS & McAuto, with over 1,000 shared system clients then.
  - By 2011, there are about ***2,000*** hospitals worldwide using Meditech:
    - Several hundred international, hundreds still using clinicals only (eg: HCA), and well over a thousand US using one of their three flavors of full HIS: Magic, "Client Server" or Release 6.
  - Their MUSE user group has grown so big it rivals HIMSS in size and hype...

Meditech's Annual Revenue ($s in 000,000)
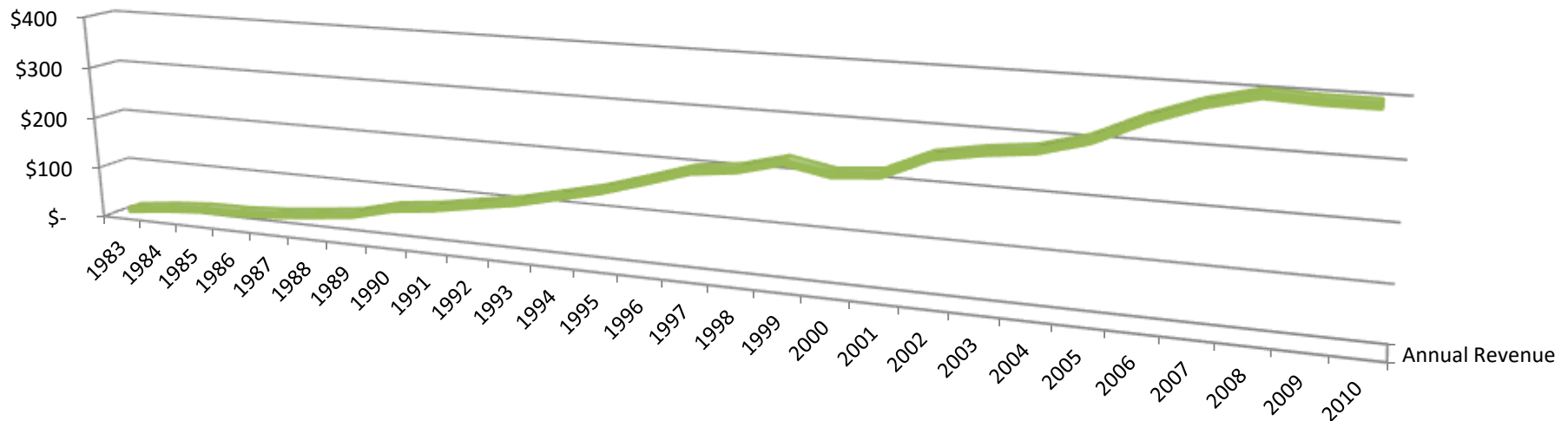
"H.I.S.-tory"
by Vince Ciotti

17. Next Mini Pioneer

- **From the same amazing year that brought us SMS and Meditech…**
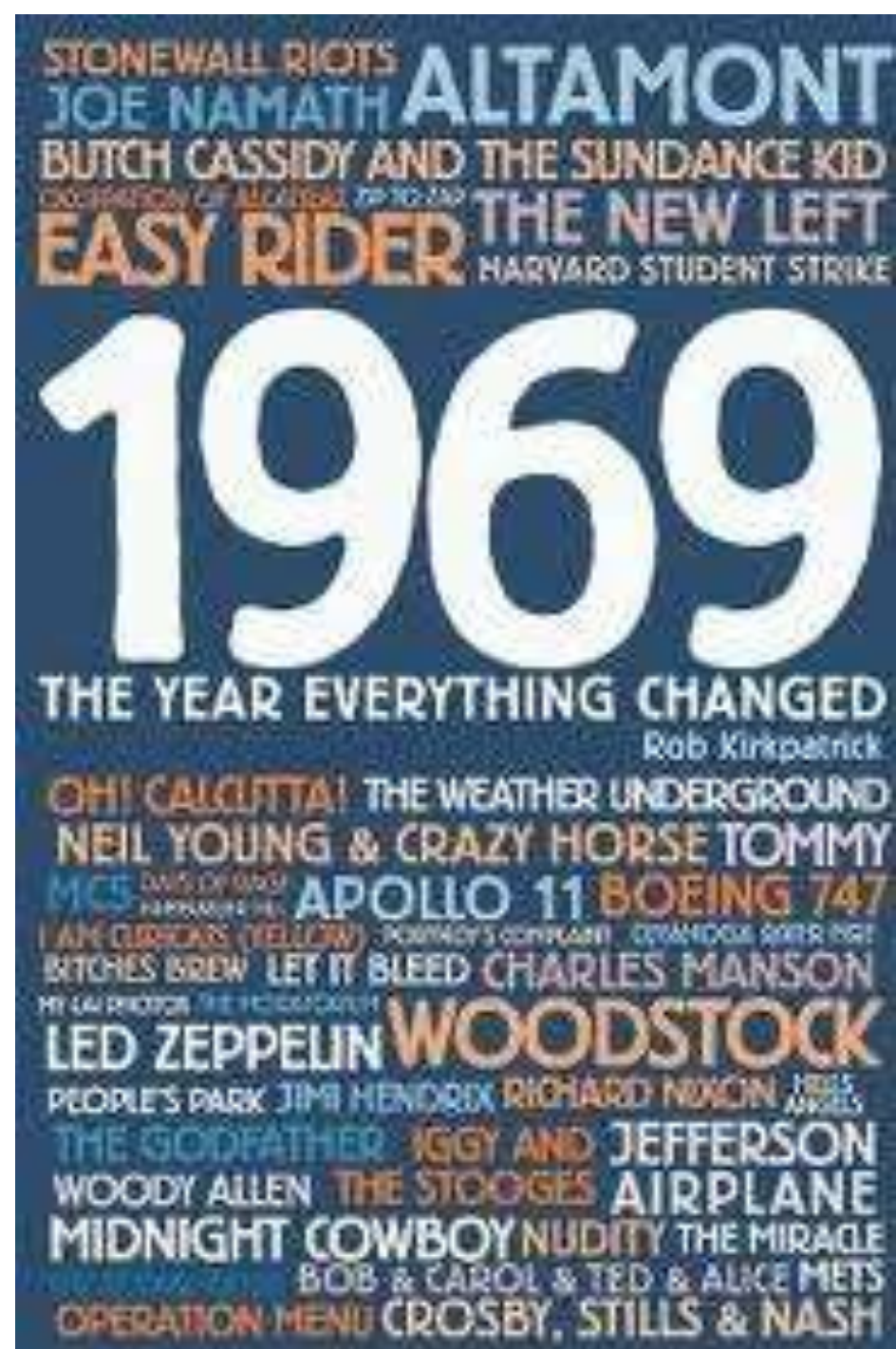
But first…

- Some feedback from last week's HIS-tory installment, which featured **Meditech**. Bill O'Toole, founder of O'Toole Law Group of Duxbury, MA, and a regular contributor to HIStalk, sent this email:

  - *Vince, loved the newest installment. I'm sure you don't remember this, but the pathologist from Cape Cod Hospital is my father. I recall vividly my Dad being upset with Meditech one night. We went into his lab late that night to try and fix something or other. Well, long story short, my father was not pleased with their response. He communicated with Meditech by typing into a line connected to a printer in a closet at Meditech, loaded with a box of the old green-bar paper. So the good doctor types in 22 divided by 7* (VC: piece of cake, er, pi…) *and sent it to the Meditech printer. The next day he got a call from Meditech howling that he owed them a full box of paper!!*

- If you have more to add (or subtract!) from these HIS-tory episodes, please email me at:
  vciotti@hispros.com

Early "Total HIS" Mini Vendor

- As we saw last week, **Meditech** started as an LIS niche player in 1969, grew to add a full suite of clinicals (Orders, Results, RX, RIS…) in the 70s, added financials in the 80s.

- Our second mini pioneer started out with a much bigger vision: to develop a total HIS *based on hospital input.*

- The man behind this start-up is easily one of the best known and most respected mavens in the HIS industry:

  - **Sheldon I. Dorenfest**, of "SIDA" fame, which was also one of the first HIS consulting firms and source of HIMSS Analytics.

  - His contributions to the industry could take a full HIS-tory installment in itself, so we'll just cover how he formed one of the earliest minicomputer vendors whose successor still runs in scores of US hospitals 40 years later!

Compucare

- Great name: amalgam of "Computer" and "Care!" What was different about Compucare versus other vendors?

- Back in 1969, Sheldon started Compucare originally as a *shared system*, just like **SMS**, **McAuto**, and scores of Blue Cross and state hospital associations were doing…

  - To grow Compucare quickly in the highly competitive market of shared systems, he first explored the possibility of buying another fledgling shared system called EDS (Executive Data Systems) based in Cedar Rapids, Iowa.

- Presaging his later and most famous business success as a vendor consultant, he gave EDS so much advice on how to improve their struggling shared system, that they improved it enough to *not* sell it to Shelly, but rather continued on for many more years!
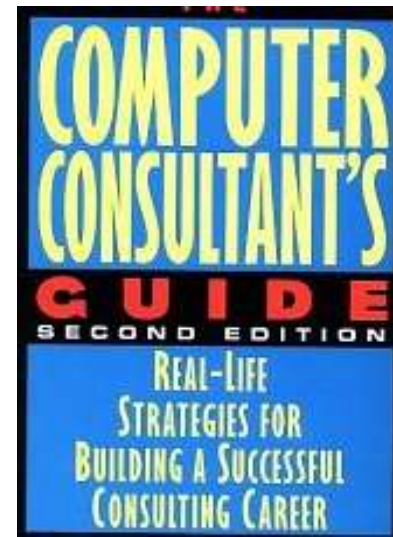
Plan B

- So now what to do to make **Compucare** a success?

- Sheldon next had a vision that reflects his roots as both an MBA, CPA, and Assistant to the President of the Hospital Division of Abbott Laboratories :

  - Back in the early days of HIS, many hospitals attempted to "roll their own" through inhouse, self-development, initially based on IBM and "Bunch Group" mainframes, but spreading to minicomputers too as they grew in popularity in the late 60s.

    - These early homegrown systems in the 60s were taking far longer than hospital CFOs (who were responsible for "Data Processing" back then) had either the patience or budget for. DP Managers & their stressed staffs tried their hardest, but hospital apps just took a lot of time and money to program…

    - The solution? As easy as clicking for the next slide:

Facilities Management! (FM)

- A concept whose proverbial time has come in the '70s:
  - *Professionals* would take over DP, in one of two ways:
    - Providing a DP Manger who reported to the outside firm, and was responsible for managing the staff, time and budget of the project.
    - Taking over the *entire* DP staff, who all became employees of the outside firm, and had to deliver to keep receiving their paychecks…
  - Best of all, by forming a firm specializing in FM in hospitals, Sheldon was able to share code developed at one site with that developed at another site, portioning out the work.
    - Hospital "A" worked on ADT, Hospital "B" did Billing, "C" did AR, etc.
  - Sort of a "shared system" for software design…
- For hospital execs, it was the ideal panacea:
  - Outside *professionals* managed the daunting work of DP, so the hospital CFOs "only" had to worry about minor details like patient care and financial survival in this challenging post-Medicare/Medicaid world…

(Aside)

- (Pathetic how hospitals back then gave up on running DP/IT themselves, and paid FM firms to do it for them.

- We moderns know that FM would *never* work today:
  - Such firms merely add their profit margin to current salaries
  - They shuffle their people among clients to keep them happy
  - Their contracts have few if any penalties for poor service
  - Their employees are not as loyal to your hospital & mission
  - DP/IT today *is* a hospital "core competency:"
    - EHRs & CPOE *are* patient care!)

- **If only we could go back in time and warn those pioneers that no hospital would fall for paying outsiders to do what they should manage themselves…**

- **They should have *outsourced* their planning!**

WHY CAN'T WE OUTSOURCE CONGRESS?

Sales Success, Delivery Challenges…

- For the first few years, sales came rolling in, as CFO after CFO saw this FM approach as the answer to prayers:
  - Far better than telling the Board they were giving up, selling their hardware box, laying off the staff, and going shared.
  - And with a convenient target to blame now when things went wrong: the *outside* FM firm's DP Manager and/or staff!

- However, even **Compucare's** pros were still human, and ran into the same problems:
  - Writing code for even "simple" systems like Census, Billing and AR was hard in the challenging world of healthcare…
    - Insurance proration, late ADT input, etc.
  - Let alone the new world of clinical apps…
    - Orders, Results, LIS, RX, RIS, etc.
  - Plus "sharing" code among *disparate* hospitals…

Irony 101

- The biggest challenge Compucare faced was with *clinical* applications, like Orders, Results, Lab, RX, etc.

- As we saw with mainframe self-development, most hospital mini shops started with *financial* apps like:
  - AR & Billing (those Medicare **1453s**, **1483s** and 1554s)

- How to get the *clinical* apps needed?

  - In 1973, Shelly struck a deal with a another fledgling firm in Boston who claimed to have a dynamite suite of clinical apps they were developing for client hospital in Cape Cod…

  - You guessed it: **Meditech!**

  - So now Compucare had a "Total HIS!"

Exeunt stage left…

- After overcoming these challenges, Shelly (ever the pioneer!) left in 1975 to form another daring venture:
  - **SIDA**, one of the first and most successful HIS consulting firms.
- Leaving **Compucare** in the hands of <u>Ron Aprahamian</u>

- Under Ron's tutelage, Compucare concentrated on Data General minis, with bundled turnkey software & detailed installation comprising a "Total HIS."

- Along with a host of competitors also developing turnkey mini systems, Compucare sold like hot cakes in the late 70s and early 80s.

- In 1985, Ron sold Compucare to supply-firm giant **Baxter**, who had bought up several other mini vendors: Dynamic Control (Delta) and JS Data(Alpha), plus a mainframe option (Omega).

- In their g{r}eek world, Compucare was now "Sigma."

THE SECRET TO SUCCESS

The Compucare Company reveals the information industry's best-kept secret: the SIGMA Hospital Information System.

SIGMA's features read like a hospital CEO's wish list. Modular systems. Clinical depth. Software flexibility. Ad hoc decision support. Advanced Data General hardware.

SIGMA is the culmination of over two decades of R&D, developed from an internally-written *fourth generation language*, and encompassing over twenty-five proven, totally integrated, functionally rich software systems.

So SIGMA has the information management capabilities to assure that you'll make your business decisions based on clear, accurate, *pertinent* information.

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Data General
SYSTEM DISTRIBUTOR

But wait, there's more!

- **Baxter** paid $73M for **Compucare**, a *huge* sum in those days, reflecting just how promising mini systems were.

- So Ron could have taken his money and retired right?

- Wrong! This story gets even more incredible:

- **Baxter** joined forces with **IBM** to form **IBAX**, and re-named all their acquired products:
  - JS Data (Alpha) became Series 3000
  - DCC (Delta) became Series 4000
  - Mainframes (Omega) became Series 5000
- Since they were out of numbers, **IBAX** sold Compucare (Sigma) back to, guess who?
- *Ron Aprahamian*, in 1987 for about $30M!
  - *Let's see, sell the firm for $73M, buy it back for $30M, that leaves a profit of...*

We're Baaaack…

- Well, if you can do it once, you can do it twice…

- So Ron, with the help of other gurus like Ransom Parker, COO, and Christine Chapman, R&D VP, started building a whole new system to replace Sigma.

- They called it "**Affinity**," and it featured:
  - ANSI-standard MUMPS (shades of **Boston**?)
  - Open-architecture through a UNIX OS
  - RISC hardware (the latest in mini boxes)
  - Full suite of financial & clinical apps

- Needless to say, Ron was open to offers…
  - And got one in 1998 from **QuadraMed** for 2.7M shares!
    - **QuadraMed** had also acquired dozens of smaller firms…
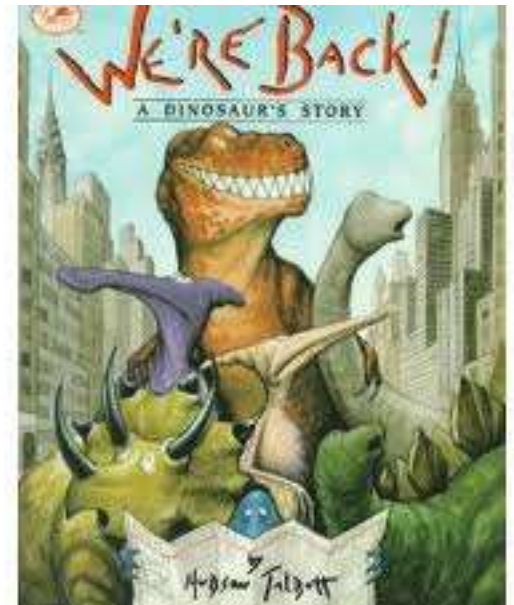
Where are they today?

- **Sheldon**
  - After selling SIDA's "3000" data base to HIMSS, Shelly went on to become CEO of The Dorenfest China Healthcare Group based in Shanghai, "actively investing its skill, technology and capital in in well defined projects to help China to improve its healthcare system."

- **Ron**
  - No moss grows on this man! He has since been:
    - Chairman of the Board of Superior Consultants
    - Independent Director of First Consulting Group

- **QuadraMed**
  - Affinity went on to be implemented in about 200 hospitals at its peak, and is still running in *scores* of sites to this very day. It has since been complemented by QuadraMed's acquisition of Misys' "CPR" E.H.R., --- but that's a story for another installment of HIS-tory.

MANAGE CHANGE — FROM BEDSIDE TO BOARDROOM — AND BEYOND

COMMUNITY HEALTH CENTER

AFFINITY
THE COMPUCARE COMPANY

Muchas Gracias!

- For input to this week's episode:
  - **Ed Gavin** – former McAuto sales rep and AA guru, who worked at Compucare in the '80s, before joining our consulting firm.
  - **Sheldon Dorenfest** – who took valuable time off from his hectic travel schedule to/from China, whose HIT market he finds much like the US was back in the 80s!

- For input to *next* week's episode:
  - **David Pomerance** – former hospital CFO in Florida, who built a system on an IBM System 3 mini for his hospital that was so good, he sold it to 250 more hospitals!

"H.I.S.-tory" by Vince Ciotti

#18: A "Maxi" Mini Pioneer:

DYNAMIC CONTROL

oxymoron

a short phrase that combines two normally contradictory terms

"That building is a little bit big and pretty ugly."

But first…

- Some feedback from last week's HIS-tory installment, which featured FM pioneer **COMPUCARE**. John Indrigo, an HIS veteran who worked for many vendors over his 30+ year career, sent in this email:

  "Hey Vince, Not sure if you plan on covering this in a later edition: Roy Kern deserves a mention for his creation of Innovations in Technology, a facilities management firm that he eventually sold to Keane. He too FM'ed System 38 mini projects, and his VP of Sales was Ray Paris, of later Keane fame."

  -- John P. Indrigo President, JPI Enterprises LLC, 813-503-0400

  - We'll definitely cover Keane in an upcoming Mini installment, soon as I can get in touch with Ray Paris, retired in NY & FL… They were not only a major mini player then, but survive to this day!
  - If you have more to add (or subtract!) from these HIS-tory episodes, please email me at:

    vciotti@hispros.com

A "Maxi" Mini Vendor

- We're now into the 3rd epoch of HIS systems: turnkey minicomputer systems, that arose in the 60s & 70s to challenge dominant shared systems like SMS & McAuto

- Our story this week focuses on a monster system that grew out of an inhouse self-development effort at:

  - **Variety Children's Hospital**, in Miami, today known as Miami Children's Hospital a 200-bed facility.

- They hired **David Pomerance** as a consultant to help them program an HIS on their new **IBM** minicomputer.

  - David was a CFO in the Miami area, whose neighbor, an **IBM** rep, talked him into taking courses in RPG coding as "the next big thing." Seems **IBM** had just announced "The Spirit of 7 and 6" in the early 70s to celebrate their new System 7 minicomputer…

Techie Minutia

- Dave had programmed before on an **NCR 400** using magnetic tapes to replace cardboard ledger cards.

- He bought some books, went to IBM classes, and learned how to write RPG (Report Program Generator) code.

- IBM's System 7 was a sensor-based mechanical device, so Dave started with a System 3, Model 6 mini instead.

- He programmed it in RPG and Assembler using punched cards as input to the Common Control Program (**CCP**)

- He next moved up to a System 15, adding ADT and Order Entry to the hospital's financial system foundation.

Variety Children's was opened in 1940 by Variety Club charities. On right is today's **Miami Children's:**

Miami Children's Hospital

IBM's Sales Machine

- **IBM** asked Dave to go on a road show and show other hospitals what he was doing on their hot new mini.
  - A number of hospitals were asking about Variety's software…
- Dave presented at **IBM's** ECHO (Electronic Computing, Health Oriented) conference, the 70's version of HIMSS.
  - They even flew him to *international* conferences!
- Several organizations asked for his RPG help too, and in the late-70s, he decided to form his own company.

- Starting out on a shoestring budget. Dave remembers writing code for lawyers, engineers, etc, *anyone* who would pay for his code…
  - (shades of **Meditech's** early days?)
- His wife was an early keypuncher…

What's In a Name?

- There were weird names for HIS vendors back then; how many of these creative monikers do you recognize?

  - Another Direction
  - Creative Socio-Medics
  - Computer Synergy
  - Gerber-Alley
  - Jones Hosplex
  - Hytech
  - Infostat
  - Lab Force

  - LeBlanc-Schexnayder
  - Pentamation
  - Poorman-Douglas
  - Phamis
  - RNact
  - Smart Software
  - Systemed
  - Vertex

- Dave and his VP of Sales, **Mitch Laskey**, came up with an oxymoron that would turn heads (and ears!) for years:

  - **Dynamic Control Corporation** – how else to sum up how turnkey minis let hospitals control their options, unlike shared systems, where the vendor ruled…

Sales Success

- **DCC** sold like wildfire, riding the coat-tails of **IBM's** continued release of new minis, each with better price/performance than the last: System 34, 36, 38, AS/400…

- It wasn't easy, however, as a number of other vendors' mini systems (DEC, DG…) were selling well back then too. **IBM** just *dominated* the hardware market, as this graph from the early 1980s illustrates ($s in 000,000s):
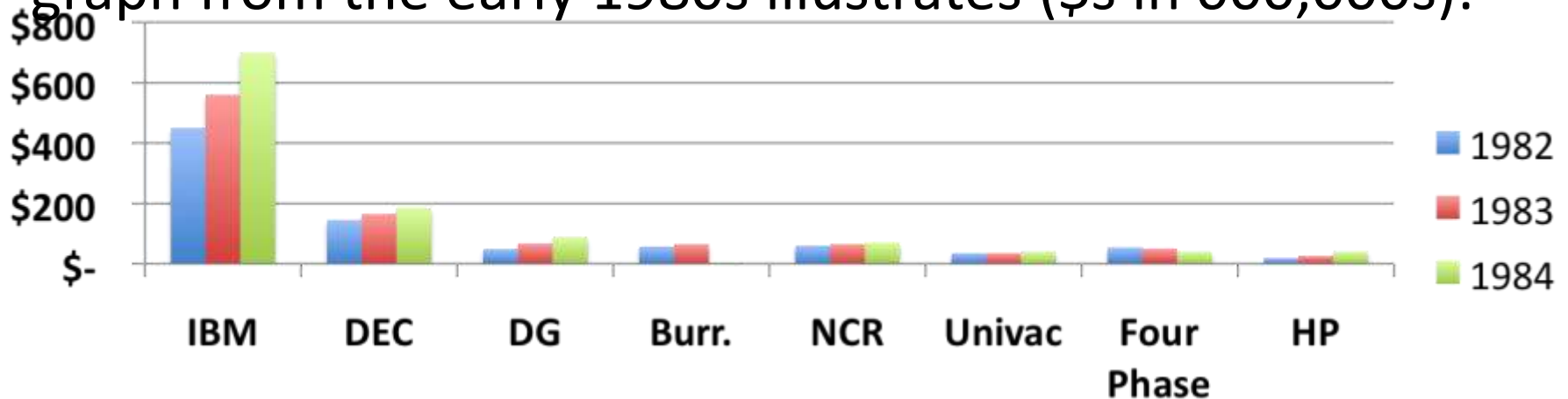
Too Successful?

- **DCC** not only *stole* hospital *clients* from shared systems, they recruited new sales *personnel* from McAuto:
  - <u>Steve Dougherty</u> – who I met during my stint at Mac where he was Regional Manager of their Central division in St. Louis.
  - <u>Matt Lawton</u> – amazingly bright sales support maven from McAuto, who could argue the case for a System 38 with god!

- However, DCC"s rapid growth brought them the attention and temptation to sell out to monster firms looking to buy their way into the HIS mini revolution, the biggest of which were the supply giants like **Travenol**, **Baxter** and American Hospital Supply, who not only bought **DCC**, but also bought *each other!*
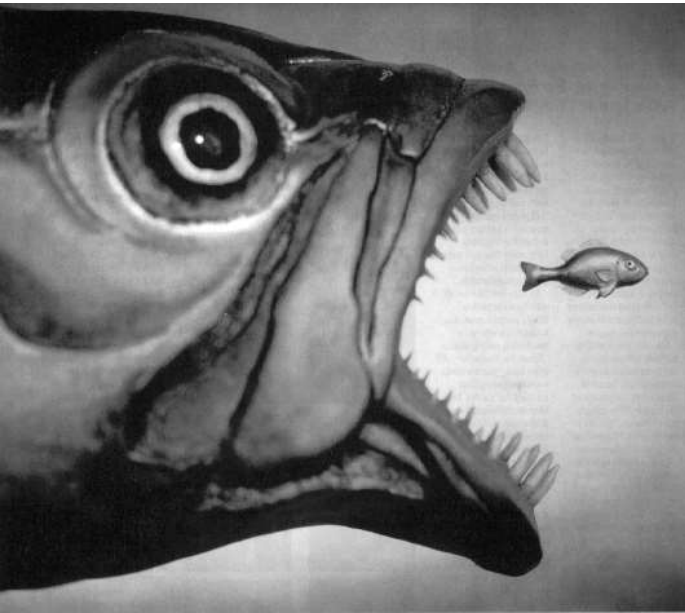
Baxter/Travenol/AHS

- It will take a whole HIS-tory episode (or book?) to relay the corporate intrigues that brought these three supply giants together, but our focus is on how they re-named **DCC** as "Delta" with two other HIS acquisitions:

  - <u>JS Data</u> – focusing on small hospitals (<100 beds), running on **IBM's** System 36, called "Alpha."

  - "<u>Stony Brook Systems</u>" = **IBM** "PCS/ADS" mainframe software they acquired in NY and named "Omega."

THE SMALL MEDIUM LARGE GANG

ZIPPITY ZAPPITY ZOO   FLIPPITY FLAPPITY FLOO   DIPPITY DAPPITY DOO
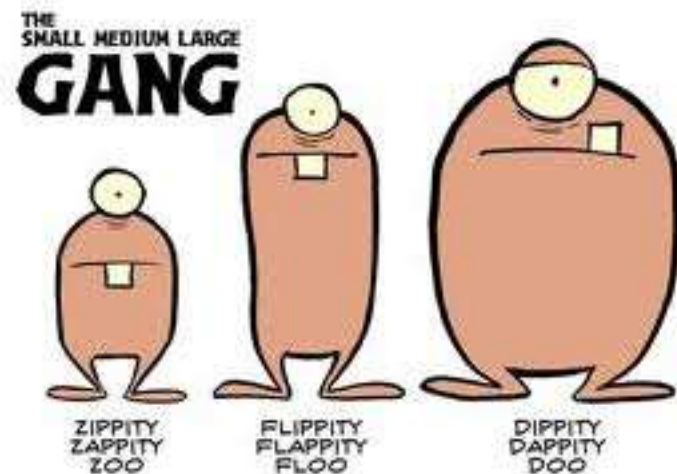
So Baxter/Travenol now covered the waterfront, with products for every size hospital, and **DCC** was their stellar "mid-range" option, selling like hot-cakes into 100 to 400-bed community hospitals.
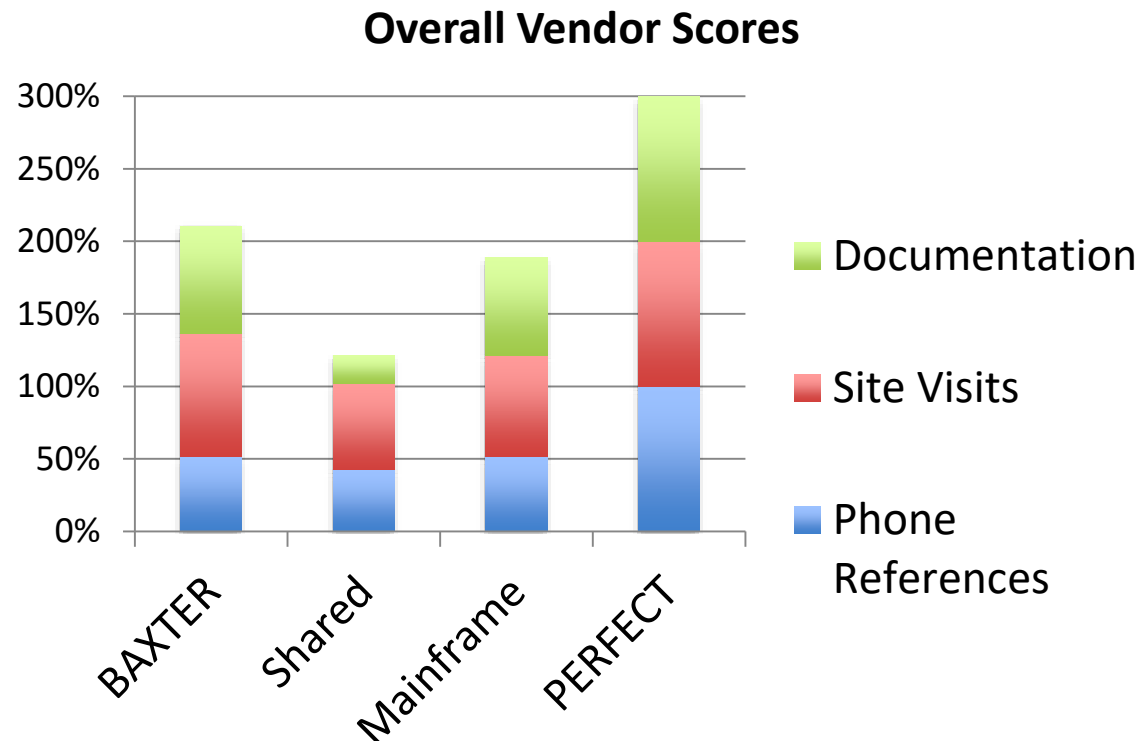
A Hospital's Perspective…

- **Baxter** bid Delta (DCC) to a 250-bed *1988* consulting clients of ours, so here are is fascinating table from my personal archives (translated from Microsoft Works 1.0!)

- First, **Baxter's** "Delta" *costs*, compared to 2 alternatives:

  - As you can see, the turnkey mini approach was less expensive over 10 years than shared or mainframe alternatives…

  - Whose vendor names are hidden to protect the innocent!

	BAXTER (AS/400)		Vendor B (Shared)		Vendor C (mainframe)	
Capital:						
Software	$	486,000	$	-	$	229,000
Installation	$	389,000	$	250,000	$	140,000
Hardware	$	457,000	$	125,000	$	1,584,000
Misc (eg: travel, OS)	$	300,000	$	175,000	$	440,000
Sub-total:	**$1,632,000**		**$ 550,000**		**$2,393,000**	
Operating:						
Software	$	75,000	$	350,000	$	22,000
Hardware	$	27,000	$	12,000	$	35,000
Misc (eg: interfaces)	$	25,000	$	28,000	$	31,000
Sub-total:	**$ 127,000**		**$ 390,000**		**$ 88,000**	
5-Year TCO:	**$2,267,000**		**$2,500,000**		**$2,833,000**	
10-Year TCO:	**$2,902,000**		**$4,450,000**		**$3,273,000**	

Hospital's Perspective, cont'd…

- It wasn't all a question of costs, of course, when selecting a system, so we ran user departments through a series of:
  - <u>Phone reference checks</u> - our own *unexpurgated* "KLAS"
  - <u>Documentation reviews</u> - *paper* user manuals back then
  - <u>Site Visits</u> - *un*-chaperoned interviews with fellow dept. heads

- As you can see, **Baxter's** Delta mini out-performed the shared and mainframe vendors handily,
- Based on evaluations by the actual end users in Admitting, Nursing, Billing, Lab, GL, etc.
- A much more important "bottom line!"

Overall Vendor Scores

Legend: Documentation, Site Visits, Phone References

Categories: BAXTER, Shared, Mainframe, PERFECT

Merger-Mania Continued!

- Baxter sold over 200 hospitals on Delta, making it one of the best-selling turnkey mini systems of the 1980s.

- Since all 3 of the supply giant's products ran on IBM,

   (Alpha on Sys 36, Delta on Sys 38, and Omega on mainframes)

   their next move was predictable: "partner" with IBM!

- What do you call the combination of **I**BM and **Bax**ter?

- Why: **IBAX** of course, the "next big thing" in 1989 HIS, who immediately re-named their 3 acquired products:


- JS Data/Alpha became Series 3000
- DCC/Delta became Series 4000
- Mainframe/Omega = Series 5000
- Got it? Good because it's all gonna change with the next merger…

From Mr. HIStalk himself…

- He was kind enough to send in some information about the early IBM/Baxter days, reminding me that before the name **IBAX**, they tried the moniker "**Spectrum** Healthcare Solutions," for their range of systems covering small, medium and large hospitals.

- The chameleon name-game ended when:

" *they got sued by the Spectrum ED staffing group over the name.*"
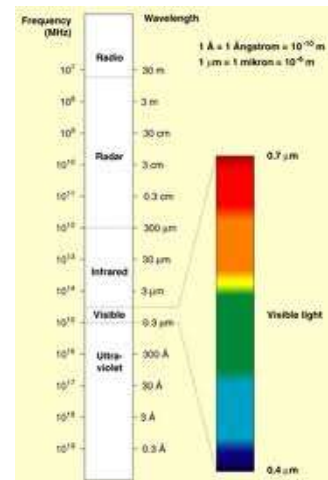
More from The Man...

- "Back then, there were no 'releases' - the implementers (as they were called then) just left each new site with a backup tape that included their customizations and that became the next release. Clients had source code, so it was up to their own programmers to merge their own customized code with the new 'release.'

  - For that reason -- this is almost impossible to comprehend -- **Dynamic Control** did not start charging maintenance fees until years later! You bought the software licenses and you were done. Only later did they start charging a maintenance fee and it was a tiny amount, like low single-digit percentages of the license fee, maybe $1,500 a month or something like that..."

One More Time…

- **IBAX** grew to 800 employees, and was headquartered in Hauppage, Long Island, close to Stony Brook Hospital, the site of mainframe software "Omega's" development.

- CEO of the new firm was Frank Russo
  - Former CIO at Stony Brook University Hospital
  - Who built Omega using **IBM's** "PCS/ADS"
  - (Patient Care Sys/Application Development Sys)
  - **IBM's** tools for "roll your own" mainframe sites,
  - Which evolved from the "Duke/Parkland" System.

Frank A. Russo, President, Systems Division, Baxter Healthcare Corporation.

- Needless to say, **IBAX** too was open to offers…
  - And in 1994 **HBOC** bought them and their ≈500 clients!
    - **HBOC** by then had also acquired *scores* of other HIS systems,
    - The complete story of which will fill a future episode…

Where is the DCC system today?

- First, the *final* acquisition (at least 'til now!):
  - In 1998, HBOC sold itself to drug giant McKesson,
  - Which must have been high using its own meds
  - To believe HBOC's hyped-up revenue figures,
  - Which eventually got 3 top HBOC execs in prison...
- What did McKesson do with the Series suite?
  - Why, of course: *change their names!*
- Since McKesson wasn't very good at math,
  - They combined **3000** (Alpha/JS Data)
  - With the Series **4000** DCC/Delta
  - To get "Series **2000**," later shortened to just "Series"
- ***Series**-ously?*
  - It's *still* running in 200+ hospitals on IBM's "iSeries" (AS/400 successor)

KLAS Report Ranks McKesson's "Series" Solution as Top HIS!

Read about it

KLAS Enterprises is the only research and consulting firm specializing in monitoring and reporting the performance of the healthcare's information technology vendors.

Muchas Gracias!

- For input to this week's episode:
  - **David Pomerance** – who regaled me with the inside story of DCC, taking time off from his job (he's still working!). Actually, sounds more like fun: an *airplane* business in sunny Florida that he's built up to over $80M!

- More feedback on *last* week's episode:
  - **Sheldon Dorenfest** – who emailed from China: *"Thank you for your kind comments in your last episode. You said China is like the US in the 50s & 60s. Actually, China is more like the US in the 70s & 80s."*
  - Ever the man to get the facts right!

H.I.S.-tory by Vince Ciotti

Episode #19:

"Keen" on KEANE

But first…

- Perspective on where we are in the 3rd decade of our HIS-tory:
  - **1960s = Mainframes, 1970s = Shared Systems, 1980s = Turnkey Minis**
- Hard for we moderns to remember back when hardware dictated the HIS system, since servers are so up in the "cloud" these days…

- Minis were taking over the HIS industry by the late 70s, from shared giants SMS & McAuto, who also offered minis.
- A turnkey mini even made the cover of Modern Healthcare's October 1978 issue, featuring <u>Methodist Hospital of Indiana</u>:

  "Some hospitals are finding they don't have to change the way they operate to accommodate a newly installed, commercial, computerized medical information system – they can make it fit their routines."

One Man's Story

- The story of **Keane** actually does *not* begin with John Keane, who formed the firm in the 60s to work in many industries, just like McAuto's GSD (*General* Services Division) presaged its HSD (Health Services Division).

- John Keane's Boston-based eponymous firm sold IT services to *anyone*, e.g., they helped manned the 800 lines for MicroSoft's "Windows 95" GUI in 1995...

- The story of Keane's *HIS* is the story of another man:

  - **Ray Paris**, one of the early HIS pioneers whose career both before and after creating Keane's HSD is a mini "HIS-tory" in itself!

  - *Many thanks to Ray for taking time off his busy retired golfer schedule to relay this tale!*

McAuto Roots

- Like so many HIS pioneers, Ray cut his HIS teeth at McAuto in the early 70s, where he met notables like:
  - <u>Walt Huff</u>, who interviewed Ray, but left to form HBO
  - <u>Ron Johnson</u>, vendor guru and early McAuto sales rep
  - <u>Jim Navin</u>, another early Mac maven (before Hafty…)
- Ray was hired in 1972 and started work at McAuto's posh offices in NYC's Chrysler building.

- *Contrast it to SMS's first NYC area office in this former water company building in glamorous Woodbridge, NJ:*

Early Sales Successes

- Ray remembers getting a harassing phone call from **SMS**' NY rep, Dick Davis, who promised to eat Ray's *lunch*...
  - (as you'll see with Ray's success, it was just a few *crumbs*!)
- Ray started selling **McAuto's** HFC aggressively, winning a *huge* NJ account: <u>Hackensack Medical Center</u>

- One of **McAuto's** largest account at the time, 500+ bed Hackensack later became a (too) "early adopter" of Siemens Soarian, and then recently took an Epic plunge...
- **McAuto's** sales manager Ron Johnson tried to keep this sales superstar in the fold, but...

Ray Listens to "FM"

- In 1976, Ray left McAuto to join Ray Kern's <u>Innovations in Technology</u>, the pioneering Facilities Management (FM) firm, **John Indrigo** told us about just last week.

- The FM concept sold well back in those self-development days, when inhouse mainframe projects seemed to take forever, and hospital management was eager for a "white knight" to come over the horizon…

- Paris became Ray Kern's sales maven, building up the firm to where it caught the eye of John Keane in Boston.

  - <u>John Keane</u> acquired Innovations and Ray Paris, became VP of their new HSD division, which he headquartered in Melville, "Lon Gisland"

    (that's how it's pronounced in NY!)

Turnkey Turncoat

- **Keane** kept selling FM at first, but gradually realized that turnkey minis were sweeping the field in the late 70s.

- Following the market's preference (prejudice?), they first considered a mini system on an **IBM** System 3,

- Before hearing about a pioneering (1950s) computer manufacturer in Mass., headed by founder <u>An Wang</u>.

- **<u>Wang</u>** first made calculators, the rage in the 60s, then made minicomputers in the 70s.

- **<u>Word Processing</u>** became their hot niche, in this era of typewriters and carbon paper.

- **Keane** realized the power of Wang's CPU, and used it to build their mini-based HIS.

A Rose By Any Other Name…

- The name "Wang" caused quite a few snickers in buying circles at first, compared to the fame & clout of **Big Blue**

- **Keane's** development maven, Ray Gottleib, jumped on Wang's powerful Model VS80 with intelligent terminals, to build their mini-based HIS system, sold first as an FM.

- The price/performance was so good, however, 30 were sold as *turnkey* systems, ending **Keane's** FM approach.

- Eventually, the **IBM** name & dominance won over, and Keane offered HIS systems on **IBM** Sys 3 and 34 minis.

- In the 1980s, **Keane** tried an early UNIX-based system called "Threshold," that was hardware independent, but the R&D proved difficult to complete…

A Choir of Acquires…

- **Keane** grew rapidly in the 80s through a series of acquisitions, just like competitor HBO was doing.

- All told, **Keane** acquired *13* HIS vendors, including:

  – **Pentamation** – a Maryland-based firm, who had recently been acquired by **Ferranti** from the UK

    - (the first of many forays by multi-nationals into US' HIS)

  – Their "Leadership Series" mini system was a hot in acute care, along with a surprising successful niche:

    - Long Term Care systems, in which Ferranti/Pentamation had become a market leader. Although low in individual system price, eventually, **Keane** would become dominant in this specialty market with *over **1,000*** clients!

Other Acquisitions

- Some of the 13 firms Keane gobbled up over the years, each of which could be its own mini-"HIS-tory," include:

    - **Source Data Systems** (ex-NCR MedNet)

    - **Executive Data Systems**, Cedar Rapids

    - **Community Health Computing**

    - **Infostat** (UNIX on AT&T hardware)

    - **LabFusion** – stellar LIS niche player

    - Etc., etc., etc…

    - We'll delve into two of Keane's most long-lived acquisitions:

        - **First Coast** – an **IBM** mini-based turnkey system formed by Charles Gibbs in Jacksonville, with about a hundred clients…

            - Renamed (surprised?) as "InSight," with a full suite of financial & clinical apps running today in ≈50 hospitals

AMI/PHS

(Sorry for the acronyms, but this *is* the HIS industry, right?)

- **AMI** = American Medical International, a chain of proprietary hospitals HQ-ed in LA, that competed with other multis of those days like AAM (PA) and HAI (TN)
  - **AMI** tried to gain a competitive advantage by building its own DG-based HIS, using its owned facilities for R&D input/pilots.
  - Their HIS subsidiary was "Professional Hospital Services," that built an HIS called "Pat-Com," with *superb* Patient Accounting…
    - Still runs *today* in Johns Hopkins!

- Many ex-SMS alumni populated PHS:
  - Rich Haynes, PHS' founder & CEO
  - Art Harris – who started at AHS' ISD
  - Rich LaBelle – from my Ed. Dept.
  - Arnie Caplan, ex-SMS ID Mgr, and one of the nicest guys in HIS-tory…

Merger-Mania: Mangia!

- **Keane** bought so many competing systems, it is only fair that eventually they got bought themselves, *twice!*

- First time was by **Caritor**, in 2007 for $845M, an IT firm that made it's fame outsourcing development to India…

- Who sold Keane next to **NTT** (Nippon Telephone & Telegraph) in 2010 for $1.2B *(nice profit in 3 years!)*

- Today, **Keane** still dominates the LTC market with their
  - "NetSolutions," descendant of Ferranti/Pentamation

In the HIS space, they offer:

- "Optimum" – a combo of Pat-Com's superb RCM, and

- "iMed" – Keane's home-grown E.H.R. (*not* acquired!)

Help for Next Week!?

- The next monster mini I want to tackle is **Systems Associates, Inc. (SAI)**, formed in Charlotte, NC in 1966. Their Saint product had an incredible run, and lives on today as McK's Paragon…

- I've learned a few details:
  - <u>John (or Jack?) Weil</u> was the founder – anyone have his contact info?
  - <u>Larry</u> Ferguson – was a sales rep, then took over & sold SAI to Amex, then FDC, then HBOC; anyone have Larry's contact info?

- Thanks much already to the follow "HIS-tory heroes" who helped me get me this far:
  - Sheldon Dorenfest, of SIDA fame
  - Dave Pomerance, founder of DCC
  - John Indrigo, of Infostat fame in TX
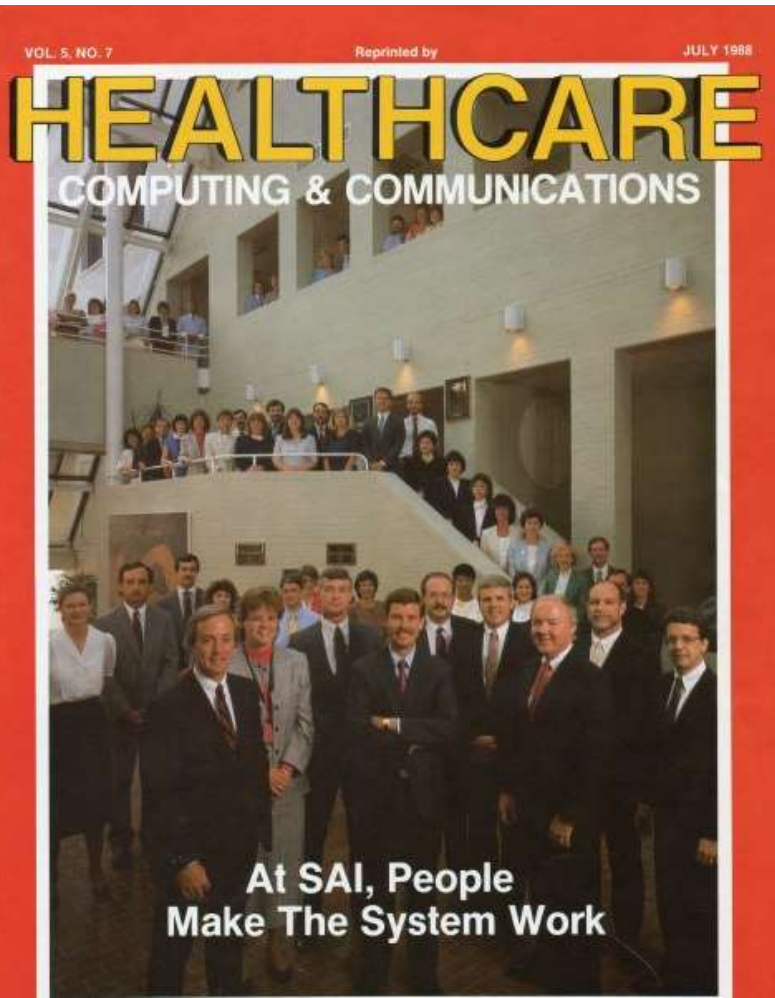
- Please send any info to: *vciott@hispros.com*

H.I.S.-tory by Vince Ciotti

Episode #20: A "Saint"

SYSTEMS ASSOCIATES INC. SAI

But first…

- A huge thanks to the whole SAI family of **Saints**, who have a thriving alumni Facebook web site, that Mr. HIStalk (who else?) found:
 - http://www.facebook.com/group.php?gid=136508283116

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HEALTHCARE
COMPUTING & COMMUNICATIONS

At SAI, People Make The System Work

- And one "Saint" in particular whose HIS career alone would be a miniature history of our industry:

- **Larry Ferguson**, president of SAI from 1985 on, who appears on this dusty cover of "Healthcare Computing and Communications, and kindly took time off from his busy golf schedule to tell the tale

Another Man's Story

- The story of SAI actually belongs to *another* man, who sadly passed away just a few years ago: **Jack Weil**

    *(Another reason why these stories must be told **now**: many of the original "HIS Heroes" are passing on – hell, I start getting Social Security checks this month!)*

- Like so many HIS industry pioneers, Jack started his HIT career in the 60s, along with a high school buddy, Mason Chrisman (SP?), high school classmate from Charlotte.
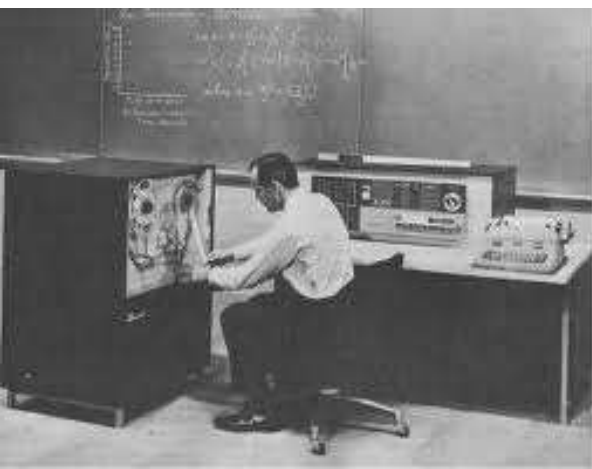
- Just like almost everyone else in the business, Jack and Mason cut their IT teeth working for **IBM** in the early 60s.
- Jack left Big Blue to be DP Manager at Norcom National Bank in 1964-1965.

System Associates, Inc.

- In 1966, Jack & Mason left the bank and formed their own computer company, **SAI**, originally do do contract programming for banks or *any other* industry.

  - (shades of early Meditech, Epic and McAuto's GSD...)

- They first wrote programs for **IBM** mainframe and mini systems, but soon branched out when they encountered their first hospital client: **Charlotte Memorial Hospital**.

- Charlotte Memorial was a Burroughs shop, running their early HIS software called:

  - "**BHIS**" (Burroughs Hospital Information System)

Aside on Early "Pilots…"

- (If you've been following this HIS-tory series, you may have noticed the pattern that so many pioneering systems were first developed at "pilot" hospitals:
  - McAuto's "**HFC**" at the Order of St. Francis in Peoria, IL
  - IBM's "**HIS**" at Monmouth Medical Center in NJ
  - Lockheed's "**MIS**" at El Camino Hospital in CA
  - Meditech's "**HCIS**" at Cape Cod Hospital in MA
  - **Dynamic Control** at Variety Children's in FL

- So it always pays to be the first wildebeest at the watering hole, right?
- Not so fast, we'll cover a number of sad stories where being first customer meant you found out what might be lurking in the water…)

Another Government Grant

- Another HIS-tory pattern is *government grants*, to whit:
  - Walt Huff and his grant at OSF to build HFC, post-Medicare
- Jack Weil too found another "pilot" that had received a government grant to build a Pharmacy system: **Duke**
- Jack noticed the pattern that hospitals seemed to have the money, so SAI soon concentrated an healthcare, gradually expanding the **Charlotte Memorial** and **Duke** applications to encompass the full suite of HIS apps (translated into 2011-speak in red for you newbies):
  - Financial apps like ADT (Access), Billing & AR (Revenue Cycle), Inventory (Materials), Personnel (HR), General Ledger (ERP)…
  - Clinical apps were rudimentary by today's higher standards (BMV, eMAR, Med Rec, CPOE…), but in those days, just having Order Entry and Results Reporting applications was *huge!*

Sales Successes…

- SAI named their HIS "**SAINT**," punning on the first 3 letters, but it was *just that* to scores of small hospitals who loved:

  - <u>Turnkey Approach</u> – just like **Compucare**, **DCC**, **JS Data**, etc., all you had to do was buy it and turn the key!

  - <u>Service Ethic</u> – small start-up companies like **SAI** *had* to keep their clients happy to sell more.

  - <u>Affordability</u> – the bundle of apps, minicomputer hardware and installation was cheap!

  - <u>"Total HIS"</u> – note the quotes – it was no MIS or PCS, but it covered all the bases: financial & clinical.

SAINT Systems Sold

SYSTEMS ASSOCIATES, INC.
since 1966
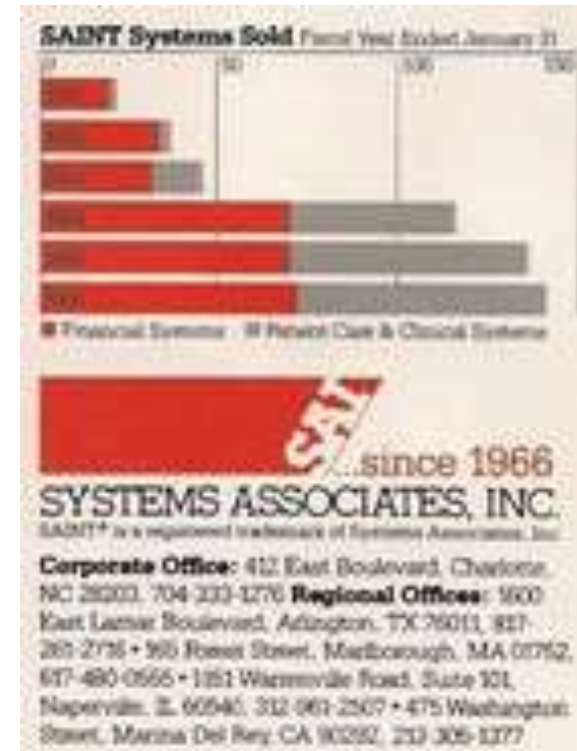
A Rose By Any Other Name…

- Technically, **SAI** had one oddity: its *hardware* platform.
- At a time when every other turnkey mini road the coattails of a hardware manufacturer, such as:
  - Compucare on **DG**, Meditech on **DEC**, everyone else on **IBM**
- **SAI** broke all the rules and picked an odd little box made by **Point Four** corporation, with great price/performance, but with very little name recognition.

- **SAI** covered up the Point Four name with a tag of their own, telling clients "what it matter, it's a mini!"
- On the left is the last surviving Point Four gear I ever saw at a 100-bed hospital in upstate NY circa 2000.

What Might Have Been…

- I actually jump into the **SAI** story for a minute, er, week, as you'll see…

- In 1980, I had joined McAuto in St. Louis as a turncoat from **SMS**,

- And was given the assignment of helping hire 20 new sales reps to boost McAuto's sales efforts.

- I was helping Charlie Kean in the South, and came upon the resume of a hot young rep for SAI named Ferguson.

- I filled Larry's ears with all my **SMS** marketing charm, got him to St. Louis for interviews, and he joined us in 1980!

- Within a week, Jack Weil countered, hired him back, and the rest, as they say, is HIS-tory, as Larry soared at **SAI**!

Rapid Growth

- Larry was an enormous success as a salesman at **SAI**, so much so that in 5 years, by 1985, he become CEO.

- When Larry joined **SAI** in 1980, the firm's stats were ≈
  - $5M in annual revenue (*told you SAINT was cheap!*)
  - 25 hospital clients (*most small, 100 beds or less*)
  - 50 FTEs (7 in sales), including many HIS notables:
   - Daryl Bowles, Tony Baretta, Liz Tsumas, plus several I had the privilege to know personally:
    - **Harold Key** – an **SMS** turncoat like me, who brought all of their sales savvy with him…
    - **Karl & Beth Friedman** - a dynamite husband and wife team that went on to form their own vendor consulting company (*healthITmktg*)

Acquisition Time!

- Under Larry's leadership and the hard work of those early employees, **SAI** grew enormously to $50M annual revenue and about 250 **SAINT** hospital clients at peak.
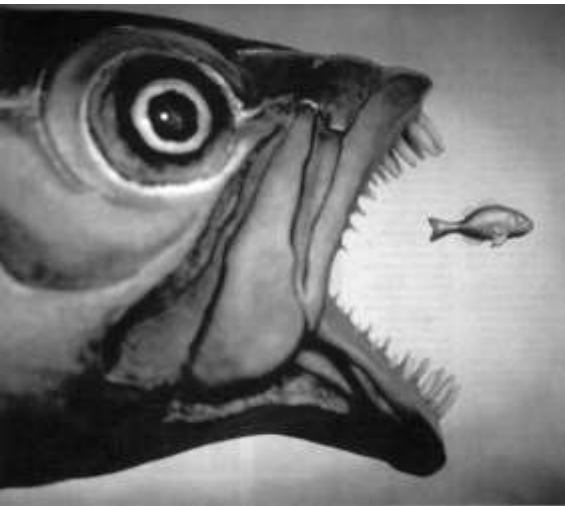
- True to form among early HIS vendors, SAI's explosive growth caught the attention of one of the "biggest fishes" in the US pond: **American Express**

- **AMEX** was looking to diversify beyond its core credit card transaction business

- **AMEX** also bought a Visa/Master Card transaction processing vendor named First Data Corporation in Iowa

- **SAI** was re-named **FDC**, and starting acquiring HIS firms.

Minnow Swallows Whale!

- In an amazing bit of irony, tiny **SAI** with FDC/**AMEX's** enormous capital, started shopping for other HIS vendors to buy, so the new IT division would shine internally.

Perhaps every minnow thinks he's a WHALE....
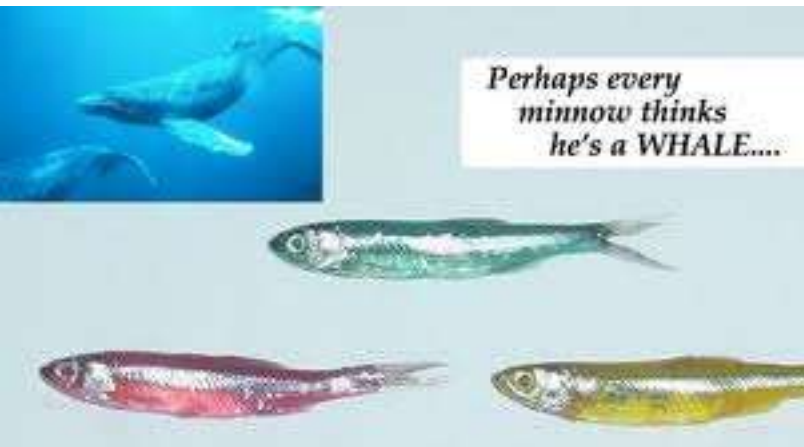
  - And who did they target?

    - **• *McAuto's HSD!***

  - By 1990, the parent airplane giant was shopping HSD around, and FDC got a steal for a paltry $77M (Mac's annual revenue was ≈$100M)

- McAuto by then was in a bit of turmoil, with a wide array of often-competing products on disparate platforms:

  HFC, PCS, HDC+, MHS, I.H.S., MRII, RX-Com, LabCom, **Rad-Com,** etc, etc, etc.

Whale Bites Back!

- **FDC** also bought out **Gerber-Alley**, another rising young turnkey mini star, and even made overtures to **HBOC**!

- So what became of this HIS vendor-eating **FDC** monster?

- Well, it may sound like revenge, but the parent **Amex** corporation eventually shopped their **FDC** subsidiary around, and sold it to to Charlie McCall's **HBOC**.

- The Charlotte HQ of FDC/SAI was so big by then, **HBOC** kept it open, and poured a bit of R&D into Saint to make:

  - "Saint Plus," first introduced by **SAI** in the 80s, and

  - Saint Express, newer, more modern **HBOC** brochures, overheads & proposals.

Denouement

- So what happened to all these companies & products **HBOC** bought from **FDC**? Most were sunset, including:
  - **McAuto's** many acronyms (HFC lasted the longest)
  - **Gerber-Alley** (an HIS-tory episode in itself…)
- With the one major exception being **Saint Express**
- Around 1995, **HBOC** decided to give the old war-horse a true re-write, and take advantage of the latest R&D:
  - *Client/Server* systems! All the range back then…
- So what do you call this brand new system that's going to be the *best* HIS system in the small hospital field?
  - Just look up "Paragon" in your Funk & Wagnals!
- Yes, **Paragon** started out in life as a C/S **Saint** re-write.

First at the Water –Hole?

- *Back to our earlier question: is it good or bad to be a pilot or early adopter of a brand new HIS system?*

- **HBOC** sold ≈50 hospitals on their new C/S **Paragon** "vision" in the late 1990s, until the usual problems with any brand new HIS system inevitably cropped up:
  - Late delivery (we'll have it by the 4th Quarter of 199**X**)
  - Missing apps (oh, you wanted PR too?)
  - Bugs (realize, it *is* a brand new system)
  - Release 3.2.A-II… (that phase is coming)

- Same stories the "pilot" sites of *every* system have ever heard since ENIAC! (think Soarian, ProFit, Release 6…)

Aw Jeez, not this sh** again!

Risen from the Ashes!

- By Y2K, many Paragon early adopters either sued to get money back or just gave up & bought another HIS.
  - We helped two early **Paragon** sites ourselves get out of their contracts, which to **HBOC's** credit, wasn't *that* hard.
- **McKesson** execs in Atlanta were just as frustrated, as drug sales to Paragon pilots were rather difficult…
- New CEO Graham King sent VP Jim Pesce to Charlotte in 2001 to shut Paragon down.
- Jim took a look at the pure MS SQL data base and Windows OS, and pleaded to save it…
- Graham relented, Jim became Paragon's savior, and this Phoenix has risen from the ashes to be *the* hottest selling HIS in small hospitals today!

The "Pilot" Lesson?

- It took a while for **McKesson** to deliver all of the apps promised: PR and RX finally came around 2005-6.

  - And CPOE wasn't delivered until just a year or two ago…

- But hats off to **McKesson** (and Jim Pesce) for saving a bunch of pilot hospital CEO, CFO and CIOs' careers.

  - (Just as Soarian, ProFit and Release 6 will get finished too)

- So what's the lesson for hospitals today? Easy, don't be the *first* (or 2nd or 3rd), but let 10+ "pilots" go first!

  - Once all the apps are *really* there and the bugs are worked out, *then* buy.

  - And you'll be as happy as the 200+ Paragon sites today, running the "new" **Saint** with roots from 1965!

Help for Future Episodes!?

- The next episodes on turnkey minis I'd like to cover are:
    - <u>AR/Mediquest</u> – anyone have details on this early **IBM** player?
    - <u>JS Data</u> – another **IBM** Sys 34 mini player from Rhode Island
    - <u>MSA</u> – the "little one" from Raleigh, formed by Skip Shippee
    - <u>Gerber-Alley</u> – started life as an **HP** mini system written by Irwin Gerber and Terry Alley, then launched solo by Mike Brown; anyone have a GA story to tell and/or contact info?
- Thanks much already to the following "HIS-tory heroes" who helped with info & leads for this week's episode:
    - <u>Bonnie Hughes</u>, now with Cerner, who remembers MSA & GA
    - <u>Steve Kilgus</u> of SAI, who put me in touch with Larry Ferguson
    - <u>Mr. HIStalk</u> – an obscure blogger who found SAI on Facebook
- Please send any contributions to: *vciott@hispros.com*

"H.I.S.-tory"
by Vince Ciotti

Episode # 21:

Sentry Data

SENTRY

saves

Sentry Data provides fully-integrated, real-time
hospital information systems on Tandem NonStop computers

Contact Sentry Data, Inc. 1899 Wall St. Mt. Prospect IL 60056, 312-952-0500 x501.

INFOCARD 18

Another Hospital "Pilot"

- As we have seen many times in this HIS-tory, hospital pilots were responsible for developing & pioneering many HIS systems:
  - Walt Huff's "**HFC**" at the <u>Order of St. Francis</u> in Peoria, IL
  - Mike Mulhall's "**HIS**" at <u>Monmouth Medical Center</u> in NJ
  - Lockheed Aircraft's "**MIS**" at <u>El Camino Hospital</u> in CA
  - Meditech's early "**HCIS**" LIS at <u>Cape Cod Hospital</u> in MA
  - Dave Pomerance's **Dynamic Control** at <u>Variety Children's</u> in FL

- Most of these hospitals all had good experiences with their "early adopter" HIS approach.
- This week, however, we cover an episode with a frustrating series of ups and downs for its founding hospital, its executives and employees,
- Showing *both* sides of such ventures, that do have great up-side potential, but also a down-side…

Our "Geek" Tragedy Begins…

- In Chicago in 1975, with Tim Zinn's mini-based firm named: **DATX**

- Tim & Co. started with the same basic turnkey concept as **DCC**, **Meditech**, **Compucare**, **JS Data**, et al:
  - A "total HIS" on a minicomputer
  - *All* basic financial and clinical apps
  - Bundled hardware, software, install
  - Small company service & support
  - And at a price less than the equivalent shared system's "TCO"

- **DATX** sold well at first, signing up hospitals eager to embrace this new technology, and also eager to pursue *clinical* systems, which only ran on inhouse boxes, even if from shared system vendors:
  - McAuto offered HDC on a combo of DEC and Four Phase minis
    - Plus inhouse boxes for LabCom, RXCom, RadCom and PCS
  - SMS offered ACTIon on either Four Phase or DEC (no combo).

Act I

- Like most small start-up firms, financing was as challenging as the technological and R&D obstacles that had to be overcome…

- Most firms started with a small amount of seed money, then counted on rapid sales to cross over from **red** ink to **black** ink.

- **DATX** was no exception, struggling to complete the system and earn payments from early clients to meet its payroll…
  - (remember how SMS almost didn't make the transition in the early 70s!)

- For 5 years, **DATX** struggled before succumbing in 1980 when it entered bankruptcy liquidation - Chapter VII.

- Frustrating for:
  - Owners - hoped to make it BIG on Wall St.
  - Employees finding themselves out of a job
  - Client hospitals, who found out that they had bought the proverbial farm…

DATX

CAREER GROWTH POSITIONS FOR SOFTWARE PROFESSIONALS

THE COMPANY
DATX is a rapidly expanding provider of cost effective data systems to the health care industry. We use the latest distributed processing techniques.

THE POSITIONS
SOFTWARE COMMUNICATIONS SPECIALIST
To assume responsibility for our proprietary data communications software and to participate in new product development. Experience with GA 16/65 and 440, time sharing operating systems and assembler language is desired.

APPLICATIONS PROGRAMMER/ANALYST
To participate in the implementation of proprietary hospital data management systems and the development of related new products. Experience in financial or commercial applications using ANS COBOL is required. Experience in hospital applications, on-line techniques and minicomputers would be a plus.

THE OPPORTUNITY
Is NOW . . . . for consideration, please submit a resume including three references and salary history in confidence to:

Personnel Manager, DATX CORPORATION, Time & Life Building, 303 East Ohio Street, Chicago, Illinois 60611.

Act II

- Among the early clients was a community hospitals in Chicago:
  - [Norwegian American Hospital](#) (NAH) – that bought in 1978, made some install progress, but still had a ways to go:
    - The usual phases, bugs, delays, etc., with *any* new system...
- DATX employees approached the hospital with a proposition:
  - If it would fund a successor company to DATX, they would complete the project, creating a win/win/win:
    - [NAH](#) would get its system completed, and gain a major stake in a potentially lucrative IPO of the firm succeeded.

  - DATX executives would get a 2nd chance to make the firm succeed, take it public and make it big like HBO...
  - DATX employees would have a job, and a chance to finish the hot, new system they had worked so hard on...

Act III

- In addition, the software license and miscellaneous hardware could be bought at a *very* low price at the bankruptcy auction…

- With few options to complete their installation, **NAH** agreed, and in 1980, a new firm was formed, called at first "**HoCompCo**" for **Ho**spital **Comp**uter **Co**mpany (like Eclipsys started as "NewCo")

- **HoCompCo** employees started back to work on NAH's installation, which was completed within a reasonable time & budget.

- **NAH** became a "flagship site" for the new system, giving demos with rave reviews, since it had the system built to its own specs.
  - (Seem unfair? NAH wasn't the only one: nearby <u>Evanston Hospital </u>gave demos for many years for Medipac, developed by Medicus, earning ≈$75K per successful site visit. A good question to ask of any site visit you ever go on!)

"Under disclosure rules, I'm required to tell you I own stock in the company whose drug I'm prescribing."
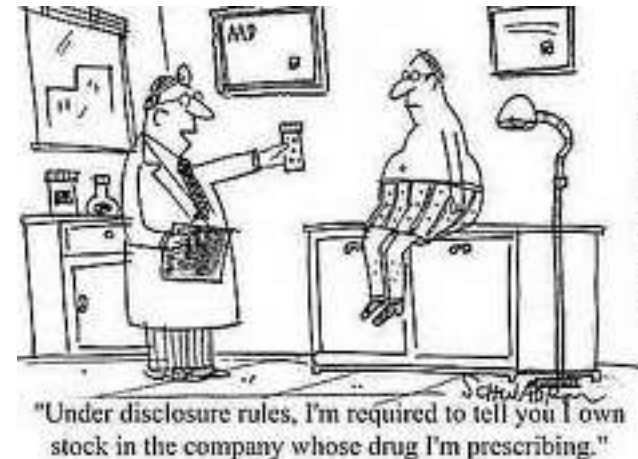
Act IV

- **NAH** gave such good demos, two other **DATX** customers bought the new system in 1981.

- **HoCompCo** was re-named **Sentry Data Inc.**, and the new firm was off to the races.

- Things went wonderfully well due to several innovations the new company had:

  1. Tandem "Non Stop" computers – introduced in 1974, they had *two* CPUs, *two* disks, etc. If one failed, the other took over automatically!

- Tandem "Non Stop" computers were perfect for healthcare, where care never stops, nor should the computer!

- Ironically, one of their first clients was Wall Street, where trading never stops.

What's a "*DDC*?"

- Glad you asked, as it has to be one of the all-time pieces of trivia in HIS-tory, and **Sentry's** hot techie ticket:
  - Most minis back in the 70s & 80s were challenged by system response times, as every character on every keyboard had the transmitted all the way back the CPU before the system was ready for the next keystroke. There were no PCs yet! The only "intelligent terminals" were the poor users, who had to wait and wait and wait, for these mini clunkers to respond…
  - Tandem was no exception, and the clinical arena posed major challenges for this slow reaction time in a "**STAT**" world!
  - So some very bright guys at Sentry came up with a series of "Distributed Database Controllers" (DDC) – bubble memory boxes linking a number of terminals and handling them *immediately*, updating the central CPU a few seconds later…
  - *Neat, huh?*

Sales Successes

- Sentry's sales started to rock, led by two HIS mavens:
  - <u>Gerry Mathys</u> – CEO – and all-around great guy, who could charm an IRS auditor, let alone a prospect hospital. I worked with Gerry at SMS in the 70s, where he came as part of the ISD merger from American Hospital Supply, and then later at Dorenfest & Associates, where we both landed apres Sentry.
  - <u>Rick Mager</u> – #2 at Sentry who led much of the early sales efforts; a graduate of RPI in NY, and equally smart/nice guy.

- Gerry, Rick and their growing team of hard-working employees (≈60) added 8 new sales to the original **DATX** 3.

- **NAH** was thrilled, and try to sell **Sentry Data** in the early 80s to recoup its investment, but no deals bore fruit.

Stock Sales

- So **NAH** did what every other mini vendor dreamed of doing back then: it took **Sentry** public in March, 1983.
  - In the 70s, early IPOs like SMS and HBO had gone great guns
  - SMS' stock split so often it was hard to value stock options!
    - Let's see, they gave me options on 1,600 shares in 1969 for $1 per share. SMS went public at $16 per share in 1975, which rose to $28 by 1977, when it first split to $14 per share. It rose again to $36 when it spilt in 1978 down to $18. So what was I worth in 1979 at $23/share????

- As we're learning day by day in 2011, what goes up must come down, and Wall Street's "Bull" eventually meets:

Vicious Spiral…

- At first, the stock took off, as **Sentry** seemed like another SMS and HBO, a "sure thing" to investors & brokers.

- Sentry sales prospects weighed the stock in their HIS deliberations too: everyone wants to be part of a winner!

- In late 1983, Wall Street took one of its many periodic down-turns, and **Sentry's** stock spiraled down too…

- Poor **Sentry** found itself caught in a vicious trap:

  - Wall Street brokers were looking for sales to boost **Sentry's** stock,

  - While hospitals were waiting to see **Sentry's** stock go up *before* signing…

  - *Can't win for losing!*

Second Collapse…

- The vicious spiral continued for about a year, with NAH having to shell out more cash to keep **Sentry** afloat.

- In 1984, NAH tried to sell the firm again, like so many other turnkey mini firms had done before,

- But the Wall Street downturn had spooked buyers too.

- **Sentry's** stock plummeted below its IPO, and on "Black Tuesday," a huge layoff halved **Sentry's** work force to 30.

- Things really got ugly when clients stopped paying maintenance bills to boot – worried they were pouring good money after bad…

- NIH hired Dorenfest & Associates to analyze the situation, and Sheldon wisely recommended putting the firm in Chapter XI

The End?

- Not quite: Shelly made one of his rare mistakes: hiring *me* to be Interim CEO of the bankrupt company and run it while he sought a buyer.
  - I had just left HIS, Inc. in Brooklyn, which will be another fascinating tale.
  - I had admired Shelly for years, and jumped at the opportunity to work with the master!
    - (Pay wasn't bad either...)
  - Which is how I learned all these gory details...

Healthcare Financial Management

What happens when a hospital becomes an HIS vendor?

BY VINCENT CIOTTI

It appears to be a simple step for a hospital to sell the software it has developed for its own operations. After all, the time and cost of development has been completed; it is just a matter of marketing it. But, as many hospitals have learned, marketing their software is not as simple as it seems. One case in point is Norwegian American Hospital in Chicago. It formed a subsidiary to further develop and market its software, and although it had early successes, the venture eventually met with failure.

The current healthcare environment has caused many hospitals to consider diversification efforts to boost falling inpatient revenues and transfer their technological expertise to other markets. The hospital information systems (HIS) industry has long been a potential market for hospitals to enter, even before the recent healthcare "revolution" of regulatory and other environmental changes. This article is the case history of one such hospital's effort to enter the HIS market, its origin, early successes, eventual failure, and recovery from bankruptcy.

BRIEF HISTORICAL BACKGROUND

This story begins in Chicago, Ill., in 1975 with the founding of one of the pioneers in turnkey minicomputer systems: DATX, Inc. Offering basic order entry and financial systems, DATX challenged the then dominant shared systems, claiming far better "price performance," and one of its many sales successes was to Norwegian American Hospital in Chicago in 1978.

Despite numerous sales successes and technological breakthroughs, DATX eventually failed financially. When DATX entered bankruptcy liquidation (Chapter VII) in 1980, Norwegian was only half way through its installation, committed both financially and operationally to the conversion, and knew from its vendor selection process that few other systems of that era were as truly integrated on one affordable minicomputer.

Norwegian was approached by a group of former DATX employees with a proposition: they would finish Norwegian's conversion if it would fund a successor company to DATX. The software license and miscellaneous hardware could be bought cheaply at DATX's bankruptcy auction, and these former DATX employees had years of HIS vendor experience, especially in the key areas of sales and marketing.

With few options to complete their installations, Norwegian's board approved the decision to form a wholly owned subsidiary,

ABOUT OUR AUTHOR

Vincent Ciotti is vice president of Sheldon I. Dorenfest & Assoc., Ltd., a consulting firm located in Northbrook, Ill. He has spoken at seminars and published articles on the topic of hospital information systems.

CIOTTI

Personal Aside

Two unforgettable vignettes from my days at Sentry, sitting in Gerry Mathys' office in Mt. Prospect, IL:

- Rummaging through the files and finding a "Disaster Plan," well-thought out and impeccably detailed, with:
  - What to do if a storm, fire or other disaster hit: moving CPUs, contacting employees, keeping service to clients, etc.
- Taking phone calls from numerous stock brokers about the fate of Sentry's stock, delisted from Nasdaq during Chapter XI, and with a face value now of but a few *cents* per share…
  - Especially one call from a broker about some poor, little old lady for whom he had invested *all* of her savings into this hot commodity…
  - What a lesson for today's wild ride on Wall Street – I've had my investments highly diversifies ever since!

Selling A Vendor *to* a Vendor

- A lot more challenging than selling a system to a hospital!

- But Shelly reminded me of Harvey Wilson or Art Randall at their finest – brilliant strategiser and always up-beat!

- And he knew so much about the business, and had all the facts to back up his story – hell, *I* even believed him!

- In fact, **Sentry's** Non-Stop Tandem & DDCs were such a hot commodity, and it was easy selling their potential.

- Who were the hot prospects? Shelly wisely solicited bids from other HIS vendors offering software on Tandem's popular Non-Stop boxes back then.

- One of the hot prospects being IDS (Interpretive Data Systems), later IDX, now part of GE, and whose "Centricity Enterprise" is still running on Tandem!

- I remember hosting CEO Rich Tarrant on his site visit to Mt. Prospect, IL – fascinating to hear his HIS plans...

And the Winner is:

- **Control Data Corporation** (CDC), founded by Seymour Cray in 1957, later of Cray Super-computer fame…

- Turns out **CDC** had a hot project going internally to develop software for Tandem boxes, and Sentry offered them a quick short-cut to getting all the HIS apps.

  – The DDC and 11 clients caught their eye too…

- Plus, being from nearby Minneapolis, they didn't mind the frozen Chicago winter weather…

- **CDC** bought **Sentry** for $1.5M down, and $2.75M in future payments based on performance.

- Not a bad deal for **NAH** and **Sentry's** employees!

CONTROL DATA

Lessons Learned?

- **NAH** and the other **Sentry** clients realized a reasonable life expectancy out of their Tandem-based product.

- Eventually CDC abandoned the HIS field, just as so many giant conglomerates before it that have tried a while:
  - Baxter, AHS, McDonnell-Douglas, Lockheed, HP, Amex…

- What can one take away from Sentry's HIS-story?
  - *Some* pilot hospitals win, but many don't – the odds are tough!
  - When visiting "flagships," ask about their financial incentives…
  - Vendors come and go – look at the *product* far more carefully!
  - New systems are risky, no matter how big or small the parent company is…
- Programmers mean well, but writing code for an industry as complex as healthcare is incredibly difficult!

Lessons Learned

Muchas Gracias!

- For input to this week's episode:

  – <u>Gerry Mathis</u> and <u>Rick Mager</u> – who came *so* close to getting the big "brass ring," and deserved it just as much as the lucky ones who did. Just a few timing issues and they'd be on some Caribbean island with Walt Huff... We all know the success stories, but we should remember just as well the incredibly bright, hard-working folks who came so darned close!

- And once again:

  – <u>Sheldon Dorenfest</u> – who not only saved **NAH** and **Sentry's** employees from disaster, but gave their 11 clients a new lease on life!

Help for Future Episodes!?

- The next episodes on turnkey minis to be covered are:
  - **AR/Mediquest** – Paul McVicker from Hannibal Hospital in Missouri sent some fascinating details on this early **IBM** mini player – anyone else got any stories about Jean's firm?
  - **JS Data** – Tom Aikens, now VP with maxIT, offered help
  - **Gerber-Alley** – thanks already to 3 ex-Gerber/Ally veterans, who woke me up to get Urban's name right (it's *not* "Irwin!")
    - Gary Lakin – now with MS in Australia hooked me up with G/A vets
    - Karen See, G/A Marketing maven promises embarrassing old photos…
    - Gary Salazar – now VP at Merge, who volunteered more connections.
  - Mr. HIStalk – that obscure blogger once again found amazing information on the web that even god couldn't…
    - Like Bill Brehm now own a restaurant in rural Alabama!
- Please send any contributions to: *vciott@hispros.com*

"H.I.S.-tory"
by Vince Ciotti

Episode # 22:

Gerber Alley, Part I
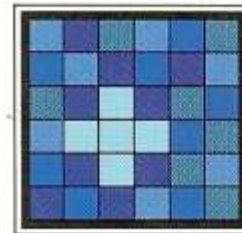
Background

- This one's so weird, it'll take *two* weeks; story starts at SMS in '75…
  - *Wait a minute: Urban & Terry formed Gerber Alley in 1979!*
- Trust me, it started when Bill Brehm joined SMS from AHS' ISD.
  - *Your out of your mind, but I'll listen anyway just for kicks.*
- Thanks, now here's the story: Bill Brehm headed up one of the 4 regional shared systems that formed American Hospital Supply's Information Services Division – I think his was Georgia Blue Cross…

- *Bill, are you out there? Help us on this!*
- Bill was a unique guy & sharp techie: bright, knowledgeable, yet a true southern gentleman.
- *That sure is a rare combination in the HIT world!*
- When he joined SMS, he had to attend my 2-week education class in SMS' version of SHAS.
- *Poor guy, how did he ever stay awake?*

High "Spirits"

- The **ISD** bunch was a rowdy crowd, as most like Bill were running pretty sophisticated shared systems, so what could I teach them?

- One session I'll never forget was on SMS' Payroll system

  - SHAS has no Payroll

  - So we wrote our own

  - And **ISD** had to learn it

  - As they had no PR either.

  - Surprisingly, they are all in pretty good spirits during the class,

  - Which frankly often bored me too even though I was teaching.

- I told some pretty sick jokes to keep us all awake, and the **ISD** crowd was laughing like crazy – *too* much laughter in my dull mind…

- After a while, they offered me a glass of water – odd, but I had been talking so much, I took a sip, and, *wow*, it was pure **vodka**!!!

- So much for my ego about my jokes and great presentations…

The "Beige Manuals"

- Any fellow oldies out there might remember SMS' *excellent* set of user manual, bound in handsome beige binders, my pride & joy!

  - (Remember, I *was* a frustrated English major at SMS…)

- They had chapters covering:
  - Sample reports, with distribution
  - Transaction by card code & column
  - Master file set-up instructions
  - Profile option & their implications
  - Even a controls & balancing section!

- Pictured on the right is Census
  - From my dusty garage shelf…
  - We gave them to the ISD gang, who they seemed impressed:
  - One of the few things SMS had done better than AHS!

Most Intoxicating Subject

- The ISD gang seemed most interested in Phil Jackson's class on:
  - <u>Four Phase Minis</u> – Phil headed up SMS' "ACTIon" team, formed when Harvey bought rights to Walt Huff's MedPro OE/RR.
  - The **ISD** crowd probably wished they had been bought by HBO rather than SMS, as the whole world was going turnkey minis...

- SMS actually had *two* variants of ACTion (thanks to ex-SMSer Mike Cassidy for these details):
- **ACTION 200, 400, and 600** - all of which were based on MedPro, ran on Four Phase minis; depending on hospital size, had ADT only or ADT + Order Entry + Results Reporting.
- **ACTION 1100 and 1500** – developed by SMS' programmers, which ran on DEC PDP-11 minis at first, later supplanted by VAX "maxi-minis."
- Bill Brehm seemed especially interest in *these* sessions (he barely hit the water pitchers…)

Exeunt Stage Right

- So the class ended and the ISD gang went back to their regions:
  - **Gerry Mathys** to the Midwest (later became president of Sentry Data)
  - **Craig Leathers & Art Harris** to SF (Art later joined AMI PHS' PatCom)
  - **Marv Cadwell** back to the east coast (in the late 90's became CEO of SMS!)
  - **Bill Brehm** back to his beloved south land (away from the damn Yankees!)
- SMS probably gained more from this infusion of brainpower than the scores of ISD hospital clients, who they soon converted!
- Circa 1979, Bill Brehm bolted SMS, teaming with some guy named **Urban Gerber** from Louisville, an equally smart & charming rebel.

- Urban had the vision of building a full *financial* system on a mini to compete/ complement HBO's MedPro *clinicals*…

- And Bill Brehm had the detailed design in all those beautiful beige manuals we gave him (at least that's the story I heard!?)

New Mini Entrant

- Urban had a predilection for a new hardware mini in HIS:
- **Hewlett Packard** – a monster firm in technology, famous for its engineering-centric world of cubicles only (*no* offices!)

  - Even for founders Messrs. Hewlett & Packard themselves…

- Their mini entrant was the HP 3000, new to healthcare, with:
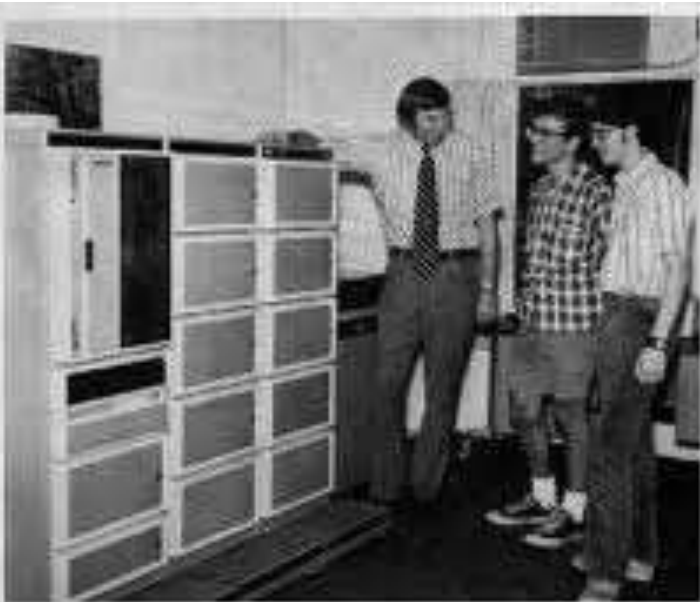
NEW COMPUTER—Dr. Bruce Keeper, director of the PAUSD Educational Technology Department, and two Palo Alto High School Students, Ian Yoch and Bob Link, admire the new Hewlett-Packard model 3000 computer, delivered November 29.

- 16-bit memory and CISC processor,
- HP's proprietary dbms called Image,
- And "MPE" Operating System.

  First Introduced in 1973, this amazing mini had a production run lasting *30 years,* before being phased out for HP's "e3000" in 2003.

- Support for HP 3000s was still being offered as of December, 2010!

Birth of "IFAS"

- **Gerber Brehm & Associates (GBA)** named their HIS:
  - Integrated Financial & Administrative System – **IFAS** for short.
  - It contained all the financial modules in SMS' beige manuals:
    - Patient Accounting – ADT, Billing, Account Receivable, Bad Debt…
    - General Accounting – AP, GL, PR, HR, MM ("ERP" to moderns…)
  - Being southern boys, they soon met Walt Huff of HBO circa 1982, who by then had moved from Peoria to "Hot-lanta."
  - As would be the case for the next few decades, HBO *bought* Gerber/Brehm (their version of "R&D"!) to round out MedPro,
  - Which lacked *precisely* the financial & admin apps in **IFAS**!
  - Now a hospital could buy a *total* HIS on (2) minis from HBO!
    - Allowing HBO to compete with DCC, DATX, JS Data, et al.
  - HBO sold **IFAS** to *hundreds* of hospitals, many with MedPro, displacing many SMS & McAuto shared financial clients.

Sound Familiar?

- Remember how Walt Huff left OSF with HFC for McAuto:
  - He moved from Peoria to St. Louis with Barrington & Owens, setting up HSD's huge shared system empire that battled SMS.
  - Ever the leading-edge pioneer, Walt joined Mac's "HDC" team, building an Order/Results system on a DEC/Four Phase combo
  - Walt, Bruce & Dick thought the Four Phase could do it *alone* without the added cost and complexity of a DEC "back-end."
  - So Walt left in one, formed HBO and proved it could be done!
- When Urban Gerber joined HBO, he wanted to keep developing on HP, but the HBO guys insisted on DG minis,
- Having started on "ClinStar," MedPro's successor, and had *no* interest in HP.
- So Urban left Walt in a huff *(oooh…)*

"Get Back in the Alley..."

- Urban left HBO along with Terry Alley, who had worked with him on IFAS at GBA.

- Terry was an equally bright & talented techie, and he and Urban took a year off to let their non-competes expire,

- Then started Gerber-Alley in a rented office with about 10 original employees, including

  - Terry's wife Michelle as keypuncher!

- *Stay tuned for Part II next week!*

GERBER ALLEY

"What do I need from a healthcare information system?

On-line, real-time, integrated information.

The kind Gerber Alley delivers."

When your CEO asks for a statistical summary of the occupancy rates, outpatient activity, pharmacy prescriptions and lab fees associated with a particular group of physicians, you've got to be ready to respond.

You will be if your healthcare information system is THE PRECISION ALTERNATIVE" from Gerber Alley. It's completely integrated. Fourth generation. And extremely powerful in its ability to retrieve and analyze information from a database that's as current as the last single entry. Regardless of the department it came from.

From an MIS viewpoint, no system can match the full functionality or report writing flexibility of THE PRECISION ALTERNATIVE. So you can promise your CEO the summary will be on his desk in the morning. Precisely when it's needed. Call Gerber Alley today for more details about the H.I.S. that's setting new standards in hospitals everywhere.

The Precision Alternative" integrates all administrative, financial and patient care records in one integrated database that gives you real-time, on-line access to the information you need, when you need it.

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Norcross, GA 30092-3325

Circle Reader Service No. 2

Integrating power with solutions.

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So Where Did Bill Brehm Go?

- I couldn't shake this guy! After selling GBA to HBO, Bill bought several shrimp boats in his beloved Louisiana, and left the HIS industry for a while, hooked on decidedly low-tech fishing…

- But after a few years, ho got bored, and joined **McAuto** in 1981;

- Here's the only shot I have of Bill, at a **McAuto** Managers' meeting:

- Recognize any of these other faces? They were the heart of **McAuto** (and *any* vendor!) the middle-managers who got "IT" done!

McAuto Middle-Manager Hall of Fame

- Here's the "who-who" of McAuto's field managers circa 1981:

  (Saving a picture is one thing, remembering names is another!)

Charlie Kean
Southeast Mgr

Jim Pesce
NE CSR Mgr

Joe Kessel
NE Sales

Larry Evans
SE Sales
Support Guru

Jud Foreman
SMS turncoat
like me, ran
West coast sales

Yours Truly
Ugly one of the bunch!

Stephanie Massengill
Still going strong today!

Joe Mason
Midwest Maven

Gary Veinhaus
(SP?) CSR heavy

John Sullivan
One of the
Mac originals!

Did I Finally Shake Bill Brehm?

- Not quite! In an upcoming episode of HIS-tory, I'll confess one of my most dastardly deeds: selling an HIS system that *didn't exist!*

- Where? Well, you've heard about "Selling the Brooklyn Bridge?"

- Well, I headed the sales team for a non-existing **IBM** mainframe system from Brooklyn…

- I left after 2 years, and guess who stepped in to fill my shoes?

- You guessed it: *Bill Brehm!*
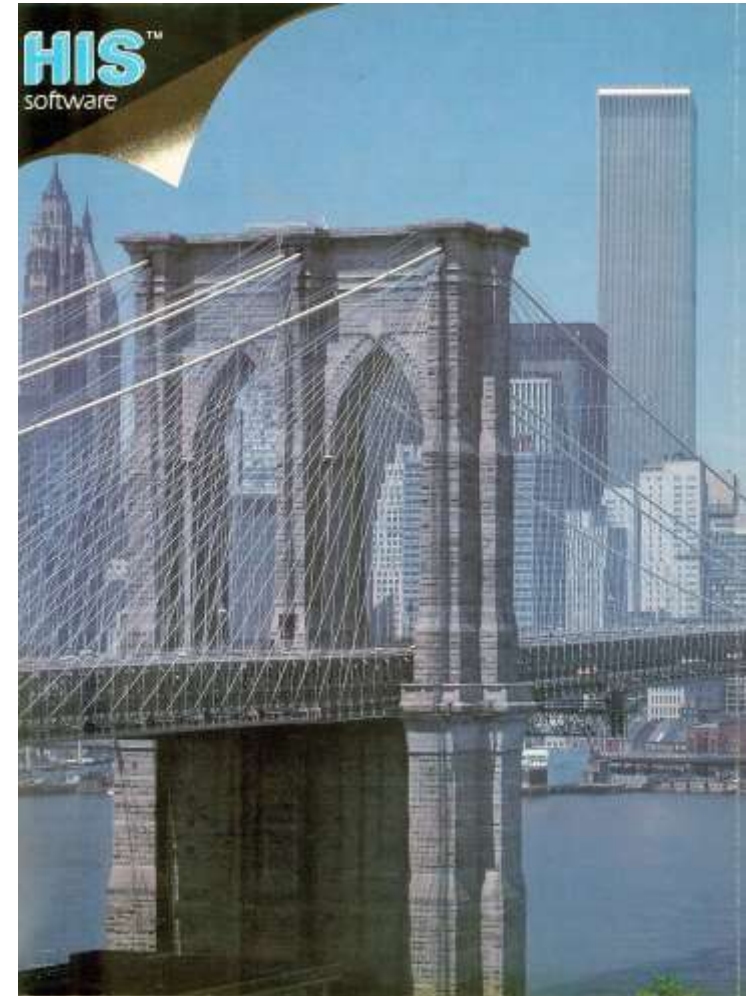
Thanks In Advance…

- Gerber Alley seems to be one of the closest knit bunch of veterans in HIS-tory, equal to SMS and Saint! Thanks to:
  - Mr. HIStalk who found a LinkedIn connection for them:
    - http://www.linkedin.com/groupsDirectory?itemaction=mclk&anetid=2784299&impid=&pgkey=anet_search_results&actpref=anetsrch_name&trk=anetsrch_name&goback=.gdr_1314098789592
- And many G-A veterans still in HIS who relayed the gory details:

  - **Karen See** – G-A's Marketing Director, who trusted me with precious *original* ads & brochures, now with Clarity Close

  - **Brian Robson** – sent emails and told stories with *tons* of details on early GBA and G-A days – now with HP.

  - **Karl Kiss** – 10th person hired by G-A in 1984, filled my ears with great stories – he's now Siemens' Southeast Regional VP

Help for Part II of Gerber-Alley!?

- Thanks again to the many G-A veterans who sent emails:
  - <u>Gary Lakin</u> – with MS in Australia hooked me up with G/A vets
  - <u>Gary Salazar</u> – VP at Merge, who volunteered more connections
  - <u>Mark Edelstein</u> – 10th employee in '84, now VP at Relay Health
  - <u>Brian Curnutt</u> – corrected my "Irwin" boo-boo into "Urban!"

- Only help that would be great is if anyone has *pictures* of Urban?
  - Have tons of shots of Mike Brown, later CEO, who was a photographer at heart (runs a camera shop now!), but poor Urban who built the whole thing and passed away much to early in 1984 remains jpeg/tiff anonymous…

- Please send any contributions to: *vciott@hispros.com*

"H.I.S.-tory"

by Vince Ciotti

Episode # 23a:

Gerber Alley, Part II
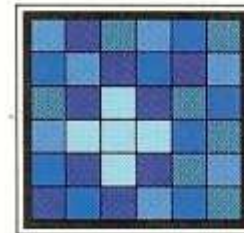
Background

- The Gerber Alley HIS-tory is so rich it is taking *3* episodes; this second part starts at Dorenfest & Associates in the late '70s…

  - ***Wait a minute:*** *Urban & Terry formed Gerber Alley in 1984!*

- Trust me, it started when Sheldon Dorenfest hired Betsy Hersher…

  - ***Your out of your mind,*** *Betsy Hersher!?… Ah well, go on.*

- Thanks, now here's the story: Betsy was one of Sheldon's hard-working interviewers, who regularly called his 250 clients to glean data for his original market research efforts (before the "3000")

- ***So?*** *What's this got to do with the price of eggs?*
- Betsy learned a lot from Shelly about the HIS biz, and left to form her recruiting firm around 1980.
- *I didn't know that – over 30 years ago?*
- When I left SMS for McAuto, I met Betsy as part of my recruiting efforts (eg: Larry Ferguson…)

What might have been…

- We became good friends, and Betsy found me several good jobs in the 1980s; one "might have been" interview leads to Gerber-Alley:

- In the mid-80s, she got me an interview at the Hewlett-Packard offices in Andover, Mass., where a fascinating Frenchman (named "Giles Merme?" – it's been a *long* time…) was interviewing for an exec to head up their US Healthcare operations – big opportunity!

- H-P was one of those techie firms where everyone has a cubicle, *no offices*, not even for Giles, the VP of their whole US mini division.

- Made for a weird interview, as anyone walking by could hear us chatting about the salary, benefits, etc.,

- And how Giles was interviewing outsiders like me to compete with inside candidates, like his VP of Sales, some guy named Mike Brown…

Caught in the act!

- So we're sitting in Giles' cube, and I'm lying about my background, when in walks a heavyset guy who sits down in the next cube and who Giles introduces me to - guess who? Mike Brown!

- Mike had been on a sales call, came back a bit early, and was all ears listening to the rest of my interview telling Giles about how I would make such a great exec, had been so successful, etc, etc.

Michael H. Brown is president and chief executive of Gerber Alley.

- After finishing with Giles, I then had to interview with Mike, since he was right there and had heard my story.

- Mike grilled me like a fine steak, uncovering every weakness I had (which were many!). Needless to say, he got the job, became VP of H-P's US healthcare ops, and later CEO of Gerber Alley when HP partnered…

Back to Urban & Terry

- So we last left Urban Gerber & Terry Alley when they started GA in 1983, after bolting from HBO, who had bought IFAS from them.

- **Brian Robson** remembers the first 11 employees *by name & title:*
  - " Urban – CEO - Founder of GBA/IFAS, originally from McAuto in early years
  - Terry Alley - VP R&D/CTO (co-founder) - worked at GBA and then HBO
  - Alan Cooper - VP Sales (came from HBO)
  - Dan Jesson - VP Implement/Client Services (had worked at GBA and HBO)
  - Michelle Alley (Terry's wife) – nice lady and quite competent.
  - Patti Burnette - came from HBO/IFAS team
  - Brian Robson - hired by Terry at HBO in April 1982 (was 25 w/ 3-4 yrs exp)
  - Bill ??? - brain lapse on last name... Sharp programmer with no healthcare, he ended up leaving within 1-2 yrs
  - Bonnie Wynn – no previous healthcare experience.. knew Michelle
  - Pete Clarke - hired and no previous healthcare experience"

- *What a memory, Brian! Remember, this was 30 years ago...*

The Early Years

- Again from Brian's amazingly indefatigable memory:
  - "Terry had left HBO in August 1982 - hence, Gerber Alley formally started on August 1, 1983 after their 1 year non-compete agreement expired
  - Urban left HBO before Terry and convinced Terry to join him in founding Gerber Alley & Associates (original company name)
  - Urban & Terry used the proceeds from the sale of Gerber Brehm & Associates to HBO for IFAS to fund the roughly $1M they jointly put up to start Gerber Alley
  - Will always remember Terry's shiny Corvette 'Indianapolis 500 Pace Car' that he drove every day to our new office digs in Norcross, GA…"

Early Years, cont'd

- *Brian could probably write a whole HIS-tory book an G-A alone!*
  - "Terry provided the technical architecture vision:
    - Using 4GL tools to make it easy for clients to get to & use **their** data
    - COGNOS tools Powerhouse suite - Quick, Quiz, QTP with Data Dictionary
  - Bill ?? was the only programmer experienced with the toolset...
    - Other 5 programmers learned from a COGNOS trainer we brought in
  - Followed up training by designing and developing a Project Control System that we ended up using through FDC days
  - All programmers were made Project Lead for 2-3 modules
    - Most modules had 2 programmers assigned
    - Tiny modules (i.e. Bad Debt) had only a lead
    - Large ones (i.e. Census) had 3 programmers
  - Terry established design "methodology" based on the "Warnier Ohr" method

Sample of a Data Structure on a Warnier-Orr Diagram

File Header

Customer File

Customer Account Number

Customer Name — Street

Customer Address — City

File Body — Customer Record (1,N)

Customer Credit Rating — State/Province

ZipPostal Code
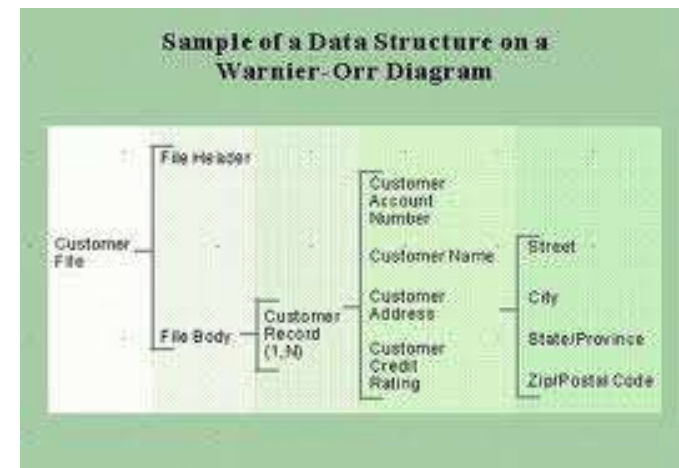
TGIF!

- More from Brian:

  – "Terry & Urban had spent the 1st "quiet" year (1983) designing the company and developing a "conceptual model" of the system involving text file docs with Screen & Report "mock-ups" and some general bullet points on functionality

  – We consistently celebrated milestones at our "Mandatory Friday Meetings" with beer, wine and Jack Daniels for Urban...

  - **Alan Cooper** VP of Super-Sales (sadly RIP) sold 3 customers within the 1st year, while product was still "in development" - talk about vaporware... But demonstrates the level of trust and relationship Urban inspired:
    #1 Spohn Memorial (Corpus Christi, TX)
    #2 Pekin Memorial (Peoria, IL)
    #3 NW Texas Hosp (Amarillo, TX)"

More of Brian's Total Recall:

- "Over 95% of system was developed using Powerhouse 4GL tools: screen & report generators, batch TP based off Data Dictionary…
- Intense programs like Charge Posting, Insurance Proration and message queue utilities were in COBOL or assembler:
    - Where performance was critical…
    - Leading edge technology at the time for sure…
    - Cognos and the Powerhouse toolset was initially a Canadian company named Quasar (Ottawa I recall)…
    - Well before they began to focus on reporting/analytics tools…
    - All were very easy to use and quickly created "prototypes."

PowerHouse

First Installations

- (I'm sure this guy forgot **something** about G-A!?):
  - "We designed, developed and implemented initial core modules in 11 months.. A pretty amazing feat in my opinion.
  - *(Mine too, Brian, mine too…)*
  - Included: ADT & Financial apps with modules for:
    - Census, Patient History, Billing, Revenue Control, 3rd Party billing, AR, Bad Debt, GL, AP, Inventory, Fixed Assets… I'm forgetting 1 or 2….
    - *(I doubt it Brian, I doubt it…)*

- Bottom line is Spohn Hospital was the first "Live" on all initial core applications in about 11 months.
- Pekin Memorial Hospital in Illinois followed 3 about months later.
- Northwest Texas Hospital a couple of months after that.

Early Success & Rapid Growth!

- Brian's display of total recall of early G-A days continues:

  - Jim Bodenbender (now leader at Relay Health) was first "installer" hired by Dan Jesson – Project Mgr for NW Texas.

  - Fred Leezer (sp?) was hired (previously from GBA & HBO) as installer and Project Leader for Spohn

  - Mark Edelstein (also at Relay Health) - hired from SMS for Patient Care apps (Order Entry & Results Reporting)… he had been install Project Leader for Pekin Memorial

- Company Christmas parties grew from - 25 (≈15 employees plus spouses) at the first party in 1983,

  - to 43 (25-30 employees) in 1984,

  - to ≈75 in 1985,

  - to over 125 in 1986!

Amazing Revenue Growth

- Karen See (former GA Director of Marketing) dug into her treasure trove of GA archives to share these gems.

- At right are financial growth charts from GA's 1990 Annual Report.

- *What a ride!!*

SELECTED FINANCIAL DATA
YEARS ENDED DECEMBER 31
(Millions except percentages and employees)

	1990	1989	1988	1987	1986
Revenue	$67.9	$41.4	$27.3	$15.6	$12.3
Net Income	4.4	3.6	2.7	1.2	0.7
Net Income %	6.5%	8.7%	9.9%	7.7%	5.7%
Employees	636	366	241	162	102
Total Assets	$56.4	$29.6	$15.9	$ 9.5	$ 4.8
Working Capital	9.3	9.0	6.1	3.0	1.9
Long-Term Debt	5.5	1.2	.5	.1	1.0
Stockholders Equity	22.8	14.3	8.6	4.8	1.9

Revenue
($ Millions)

Assets
($ Millions)

Stockholders' Equity & Long-Term Debt *($ Millions)*
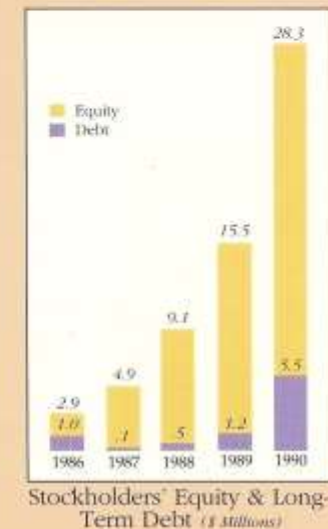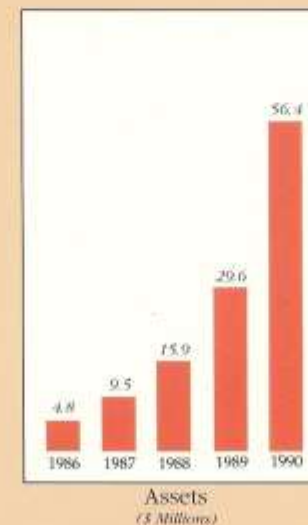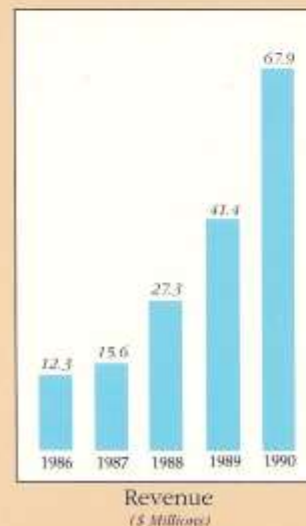
Stay Tuned!

- For Part III of Gerber Alley next week!
  - *What? Another episode on GA?*
  - Don't blame me, blame all those GA alumni!
  - *It's **their** fault you can't tell a short story?*
  - No, they just have so many wonderful memories to share…
  - *All right, but next week better be good…*
- Still hoping for any pictures of Urban!?

Please send contributions to: *vciott@hispros.com*

"H.I.S.-tory"
by Vince Ciotti

Episode # 23b:

Gerber Alley, Part III

The Precision Alternative™ integrates all administrative, financial and patient care records in one integrated database that gives you real-time, on-line access to the information you need, when you need it. The Precision Alternative™ runs on the HP 3000-Series 900.

hp HEWLETT PACKARD — COMPUTER PRODUCTS / VALUE-ADDED RESELLER

For more information on The Precision Alternative™ contact Ellen Williams (404) 441-7793
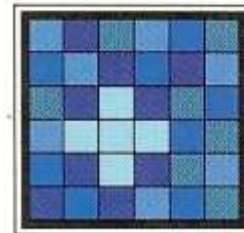
GERBER ALLEY

6575 The Corners Parkway
Norcross, GA 30092-3325

Integrating power with solutions.

David helping Goliath!?

- For these first 3 deals, G-A rode HP's coattails as the HP 3000 gave them an "alternative" ("Precision" one to be exact…) to the many IBM mini systems from DCC, JS Data, First Coast, AR Mediquest…

- The fourth deal was a real whopper for upstart G-A:

  - *Hewlett-Packard themselves!*

- It seems the HP team in Andover learned that software was driving most of their HIS sales, so they "partnered" with G-A

- (also since HBO had turn-coated to DG minis for their "Star" successor to IFAS' HP-3000)

We know that each healthcare provider has specific clinical and business management requirements. That's why we work with select software vendors to combine our expertise in hardware with their experience in software to tailor a system solution that's right for you.

So no matter what healthcare information system you're thinking of, think of Hewlett-Packard. Then call your local HP Healthcare System Representative. And experience the difference experience can make.

HEWLETT PACKARD

INFO/CARD 6

Big Brother…

- The deal gave **HP** the right to market GA's "The Precision Alternative," very like SMS getting rights to sell HBO's Med-Pro in '75 for their early "ACTIon" Four-Phase mini-based system.

- Brian Robson got the job of working with big brother in Mass:
  - "I was liason to HP for about a year to help bring them up to speed.
  - Kinda funny since we were a company of around 25 employees at the time, and HP's Healthcare group had about a 100 people…
  - They sold some hospitals, but nothing like GA did…
  - A few of their good folks ended up coming to GA later."

- Among them, Mike Brown, who came to GA in 1985 and took over as CEO, taking care of the business end so Terry could concentrate on R & D

- As we mentioned earlier, poor Urban Gerber passed away in 1984, too early to garner all the accolades he deserves as the "father" of GA…

Terry Alley and Mike Brown, Chairman and CEO respectively, share their thoughts on the management vision and new initiative that is guiding Gerber Alley and its clients toward the 21st century.

Big News in 80's HIS Circles…

- As the 2-page ad spread below shows, the G-A & H-P alliance made a big splash in HIT circles in the 1980s
  - Rivaling IBM's partnership with Baxter that had given birth to IBAX
- G-A was able to keep growing its *single* TPA product line much faster than IBAX, adding some real shockers in the late 80s, like:
  - Physician's Division – not just 1500s, but *clinical* decision support!
  - International Division – like SMS' early forays into Japan back then…

Now, two great names in H.I.S. hardwarive the greatest name in H.I.S. software.

DIGITAL

HEWLETT-PACKARD

Gerber Alley and Digital.
Gerber Alley and Hewlett-Packard.
Either direction – you're on the right road to powerful information.
Gerber Alley is helping hospitals go places fast with integrated solutions for optimum performance.
Call Ellen Williams, Director of Sales Support, today for more information.
1-800-445-9266 or 1-404-441-7793 extension 458.

Circle Reader Service No. 6

GERBER ALLEY
Integrating Power with Solutions.

Another Daring GA Move!

- This from another GA alumnus: Karl Kiss, VP at Siemens.

- Seems one of the many hot sales prospects for TPA was Anaheim Memorial Hospital in California.

  – As we explained in an earlier episode, hospitals in those days were "IBM shops" or "DEC shops," etc., as the OS and DB systems were totally proprietary. No "open" Linux back then!

- Anaheim was a DEC shop and insisted on a DEC platform, and to keep up their sales & hot ride on Wall Street, GA made the huge decision to offer TPA on DEC too!

- In truth, not a bad perspective from a *marketing* standpoint, as hundreds of hospitals were "DEC shops" with McAuto's I.H.S, SMS' ACTIon 1000 series, etc.

PDP-11
resource
timesharing
system
RSTS-II

the system... RSTS-II
the software... BASIC-PLUS

HIS Market in the late 80s

- To give some idea of how **G-A**, **H-P** and **DEC** ranked in these red-hot mini days, here's fascinating stats from a dusty old copy of Sheldon Dorenfest 1987 "Guide" based on his survey of 3,000 hospitals >100 beds:

Hardware	# of Sites
IBM	1,358
D G	176
DEC	**153**
H-P	**130**
NCR	124
Saint	100
Burroughs	96
Microdata	45

Software	Annual Revenue	Software (continued)	Annual Revenue
SMS	$365M	PHS	$27M
McAuto	$165M	CHC	$25M
HBO	$165M	IHC	$20M
Baxter	$145M	Sunquest	$20M
TDS	$40M	Compucare	$18M
Cerner	$34M	**Gerber-Alley**	**$16M**
SAI	$32M	Ferranti	$15M
Meditech	$32M	HDS	$12M

Workaholism!

- This from David Wellons, a well-travelled HIS veteran:
  - "My G-A story - I have worked for many HIS firms since 1984, so I know/heard of a lot of these folk. I'm really enjoying your series - but it's starting to make me feel old! *(Welcome to the club!)* Flying home to ATL one evening - I'm guessing early '90s - sitting next to a nice looking G-A sales person. When I found out where she worked, I asked if she were heading home. She said, 'No, I live in Boston, but I have a proposal due and they won't let us work on them during the week. I'm meeting the proposal team in ATL for an all-weekend session so I can fly home Sunday night to be back at work Monday.'

    - I'd heard they really drove their team hard, perhaps more so than similar firms. Proposal teams worked the weekends in support of the sales execs that flew in…"

Denouement…

- By 1992, G-A had grown to over $90M in revenue and 900+ employees, but the bubble finally burst…

- Many people blame other people and various things for a firm's demise, but looking at HIS-tory overall, it just doesn't pay to go into a "who shot John…" - *all* vendors rise and fall on their own individual roller coasters…

- The point is, vendors can and do fail as quickly as they rise, something every hospital should always keep in mind (as we've said, buy the *product*, not the firm!)

- **G-A** ended up being bought by **FDC**,

  formerly **AMEX** who had started with **Saint**,

  then bought **McAuto's HSD**, adding **G-A**,

- Only to be bought out themselves by HBOC…

GA's Legacy

- An amazing ending anecdote from Karl Kiss:
  - HBOC supported GA's TPA for many years, just as they did **Saint**, **McAuto**, etc, slowly selling the client base on one of the many other HBOC products like Star.

- Incredibly, parts of TPA still run ***today*** at Gwinnett Medical Center in Georgia!
- Credit to HBOC (now McKesson) for giving them such a long lease on TPA's life…
- Which has been rewarded by Gwinnett being one of the pilot sites for McKesson's new Horizon Enterprise Resource Management (HERM), successor to Medipac/Healthquest (another HIS-tory future episode!)

Final Image…

- A classic from **Karen See**:

- She wanted to capture the admirable spirit of G-A folks working late into the night…

- So she caught this image at dusk for G-A's 1990 annual report, taken when most other vendor's staff had long left their HQ offices for home

- (cause of many internal nasty-grams like Neal's at Cerner!)

- A fitting final image to the wonderful G-A HIS-tory!
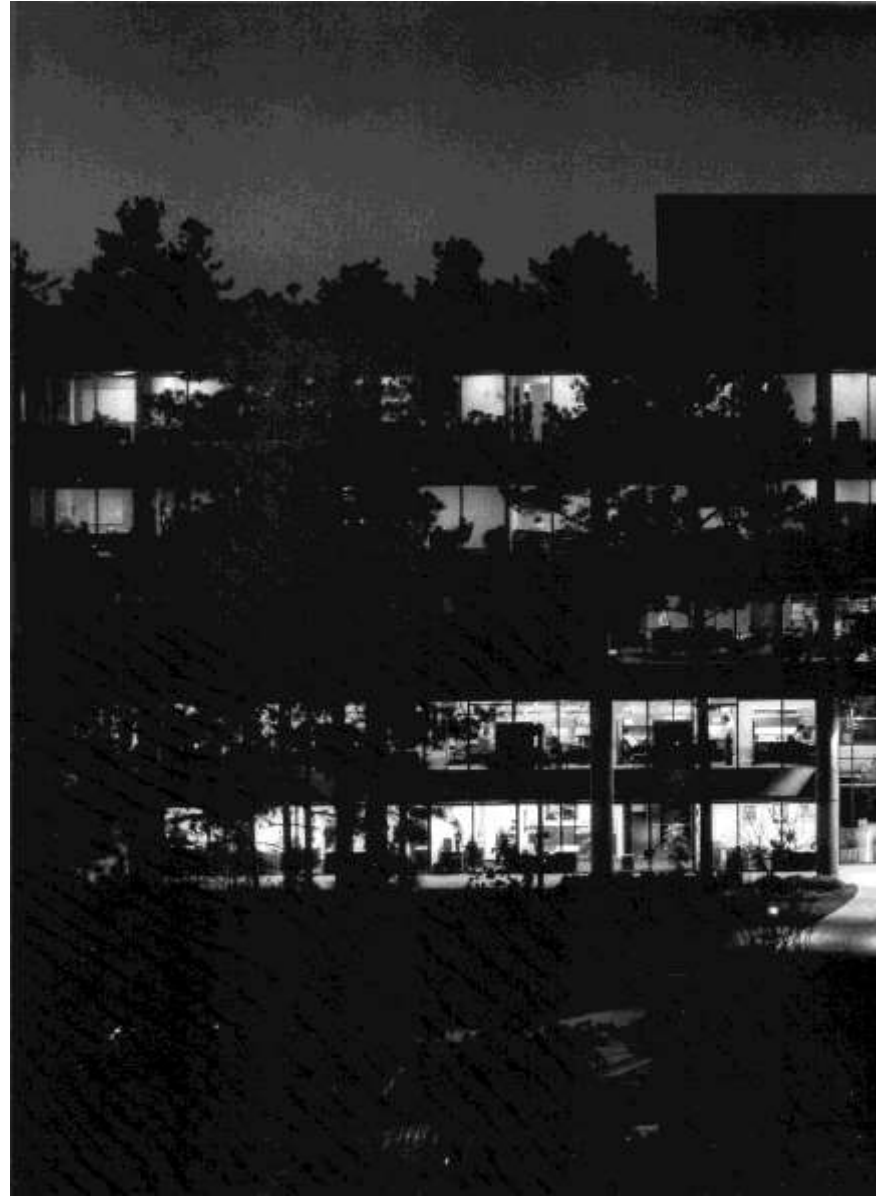
Thanks for help on Gerber-Alley!

- Thanks again to the many G-A veterans who contributed:
  - **Brian Robson** – whose emails told stories with *tons* of details on early GBA and G-A days – the bulk of this episode! Brian's now with HP – *how ironic!!*
  - **Karen See** – G-A's Marketing Director, who trusted me with precious *original* ads & brochures, now with Clarity Close, her own vendor consulting firm.
  - **Karl Kiss** – 10th person hired by G-A in 1984, filled my ears with great stories – he's now Siemens' Southeast Regional VP – bet he tried to sell Gwinnett!
  - **Gary Lakin** – with Microsoft in Australia hooked me up with G/A vets
  - **David Salazar** – now VP at Merge, not "Gary" per my Part I episode – sorry!
  - **Mark Edelstein** – 10th employee in '84, now VP at Relay Health
  - **Brian Curnutt** – corrected my "Irwin" boo-boo into "Urban!"
  - **David Wellons** – relayed the weekend proposal story…

- Thanks also to many others who have sent in encouraging emails on their HIS experiences. Keep those cards & letters coming in!

- Please send any contributions to: *vciott@hispros.com*

"H.I.S.-tory"

by Vince Ciotti

Episode # 24a:

Intermountain Health Care (IHC)'s "Med/38" Part I

IHC

Intermountain Healthcare

- Background

  - **IHC** was formed in 1975 when the Church of the Latter Day *Saints* (no HIS pun intended) divested itself of 15 hospitals in Utah, turning them over to this not-for-profit multi system.

  - **IHC** had a long history of computerization it inherited from the Mormon Church's centralized service bureau known as **MDC** (Management System Corporation) in Salt Lake City. **MDC** offered primarily financial systems (like SMS & McAuto then), so 2 years after IHC was formed, circa 1977, it charged its DP department to build its own modern HIS system *with clinicals*.

  - (we'll see in a future HIS-tory episode how another hospital chain out west followed this same entrepreneurial path: American Medical International {AMI} and their PHS division)

HIS-tory Hero

- **Larry Grandia**

  - The man in charge of IHC's DP department, later named as Affiliated Services Inc. (ASI), is a household word in HIS circles. His biography alone could be a mini HIS-tory in itself!

  - He is pictured below when he was appointed president of DAOU Systems Inc., before becoming president of Premier Inc.

- He is probably most famous for the **HELP** system (**H**ealth **E**valuation through **L**ogical **P**rocessing) at IHC, an integrated, patient-centered, rules-based clinical information system that was *decades* before its time.

  - Earning him the 1995 Davies Award

- To keep this episode under 100 slides, however, we'll concentrate on IHC…
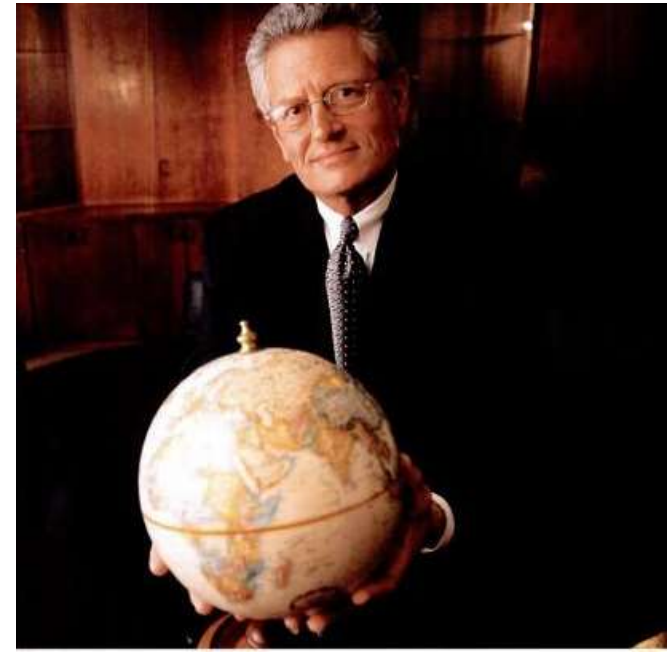
What Mini to Build On!?

- It was an easy decision back in those days of IBM's dominance of the hardware market, as attested by this chart from SIDA's Guide:

- ASI jumped on the Big Blue bandwagon, who had just introduced their System 38 minicomputer circa 1978, successor to the Systems 34 and 36 that IHC started on.

- Way back in 1959 *(were many of you even born that long ago? – I was 14!)*, IBM introduced a programming language called RPG – for "Report Program Generator"

- Back in those keypunch card days, the purpose of data processing *programs* was to *generate* a *report* from the stacks of cards/data – hence the creative name…

Hardware Vendor Annual Revenue

Legend: 1986, 1985

(X-axis: IBM, DEC, DG, UNISYS, NCR, HP, HONEY, TANDEM)
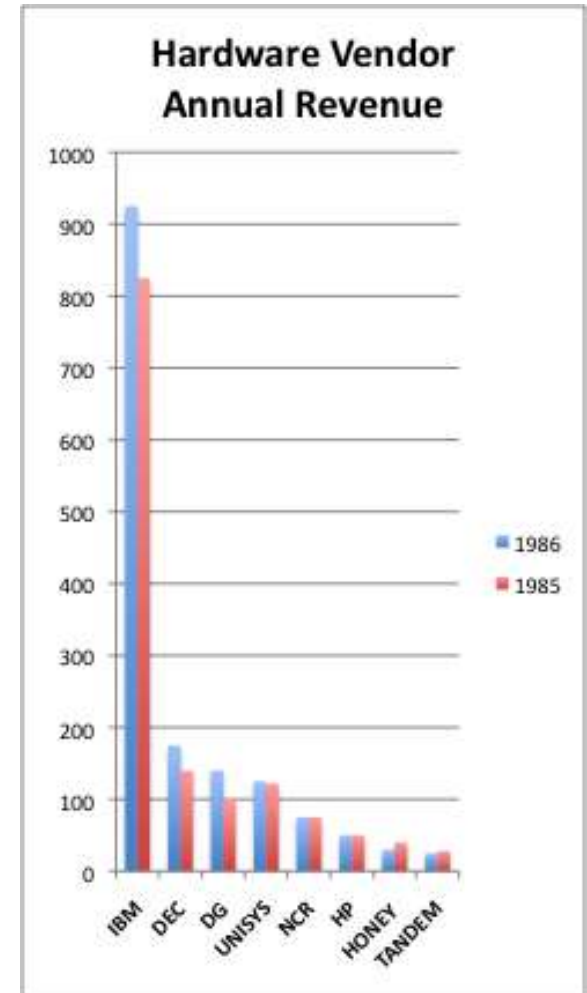
Etymology of a Language

- The original RPG was indeed used with keypunch card systems, and early IBM mainframes like the 1401 series.

- RPG II was introduced with IBM first minicomputer – the System/3, which evolved into the System/32 and System/36.

- ASI jumped on the third generation or RPG III, written expressly for IBM's System 38 mini.

- Later versions, such as RPG/400 were written for the AS/400 successor to the System/38.

- Don't mock this ancient code – as you'll see, **hundreds** of US hospitals are still running HIS systems that use it to this day!

```
Columns . . . :     6 100
SEU==>
FMT D    DName+++++++++++ETDsFrom+++To/L+++IDc.
         *************** Beginning of data ****
001.00 D field              S               24
002.00 D i                  S                2  0
003.00   /Free
004.00   field = 'To The Galaxy and Beyond';
005.00   for i = %len (field) downto 1;
006.00    dsply ('Letter is not blank:' +
006.01              %subst(field:i:1));
007.00    if %subst(field: i: 1) = ' ';
008.00     leave;
009.00    endif;
010.00   endfor;
011.00
012.00   *inlr = *on;
         ***************** End of data ********
```

A Maxi Mini!

- And what about the box? ASI picked a winner in the Sysem/38, which was also the preferred platform for a number of HIS competitors, such as Dynamic Control Corporation (DCC), covered in an earlier HIS-tory episode.

- The System/38 offered several breakthroughs:
  - New semiconductor technology
  - Built-in relational data base

- It morphed in later days into:
  - AS/400
  - pSeries
  - iSeries
  - System i
  - IBM Power Series
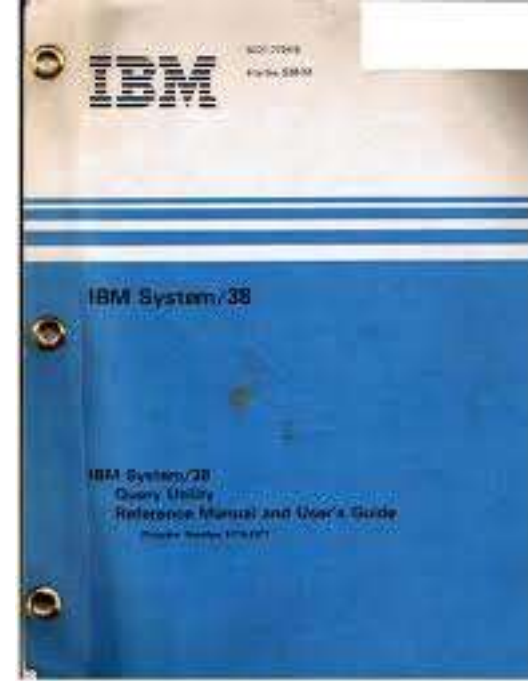
Birth of "Med/38"

- So under Grandia's guidance, ASI built its own HIS using RPG code and running on System/38s, called creatively **Med/38.**

- ASI re-wrote financial apps first, completing the design and implementation in an amazingly short time:
  - By 1981, *17* IHC hospitals had been converted
  - AR days *declined* by 3 days, a rarity in HIS circles!
  - Costs were *reduced* from the old service bureau
  - New apps were added: Inventory and Fixed Assets

- Next came clinicals, which in those days were primarily Orders & Results, although ASI pushed the envelope with:
  - Pharmacy Information System (what acronym can one *safely* use for RX?)
  - Medical Records – including MPI, abstracting & chart completion
  - Case Mix and even Nurse Staffing – *very* daring apps for the early 1980s!

Early Sales Successes

- ASI was IHC's only "for-profit" entity, and it sure showed it knew the not-so-subtle difference!

- Within 3 years, 70 hospitals bought and implemented Med/38, including the sale to two other multis eager to emulate IHC's success.
  - Check the right to see how IHC ranked in 1987, per Dorenfest's "3000" data base of hospitals >100 beds

- In addition, ASI sold the System/38 minis as an **IBM** Value Added Remarketer (VAR), earning a handsome royalty on hardware sales.
  - *(something Meditech hasn't learned in its 40 years of success – how many millions {billions by now?} for hardware have they given to JJ Wild, Perot, and Dell?)*
  - *(and Epic – how many hundreds of millions in hardware revenue have they passed up - odd…)*

IBM-based HIS Vendor	# of Sites
Baxter	312
IBM	122
HBO	106
IHC	**73**
SMS	70
TDS	38
LeBlanc	14
HCS	11
AR/Mediquest	10

A Later Leader…

- Larry Grandia moved on the other successes, and the next leader of ASI in the late 80s was **Scott Holbrook**, with roots back to:
  - **IBM** (surprised?) and **McAuto** *(another one! Wonder how many HIS-tory heroes have not had prior experience at **McAuto**? Try Walt Huff of HBO, Bill Brehm of IFAS, Ray Paris of Keane…)*
- Scott originally joined IHC way back in 1977, so experienced the whole creation of Med/38 and its amazing sales spurt in the 80s.
- Some tidbits from Scott in a 1987 interview:
  - Programmed in native RPG III for the Sys/38
  - System/38s ranged in size from 4 to 32 Megs
  - Disk drive space ran from 387 Meg to 14 Gig
  - Client base eventually included 14 multis
  - Client base ranged from 84 to 520 beds
  - 40 were in CA, and growth ran 25% per year

Scott Holbrook

Sound Familiar?

- Scott Holbrook's name should ring a bell, as his career is almost as amazing as Larry Grandia's:
  - VP of Sales & Marketing for **Sunquest**, one of the earliest and most successful mini-based LIS firms
  - EVP at **Park City Solutions**, specializing in laboratory orders & results to physician offices
  - EVP and Co-founder of **KLAS** – KLAS? I swear I've heard that name before, wonder what they do...
  - Board member of **HIMSS** – ever heard of them?
  - EVP at **Medicity**, a leading HIE that bought Park City
- And it all started with a BS in *Zoology* from Brigham Young University *(a propos for HIS...)*

What's Next?

- In Part II of IHC and Med/38, we'll trace a series of acquisitions that lead through several giant companies, ending up with an amazingly large client base *today.*
  - Meanwhile, I'm wrapping up with the last few mini stories before starting microcomputers, so anybody got some poop on:
    - **<u>AR Mediquest</u>** – an IBM Sys/36 system that Paul McVicker (paul.mcvicker@hrhonline.org) shared some fascinating tidbits on from his experiences at Ozarks Medical Center.
    - **<u>JS Data</u>** – small hospital system that Steve Kilgus (SKilguss@emdeon.com) and Tom Aikens (tom.aikens@maxithc.com) have commented with.
  - Anyone other major minis we're missing??
- Please send any contributions to: *vciott@hispros.com*

"H.I.S.-tory"
by Vince Ciotti

Episode # 24b:

Intermountain Health Care (IHC)'s "Med/38" - Part II

IHC's Management Team, 1987

Gaye Prewitt
Client Support

Jan Michel
Installations

Cory Hall
Director of Planning

Robert Walker
President

Kent Gale
Sales & Marketing

Scott Holbrook
Vice President

Rex Maughan
Development
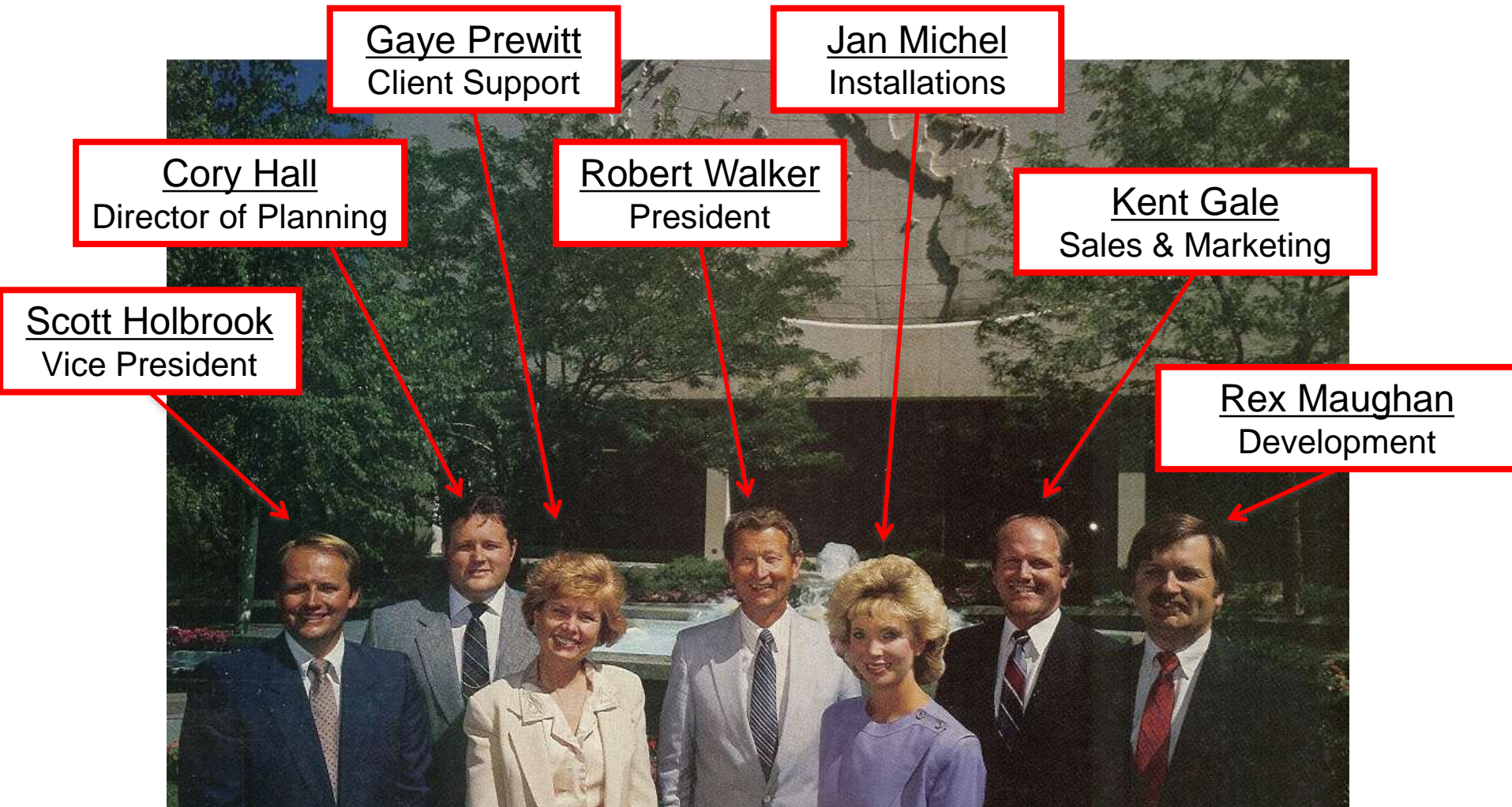
IHC Recap

- We left off last week with IHC selling more **Med/38s** than Carter has little liver pills!
  - *(Anyone old enough to remember that line?)*

- In a 1987 interview, CEO Scott Holbrook dropped some impressive **Med/38** tidbits:
  - Programmed in native RPG III for the Sys/38
  - System/38s ranged in size from 4 to 32 Megs
  - Disk drive space ran from 387 Meg to 14 Gig
  - Client base eventually included 14 multis
  - Client size ranged from 84 to 520 beds
  - 40 were in CA, and growth ran 25% per year
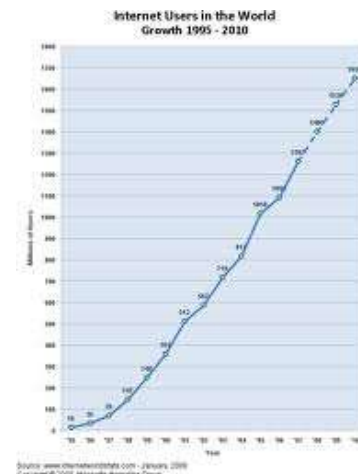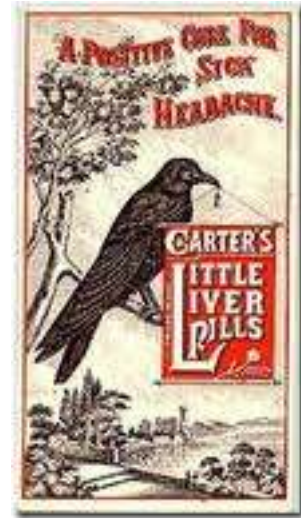
Gee...

- Less than a year after those impressive tidbits were dropped in a PR interview about how successful Med/38 had become, IHC's president Scott Parker sold ASI in October, 1988 for $10M:
    - "We decided last year to re-focus our organization's efforts on providing health care services in the Intermountain region, so we began to look for a buyer for the software programs," IHC president Scott S. Parker said.

- And who did they sell it to? Gee..., **GTE**!

  So what's **GTE** got to do with Healthcare?

  Well, about as much as:
    - **Revlon**, who bought TDS (hardly a *cosmetic* change!)
    - **American Express**, who bought SAI, McAuto & G-A
    - **Lockheed** who first developed MIS at El Camino
    - **AllTell** who bought TDS a few years after Lockheed
    - **Ashland Oil, Bell Atlantic, Martin-Marrietta, Dupont...**
    - Ah well, you get the picture!

General Telephone Equipment GTE

- With a history going back to 1935 and **≈$28B** in revenue, **GTE** was a powerhouse name in corporate circles, and their takeover of Med/38 promised major improvements from deep R&D pockets.

- So what's the first thing GTE did to this wonderful product?

- Why the same thing as:
  - **Baxter**, when they bought DCC
  - **McAuto**, when they bought MSA
  - **SMS,** when buying Computer Synergy
  - **Technicon,** when they bought MIS
  - **HBOC,** when they bought Mediflex
  - **GE,** when they bought IDX…

- Surely you'd pay more for a product with a ***new name***,
  - It's just *got* to be better than that tired old system…

Sounds *Better*, Doesn't it?

- To be fair, there was some real R&D with some of these name changes (eg: IDX's LastWord to CareCast), but not always!

1st Owner	1st Name	2nd Owner	2nd Name	3rd Owner	3rd Name	4th Owner	4th Name
DCC	HPMS	Baxter	Delta	IBAX	Series 4000	HBOC	Series
MSA	MSA	McAuto	MHS	A4	?		
Computer Synergy	?	SMS	Spirit Choice	SMS	Allegra		
Lockheed	MIS	Techni-con	MIS	AllTell	TDS 7000	Eclipsys	E7000
Medicus	MediPac	Mediflex	Medipac	HBO	Health-quest	McKess-on	HERM
Phamis	Last-Word	IDS	Last-Word	IDX	CareCast	GE	Centricity
AMI's PHS	PatCom	Kea-Med	PatCom	Keane	EZ-Access	Keane	Optimum

MedSeries4!

- Wow, now that's a better product, eeerr.., I mean, *name!*

- In fact, **GTE** has also acquired a bunch of other products in case you can't read the fine print in the ad on the right from 1990:
  - MedSeries4 – their renamed Med/38
  - EMC*Express – an EDI clearinghouse
  - Collect*Express – early e-payments
  - Q/Care – for HMOs & PPOS
  - PDMS – RX Data Management Service

- So off **GTE** went selling more hospitals with their billion-dollar size, high-tech expertise, etc.,

- For a few years until…

To paint a good financial picture, you need a variety of soft ware

A good financial picture depends on complete and accurate billing, timely collection procedures and efficient operation in all departments. GTE Health Systems provides a variety of software and networking solutions for the healthcare industry. These include:

MedSeries4, a comprehensive hospital information system, with patient management/accounting, financial, clinical and administrative software packages.

EMC*Express, a clearinghouse for electronic medical claims, used by hospitals, clinics, physicians, dentists and other healthcare facilities.

Collect*Express, an electronic system that provides faster payment to you and a higher percentage of collections at a very low cost.

Q/Care, a managed health software package for HMOs and PPOs with memberships of 25,000 or more.

PDMS (Prescription Drug Management Service), a pharmacy claim administration system which serves the needs of managed care and traditional indemnity insurance claims processors, with links to point-of-sale devices in retail pharmacies.

To brush up on what's available, call us at 1-800-334-7358.

GTE Health Systems

Circle Reader Service No. 2

Going once, going twice… Sold!

- ***Again***, this time to **SMS**, whose shared $s slipped a bit in the early 90s, making them eager to get back on track in the hot world of turnkey minis. They bought several leading mini-based firms:
  - Computer Synergy, a DG-based mini winner, in the mid-80s,
  - Then MedSeries4, which to SMS' credit, it did *not* re-name!!
- Instead, **SMS** really put some honest R&D into MedSeries4, which by then had over 300 installs.
  - E.G.: "WebConnect" a physician portal that makes the stogy old RPG code look positively modern!
  - Plus many more *clinical* apps:
    - Med Reconciliation
    - Allergy Management…

The Preferred Community Hospital Solution

Robust functionality and ease of use have made MedSeries4 the HIS of choice for more than 400 healthcare organizations, including major healthcare chains, throughout North America. Its flexible system design can be adapted to meet your needs whether you are a single-facility community hospital with as few as 20 beds or a multi-entity enterprise with more than 1,000 beds. With an average implementation time of six to nine months, MedSeries4 helps you realize a quick return on investment. And because MedSeries4 utilizes an easy-to-use, intuitive design, it helps reduce costs associated with education, management, service, and support.

Med/38 Today?

- Lives on happily under **Siemens** tutelage as <u>MedSeries4</u>:
  - ≈400 total clients, ranging in bed size from:
    - 27 Critical Access Hospitals (<25 beds) to 8 over 400 beds!
  - "Vision" users group meets annually
    - In 2009 in Salt Lake City, Utah, birthplace of **Med/38**!
  - Hardware platform is IBM's "Power Server"
    - Successor to the original System/38
  - Operating System is "IBM i V6.1"
    - (whatever that means…)
  - Data Base is IBM's "DB2"
    - As "Open" as most…
  - Programming Language is still RPG
    - Augmented by Java, Power Serve, and C++

What's Next?

- Here's some ideas from recent emails:
  - **Cornelius Mcloughlin – from NYU -** *Cornelius.McLoughlin@nyumc.org*
    - Are you planning on reporting some of the first Laboratory Systems?
    - I am familiar with Clindata from BSL, Berkeley Scientific Labs, 1970.
    - Also: Spear (Sperry-Rand?) and DNA (Diversified Numeric Analysis)
    - Those of us still around from the late 60s-early 70s would be interested!
  - **Walter Tanenbaum** - *Walter.Tanenbaum@mcgladrey.com*
    - Why don't you do one on consulting firms. That would be a kick!
    - I was CIO (or whatever it was called then) at Montefiore in 1970;
    - Was recruited by KPMG in 1980 at the beginning of their HCIT practice;
    - Recruited back to Montefiore in 81/ 82; went back to KPMG in 1987;
    - Founded my own firm, The FLEX Group, in 1987

  Thanks also to many others who have sent in encouraging emails on their HIS experiences. Keep those cards & letters coming in!

- Please send any contributions to: *vciott@hispros.com*

"H.I.S.-tory" by Vince Ciotti

Episode # 25:

AR/Mediquest – a "mini' Mini

Mini Recap

- Over the past few months, HIS-tory episodes covered a number of the "maxi" minicomputer vendors that ended the dominance of shared systems in the 80s (just as *they* had broken the mainframe system dominance in the 70s) per this great chart from Shelly Dorenfest's 1987 Guide:

  - **Meditech**
  - **Compucare**
  - **Dynamic Control**
  - **Keane**
  - **Saint**
  - **Sentry Data**
  - **Gerber-Alley**
  - **IHC**
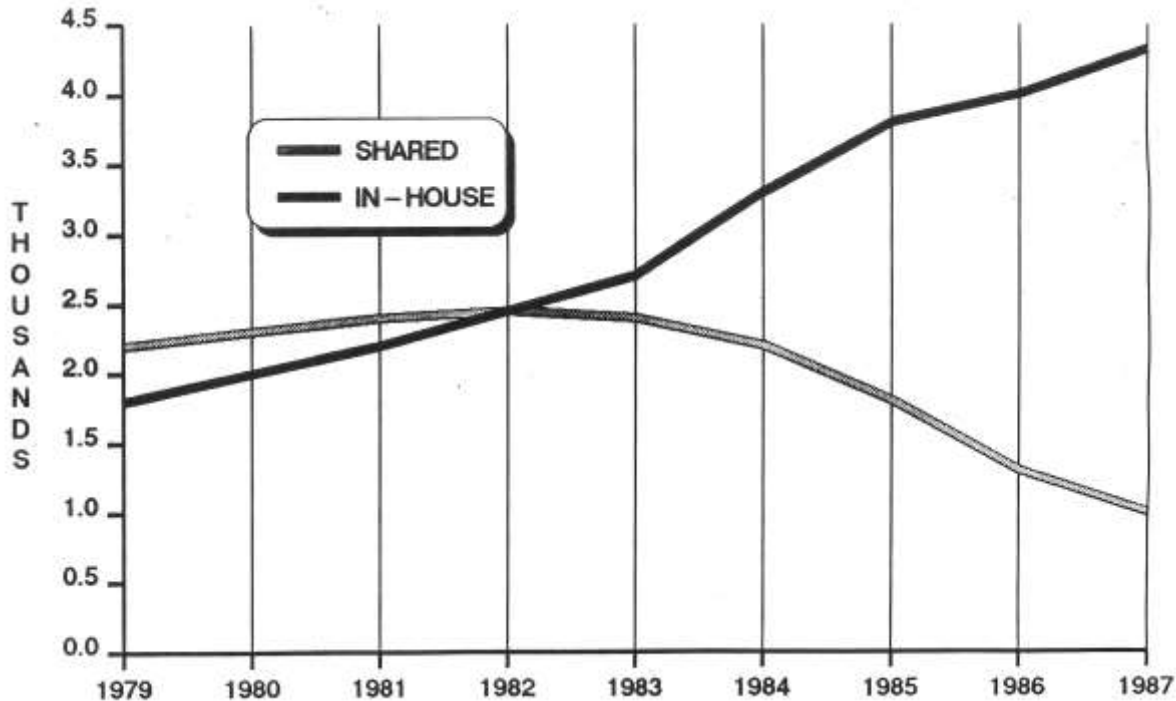
Mini Minis!?

- Now we start covering some relatively less-known minicomputer-based systems that still have some interesting lessons for today.

- This week, a lesser-known system that had a maxi impact on *fifty* small (defined as under 100 bed) Midwest hospital clients:

  - **AR Mediquest**, an **IBM**-based mini system

- In future episodes, we'll cover a few more mini players that lead us back into a re-visit of just how shared giants SMS & McAuto fought the mini revolution, through the history of such firms as:

  - **Computer Synergy**, Tom Culligan's San Fran. firm

- Giving a perfect segue into a brief revisit of mainframe

  systems, which hardly lay dormant in the 80s either,

  with major clinical system players like:

  - Datacare, Nadacom, CSC, NCR, PHAMIS, et al.

AR/Mediquest

- Another **IBM**-based mini system, this one on the System 34/36, that was based in Lansing, MI, with some fascinating twists...

- Thanks to these 2 HIS-tory heroes for the AR/Mediquest details:

  - **Paul McVicker**, Strategy & Planning Analyst today at Hannibal Regional Healthcare Systems in Missouri:

    - *"I was the Information Systems manager for Ozarks Medical Center (OMC) from 1985 to 1992 where I managed an AR/Mediquest system."*

Paul McVicker
Strategy & Planning Analyst
Hannibal Regional Healthcare Sy...
Strategy & Planning
6000 Hospital Drive
Hannibal, MO 63401
(573) 406-1613 Work
(573) 291-1756 Mobile
paul.mcvicker@hrhonline.org

   Paul sent in three lengthy emails on what it was like being an AR/Mediquest client, and was kind enough introduced me to:

  – **Kalon Mitchell**, President, MEDTranDirect, providers of Web Based HIPAA Transaction Software today; Kalon worked for AR/Mediquest back in the 80s, so knows it from the inside.

The "AR/Mediquest" Name?

- I always assumed "**AR**" in AR/Mediquest stood for "**Accounts Receivable**," but Kalon relayed this fascinating piece of trivia:

- The founders were named **"Andy & Roger"** and they formed the firm as "<u>AR Medical Management</u>" sometime back in pre-HIStory…

  - And the software is another fuzzy piece of HIStory trivia that tested my memory:

  - Seems **IBM** developed an early piece of software for hospitals way back in the 70s to spur sales of their System 34 minis,

  - (something like their development of SHAS in the 60s to spur 360 mainframe sales …)

  - I remember that it was called **HPMS** (Hospital Patient Management System), and that **IBM** provided it with their minis…

So Who Wrote HPMS?

- So just to be sure, I called **Dave Pomerance**, of **Dynamic Control** fame, who you should remember from episode 18 on **DCC.**

- Low and behold, *it was Dave's team* who built **HPMS** for **IBM**!
  - Installed User Program (IUP) was **IBM's** name for such projects
  - Like how Dave developed **HPMS** at Variety Children's in FL,
  - First on the System 3 mini, in RPG and a bit of Assembler,
  - Then later, re-writing it for IBM in RPGII for their System 34.
  - **HPMS** software was the licensed by **IBM** to hospitals who bought system 34 minis, which Dave estimates ran easily into *hundreds* of sites (independent of the *hundreds* sold by **DCC**)

- So Andy & Roger got their original software for AR Medical Management from **IBM** (courtesy of Dave's **DCC** programmers).

- (Amazingly, we helped a NY hospital replace **HPMS** *just last year!)*

AR Medical Management

- Andy & Roger eventually sold **AR Medical Management** to a real lady entrepreneur named Jean Johnstone.
  - Seems Jean owned a number of businesses, and was interest in two areas that were new to HIS back then:
    - <u>Medical Records </u>(HIM to you moderns), and
    - <u>MD clinics</u>, not only software, but owning them!

  (sound like another Midwestern entrepreneurial HIS lady?)
- Jean bought Andy & Roger's firm, renaming it **AR/Mediquest**
  - The "Mediquest" part to reflect her HIM and MD interests
- She also upgraded the HPMS software to run on System 36 minis, which were selling hotter than A & R's System 34…
- Eventually, she sold over 50 hospitals, mostly in the Midwest.
- But now the story shifts to *clients* perspective, from Paul:

Running AR/Mediquest

- From **Paul McVicker**, IS Director at <u>Ozark Medical Center</u> today:
  - "OMC was the first System/36 in southern MO to try twisted pair wiring.   IBM and AR/Mediquest tried to get us to stay with their usual twin-axial cabling, even going over my head.
  - The hospital backed me and we switched to the twisted pair wiring when we moved the data center and B.O. across the street, which took two days over a long weekend.
  - Everything went according to plan and the system came up 4 hours early. The CFO, head of maintenance and I were staying outside discussing how well the move went. The guy upstairs decided to remind us not to get a big head:
  - A lightning strike hit a telephone pole up the street *as we watched.* Within a minute, I had an operator at the door telling me the system was down, and there was a funny smell in the computer room…"

A Close Call!

- "The lightning took out the number 1 user connection panel on the System/36.

- A quick visit from Sorbus (I was not an IBMer for maintenance) and the number 2 panel was swapped in for number 1.

- The twisted pair equipment was unaffected. With the twisted pair, I was able to rearrange the high priority users to the remaining panel.

- If I had been on the twinaxial, the temporary fix would have been impossible due to the daisy chain nature of twinaxial.

- It only took Sorbus two days to get the replacement panel."

Denouement

- So what happened to **AR/Mediquest**?
- Unlike almost every other mini system we've looked at, they were *not* bought by some giant firm, re-named, and live on to this day...
  - E.g.: DCC, JS Data, Medseries4, etc., etc...
- Sadly, they met the undertaker, as Paul tells it:

- "We survived the December/January period (I think it was in 1991) when the IRS locked the doors of the company -
  - due to failure to pay taxes on a real estate investment Jean had made in Florida...
- AR/Mediquest staff operated *from their homes* to support the hospitals during that time."

  (talk about HIS-tory heroes!)

The Survivors

- Paul's finale ends the AR/Mediquest saga:

- "A group of 14 hospitals had the rights to the source code and took it to form their own cooperative in the late eighties.

- **Kalon Mitchell** formed a company named '<u>Remote Support Services</u>' in Springfield Missouri to support these hospitals.

- Remote Support Services has morphed into <u>MEDTran Direct</u>, Kalon's current firm."

- Paul found a web site with a 1994 continuation of the AR/Mediquest saga, sold to a firm named <u>Churchill Technology Inc.</u>, whose Vice Chairperson and Secretary was, you guessed it, Jean Johnstone!

    - The web address is:
      http://www.thefreelibrary.com/CHURCHILL+ACQUIRES+AR%2FMEDIQUEST,+ENTERS+HEALTHCARE+INDUSTRY-a015130677

'One of the classic survival stories of all time – a story of the will to survive against impossible odds' Daily Mail

ALIVE

The True Story of the Andes Survivors

Piers Paul Read
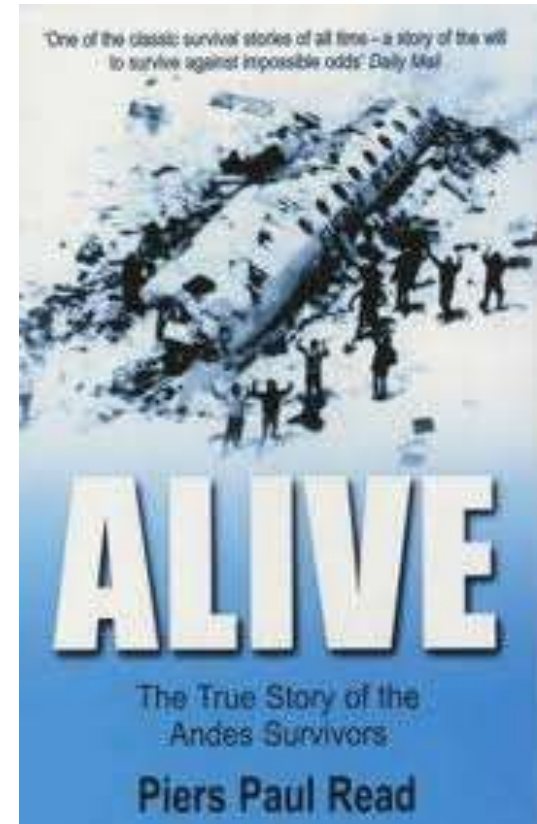
What's Next?

- Next week, we'll cover **JS Data** thanks to feedback from these two HIS-tory heroes:
  - **Steve Kilgus –** VP of Product Management at Emdeon - *Skilgus@emdeon.com*
    - You may remember Steve from the Gerber-Alley episode
  - **Tom Aikens – E**VP at maxIT - *tom.aikens@maxithc.com*
    - Tom's digging through his old files for some treasures…
- Would really love to learn more about the founder of JS Data a gentleman named **John Sacco**.
  - Anyone remember John or can steer me to someone who does?
- Please send any contributions to: *vciott@hispros.com*

"H.I.S.-tory" by Vince Ciotti

Episode # 26:

JS/DATA
HOSPITAL INFORMATION SYSTEMS
FOR THE S/34 AND S/36

Part 1

JS/Data

- Thanks much to these HIS-tory heroes who helped start the search for the JS/Data story:
  - <u>Steve Kilgus</u>, VP Product Development at **Emdeon** today: "Believe it or not, I came out of college and my first job was with JS/Data."
  - <u>Tom Aikens</u>, EVP at **maxIT** today who "worked for 21+ years at Dynamic Control, THIS, Baxter, Spectrum, IBAX, HBOC, McKessonHBOC, McKesson….. I think I got the names right!"

- So where did this tiny little upstart firm come from that had the nerve to challenge '70s shared system giants like GE, SMS and McAuto?
- Well, such a *tiny* company could only come from our *tiniest* state:
  - **Rhode Island!**

Riding IBM's Coattails!

- Like so many other mini vendors in the early days of HIS-tory, **JS Data** wrote their software for **IBM** minicomputers, joining:
  - **Dynamic Control**, which started on the System 3, then migrated to a System 15, then the System 34, 36, 38, and eventually the AS/400.
  - **IHC's ASI**, which started on the System 34, then went right up the ladder
  - **LeBlanc- Schexnayder**, which offered small hospital systems on IBM minis

  - **HCS** – Joe Fayhe's firm from Wall, NJ, running on the Sys 38
  - **AR/Mediquest** – starting on the Sys 34, migrating to Sys 36
  - **IHS** – in LaJolla, CA, also on IBM minis
  - Not to mention *dozens* of LIS, RIS & RX ancillary vendors…
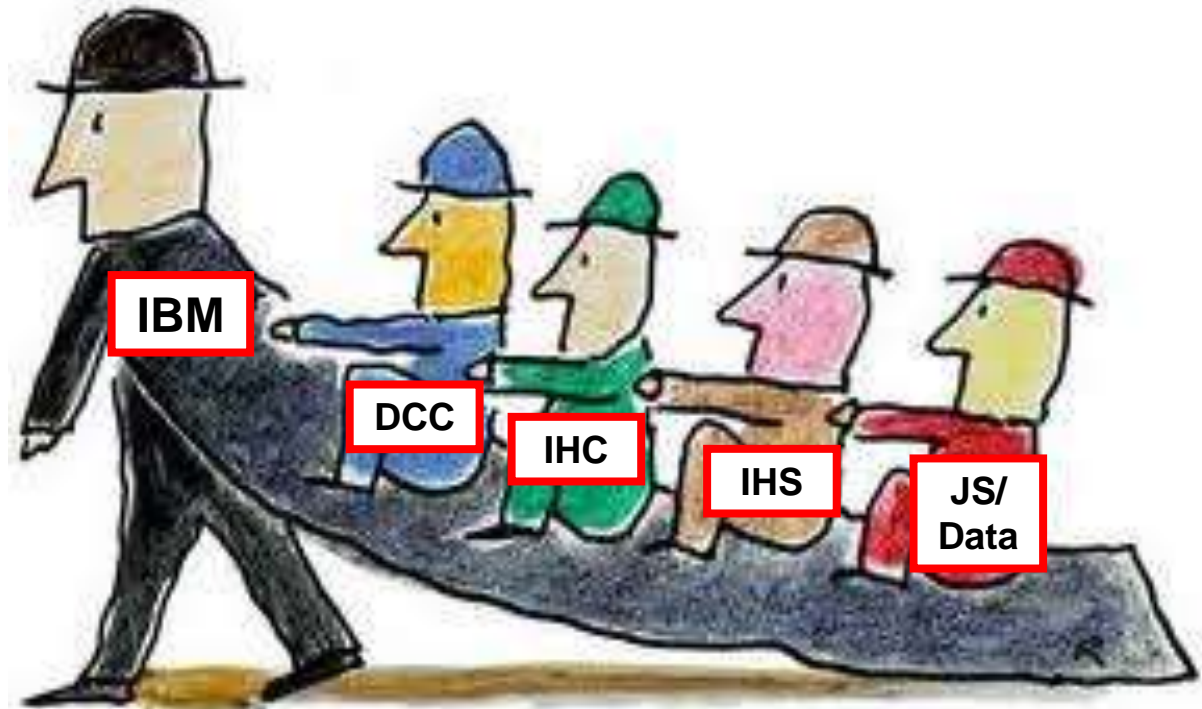
What's in a Name?

- "Data" is the easy part, but what's a "**JS**"?
  - First person to remember the answer was:
  - Dave Pomerance from Dynamic Control!
- Remember how "**AR/Mediquest**" was named after "Andy & Roger?" If not, go back to last week's episode, dummy…
- Well, "JS" stood for John Sacco, another HIS-tory hero who's living today in California, but started out working in Rhode Island at:
- South County Hospital – a small, 100-bed facility in Wakefield that had an early IBM System 32 mini, and John as their MIS Manager.

- By all accounts, John was a brilliant man, who visited the IBM office in Providence frequently to learn the latest RPG tricks.
- In 1978, he left South County to form JS/Data, programming it in his kitchen!

HIS-tory *Heroine*

- This episode is actually an "**HER**-story" as these details came from John Sacco's *first* employee:
  - **Beverly Frascati** (not related to that wonderful wine I'm sorry to say…)
- Bev worked at South County with John, and left to join JS/Data.
  - Amazingly, she's still working hard in HIT today at Roger Williams Hospital in Providence, Rhode Island, a "flagship" Meditech shop for site visits.
  - She gave a demo of Meditech to a prospect hospital from Vermont recently who still remembered her from their JS Data implementation years ago!
- She remembers the *"good old days"* well:
  - The first programmers were former musicians,
  - Who could make the Sys 36 RPG code hum!
- JS/Data sold well to many small hospitals:
  - Outside of the big cities, under 100-bed hospitals dominate New England, and JS/Data sold *scores* of them…

Ron-Jo(h)n?

- Actually, like so many HIS vendors, it took *two* to tango at the top of JS/Data, like:
  - Jim Macaleer & Harvey Wilson together built **SMS**
  - Dave Pomerance & Mitch Laskey led **DCC** to the top
  - Urban Gerber & Terry Alley formed **Gerber-Alley**
  - Andy & Roger originally created **AR/Mediquest**...
- At JS/Data, the duo was:
  - John Sacco (on left)
    - CEO, super-salesman and programmer
  - Ron Young (on right)
    - COO, chief cook & bottle-washer

Rapid Rise to the top…

- From John programming & selling, Bev Frascati doing the installs, and Ron Young running the "back office," JS/Data grew & grew…

- **IBM** had them present at regional conferences where System 36 salesmen were thrilled to introduce a hot software "partner"

  - Although in fact, John & Ron never became a VAR (Value Added Reseller) for fear of losing their treasured autonomy…

- By 1983, they had sold over 200 hospitals on their system, and grew to over 100 employees (Ron swears they never lost an FTE!)

- Their biggest claim to fame was DRGs!

  - Almost as big in the early 1980s as ARRA & Meaningful Use are today.

- Along with DRGs, JS/Data offered a wide array of financial apps, even getting into Pharmacy, as the next page attests:

Treasure from Ron Young's Files:

JS/DATA began servicing hospitals in 1978 providing contract programming to those clients operating on an IBM System/32 or System/34 utilizing IBM Hospital Financial Management System (HFMS) software. During this time, client needs were evaluated as to the demands placed upon small to medium hospitals for processing and reporting of data.

As a result, JS/DATA designed hospital financial systems that operate on an on-line, real-time basis. With our programming standard of simple design, operator screens display necessary instructions to allow ease of use by non-data processing personnel. Search capabilities are included in our file displays to allow access by more than one parameter. Our applications are also known for their report and display flexibility and inherent audit controls.

Due to our experience with IBM HFMS applications, our software contains file and coding logic that allows for a quick and simple conversion from HFMS to our systems. Since our applications are modular, all of our products can interface with any IBM HFMS system.

Today, JS/DATA offers services that include consulting, systems design, contract programming, conversion and installation support for hospitals operating on an IBM System/34 or System/36. Our product line currently includes Patient Accounting, Payroll/Personnel, Accounts Payable, General Ledger, DRG Case Mix Reporting, PAS/34-PAS/36*, Pharmacy Management, and Materials Management.

Whatever happened to JS/Data?

- Did they go broke like other mini pioneers such as:
  - AR/Mediquest & Sentry Data?
- Or did they get gobbled up like:
  - Dynamic Control,
  - Compucare,
  - SAI (Saint), and
  - Gerber/Alley?
- You'll just have to wait until next week to find out -
  - 'Cause it's late and I'm tired…
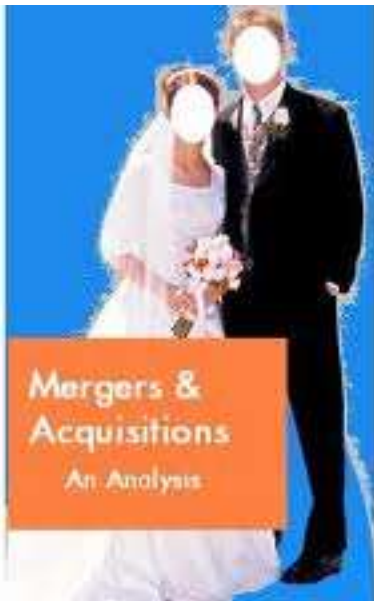
"H.I.S.-tory"

by Vince Ciotti

Episode # 27:

JS/Data

Part II

AT SEA WITH DRGs?

ANNOUNCING IBM HFMS INTERFACE

IBM SYSTEM 34/36

JS/DATA

DRG

GROUPER*

*GROUPER
1. Southern warm water fish.
2. Case-mix reporting system.

JS/DATA

HOSPITAL INFORMATION SYSTEMS
7630 POST ROAD • NORTH KINGSTOWN • RHODE ISLAND 02852 401•294•3353

Now Where Were We…

- We're just finishing up the mini vendors who dominated HIS sales in the 1980s:
  – HBO, Meditech, DCC, Gerber/Alley, etc.
- Upsetting the dominant shared systems like:
  – SMS, McAuto, GE, Tymshare and the many Blues…
- We're down to the last few "mini" minis:
  – AR/Mediquest and JS/Data, both running on **IBM**
- Who, although they didn't dominate in terms of number of $s, made fascinating HIS-tories:
  – Remember what "AR" in **AR/Mediquest** is for?
- So whatever happened to **JS/Data**?
  – Click right to find out!

Hidden HIS-tory Heroes

- John Sacco, founder of JS/Data, and Ron Young, his COO, were kind enough to give credit to some of the many hard-working employees behind the scenes who made JS/Data succeed, like:

  - <u>Bev Frascati</u>, top right, who installed systems at many of JS/Data's clients, and is still working today at Roger Williams Hospital

  - <u>Becky Magee</u> – (no picture, sorry) who John stole away from AR/Mediquest: *"I hired Becky Magee away from them and she became a super salesperson for us."*

  - <u>Sue Cohen</u>, bottom right, according to Ron Young: *"one of the best technical writers in the industry. She wrote and typed every single user manual for JS/Data by herself, an amazing technical writer."*

Exeunt, Stage Right

- So what happened to **JS/Data**? Check out this cover of Healthcare Computing and Communications circa 1984, that features many of the key players in JS/Data's fate (from left to right):

  - <u>Rick Adam</u> – the boss at Baxter Travenol Laboratories

  - <u>Frank Russo</u> – who headed up StonyBrook systems

  - <u>Steve Dougherty</u> – who headed sales at DCC

  - <u>John Sacco</u> – **JS/Data** CEO

  - <u>Ron Young</u> – **JS/Data** COO

VOL. 2 NO. 3   MARCH 1985

HEALTHCARE
COMPUTING & COMMUNICATIONS

Baxter Travenol Laboratories, Inc.,
Information Business Group is interviewed
about their future in healthcare information
systems—page 54

Computerized Office Practice—page 25
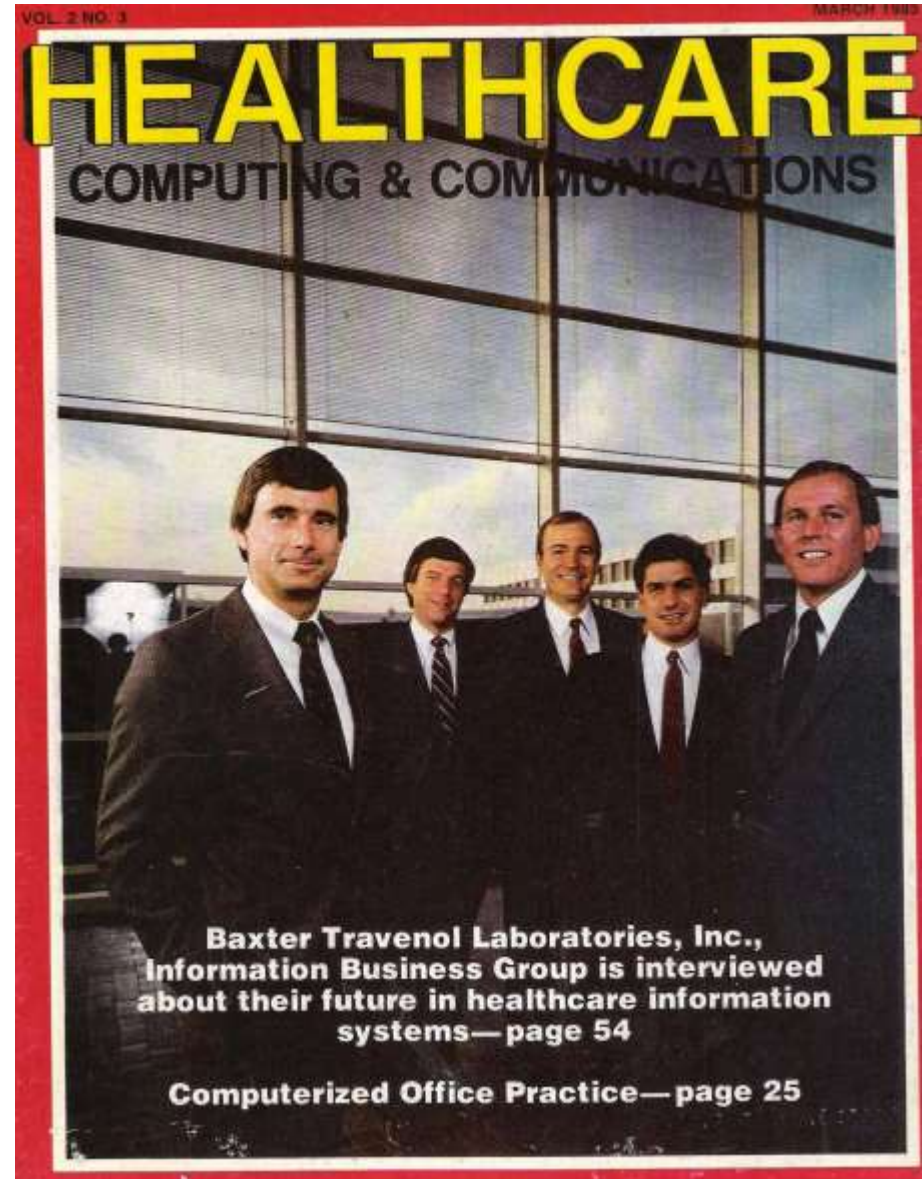
Baxter/Travenol/AHS

- Like DCC, JS/Data was *acquired*, by Baxter in 1984 (who themselves had merged with Travenol and American Hospital Supply), creating an offering of 3-tiers of HIS:

  - <u>JS Data</u> – on **IBM's** Sys36, called "Alpha" for <100 beds

  - <u>Dynamic Control</u> – running on **IBM's** Sys 38, which they called "Delta" and sold to mid-size sites of 1–300 beds

  - <u>"Stony Brook Systems"</u> = **IBM** "PCS/ADS" mainframe software for large AMCs and IDNs named "Omega."
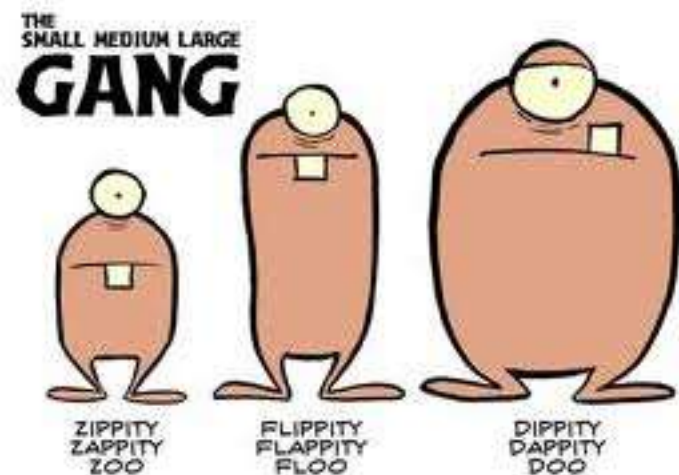
So Baxter/Travenol now covered the waterfront, with products for every size hospital, and JS Data was their stellar "low-end" option, targeted to small, <100 bed community hospitals.

Internecine Warfare

- **Steve Kilgus** points out the problem **Baxter** hit:
    - The line between **Alpha** (JS Data) and **Delta** (Dynamic Control) was a rather thin one as, in fact, **JS Data** had a number of hospitals at or *over* 100 beds, just like **DCC** had many *under!*
    - Baxter allowed prospects to chose between them, running demos and giving bids for ***both*** so the hospital could pick…
- Sounds magnanimous, but it drove **Baxter** sales people crazy in that they were basically competing with each other!
    - Let alone R&D programmers at HQ who were loathe to share product development with the "enemy" in the next cube…
- *Isn't it wonderful how much progress we've made today:*
    - *Leading vendors like McKesson, Siemens, Meditech, etc., have learned to offer but a single product to concentrate all their sales and R&D on… no product overlap for them!*

Merger-Mania Continued!

- **Baxter** reached ≈300 hospitals on JS-Data, making it one of the best-selling small-hospital systems of the 1980s.

- Since all 3 of the supply giant's products ran on IBM,

    (Alpha on Sys 36, Delta on Sys 38, and Omega on mainframes)

- Their next move was predictable: "partner" with IBM!

- What do you call the combination of IBM and Baxter?

- Why: **IBAX** of course, the "next big thing" in 1989 HIS, who immediately re-named their 3 acquired products:

- JS Data/Alpha became Series 3000
- DCC/Delta became Series 4000
- Mainframe/Omega = Series 5000
- Got it? Good because it's all gonna change with the next merger…

One More Time…

- IBAX grew to 800 employees, and was headquartered in Hauppage, Long Island, close to Stony Brook Hospital, the site of mainframe software "Omega's" development.

- CEO of the new firm was **Frank Russo**
  - Former CIO at Stony Brook University Hospital
  - Who built Omega using **IBM's** "PCS/ADS"
  - IBM's tools for "roll your own" mainframe sites,
  - Which evolved from the "Duke/Parkland" System.

Frank A. Russo, President, Systems Division, Baxter Healthcare Corporation.

- Needless to say, IBAX too was open to offers…
  - And in 1994 **HBOC** bought them and their ≈600 clients!
  - *JS Data (Series 3000) was "merged" with DCC (4000) to make "Series 2000," later shortened to just "Series," in which **pieces of JS-Data's RPG code still runs in hundreds of hospitals today!***

The HIS "Family?"

- So what's with all the **paisans** at HIS vendors:
  - Frank Russo at Baxter
  - John Sacco & Bev Frascati at JS Data
  - Bob Pagnotta at MDS and Tymshare
  - John DePierro ay Gamut & MDT
  - Neal Pappalardo and Larry Polimeno at Meditech

- As for SMS, well it might as well have been from Palermo as King of Prussia:

  - Tony Sammartino
  - Sam Ziviello
  - Rick Folino
  - Vince Ciotti
  - Bob Romani
  - Tony Mirigliani
  - Peg Micelli

- Ah well, I'm sure it's just a coincidence…

And Where's John Sacco Today?

- Working hard! Check out this amazing coincidence:
  - My *daughter* made a major mistake, and followed in her Dad's footsteps into healthcare, first as a Travelers Nurse…
  - She travelled all over, & got nice experience using various HIS-es,
  - Then took a job at UCLA Medical Center on an "epic" Epic implementation.
  - So who was her Project Manager at UCLA?
  - You guessed it:
    - **John Sacco!**
  - John has since retired, and is moving to the south of France:
        "Vive La Provence!"
- John, save me some vino!!

What's Next?

- Here's some interesting ideas from recent emails:
  - **Cornelius Mcloughlin – from NYU -** *Cornelius.McLoughlin@nyumc.org*
    - Are you planning on reporting some of the first Laboratory Systems?
    - I am familiar with Clindata from BSL, Berkeley Scientific Labs, 1970.
    - Also: Spear (Sperry-Rand?) and DNA (Diversified Numeric Analysis)
    - Those of us still around from the late 60s-early 70s would be interested!
  - **Walter Tanenbaum** - *Walter.Tanenbaum@mcgladrey.com*
    - Why don't you do one on consulting firms. That would be a kick!
    - I was CIO (or whatever it was called then) at Montefiore in 1970;
    - Was recruited by KPMG in 1980 at the beginning of their HCIT practice;
    - Recruited back to Montefiore in 81/ 82; went back to KPMG in 1987;
    - Founded my own firm, The FLEX Group, in 1987

  Thanks also to many others who have sent in encouraging emails on their HIS experiences. Keep those cards & letters coming in!

- Please send any contributions to: *vciott@hispros.com*

"H.I.S.-tory" by Vince Ciotti

Episode # 28:

Computer Synergy
Part 1

SyNeRG

Now Where Were We...

Weekly Recap

- We're just about ¾ of the way through these HIS-tory episodes, having covered:
  - 1950's "Pre-cursors" (posting cards, Medelco...)
  - 1960's Mainframes (IBM, the "BUNCH" group...)
  - 1970's Shared Systems (SMS, McAuto, GE...)

- We've been wrapping up turnkey minicomputer systems that revolutionized HIS in the 1980's:
  - Dynamic Control, Saint, Sentry, Gerber-Alley...

- These last two mini vendors to be covered will actually take us back to re-visit Shared and Mainframes, who were hardly asleep in the '80s
  - Starting with one of the most creative names in HIS:

Computer Synergy, Inc.

- Formed by Tom Culligan in Oakland, CA in the 70s, Computer Synergy ran on DEC's line of "VAX" minicomputers, easily the 2nd most popular box after **IBM's** System 34, System 36 and System 38.

- Tom started out as an **IBM** sales rep, which should sound familiar by now, if you remember the background of so many of SMS' three founder and HIS visionaries:
  - Jim Macaleer, President
  - Harvey Wilson, Sr. VP
  - Clyde Hyde (sadly deceased)

- Indeed, remember this **IBM**/**SMS** connection as we dig deeper…
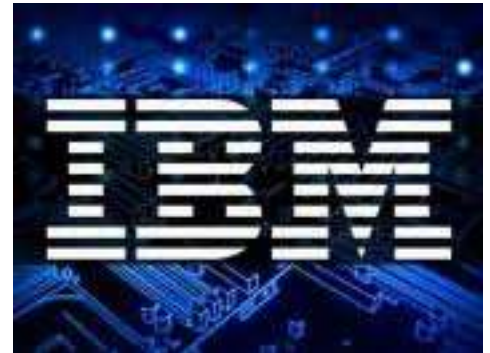
DEC's VAX

- So why DEC and not **IBM**?

- DEC's VAX line of minis were truly breakthrough boxes:
  - Introduced circa 1976, they increased the 1960's "PDP" line's memory capacity from 16 to to 32 bits
  - Indeed, the first VAX - the model 11/780, was referred to be DEC as a "Super-minicomputer!"
  - DEC wisely priced it very competitively as well, so in terms of price/performance, it competed well with Big Blue's minis.
  - VAXes came with the VT52 terminal, one of the first "smart" terminals
  - Followed shortly by the VT100, giving DEC a hot suite of peripherals.

Early Sales Successes

- Like so many mini vendors in the late 70s and early 80s, Computer Synergy sold well, offering:
  - A full suite of integrated clinical *and* financial apps
  - Remember, "clinical" in those days was lot simpler than today, comprised primarily of Order Entry…
- Shared systems leaders SMS and McAuto were struggling to keep market share.
- Their strategies were 2-fold:
  - Build mini systems inhouse
  - Acquire the hot-sellers
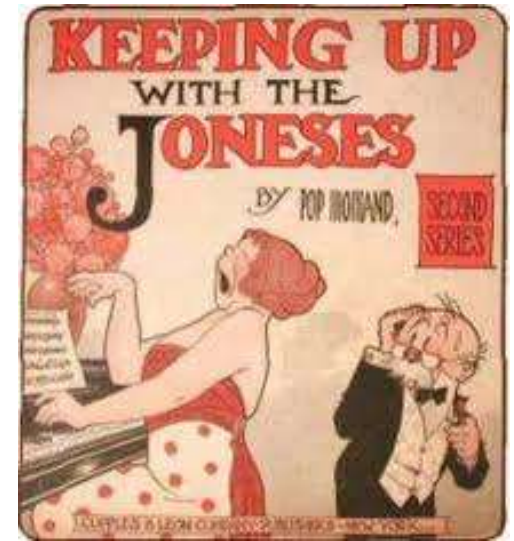
Shared System Mini Offerings

- **McAuto**
  - The leader in terms of the # of hospitals, tried both routes:
    - Inhouse - they developed HDC (on a DEC *and* Four Phase) and PCS (Tandem)
    - Acquisitions – they acquired MHS (Mini-based Hospital System) from Skip Shippee, that ran on Microdata minis McAuto also bought.

- **SMS**
  - The leader in terms of annual revenue, also pursued both routes:
    - Inhouse - they developed ACTIon, on *either* Four Phase (200 - 600 series) and DEC VAXes (1100 - 1500 series)
    - Acquisitions – eventually IHC's Medseries 4, but ***guess who came first??***
- ***Stay tuned for next week…***

"H.I.S.-tory"

by Vince Ciotti

Episode # 29:

Computer Synergy Part 2

Shared System Acquisitions

- We left off last week with how shared systems were trying to "keep up with the (turnkey mini) Joneses" by either building or buying competitive mini systems. On the "buy" side:
  - **McAuto** had *very* deep pockets thanks to its giant airplane company parent, and bought a number of minis:
    - Skip Shippee's "MSA" mini-based HIS out of NC, programmed in the "Pick" operating system, running on:
    - Microdata minicomputers made in the UK, which **McAuto's** parent had bought earlier - talk about a "*total* solution!"
    - **Mac** also bought a number of ancillary dept. systems, eg:
      - LabCom = Dr. Hick's "LSI," a premier, large-hospital LIS
  - **SMS** – hardly asleep, **SMS** started with the rights to HBO's MedPro in the 70's, eventually buying MedSeries4 in the 90's,
    - But it's 1980's mini acquisition was **Computer Synergy!**

"The Spirit Choice"

- In 1985, **SMS** acquired **Computer Synergy**, but ran into a dilema:
- The ACTIOn 1100 and 1500 lines were, in a sense, competitors:
  - Running ADT, Order Entry, etc
  - Also on DEC VAX minis!
- What to do? Well , when in doubt, *compromise*, so **SMS** merged the two competing products into "**The Spirit Choice**," using ACTion clinicals as the "front end" and Synergy apps as the financial "back-end" systems.
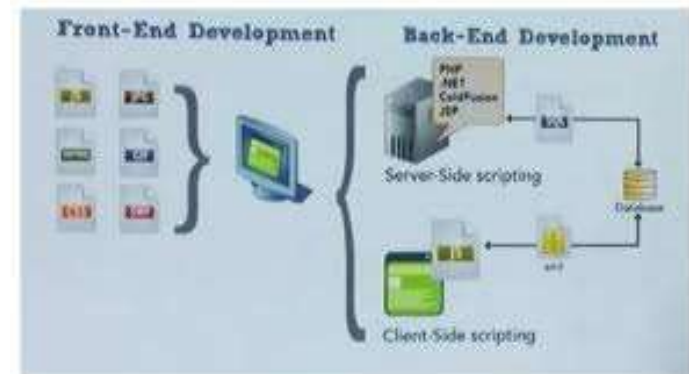
Round 2 in Malvern…

COLD!

- Sounded good on paper, but sold like "cold cakes" as the two disparate systems required an interface "under the covers" and savvy MIS Directors (no "CIO"s back then…) saw through the charade…

- After a few frustrating years trying to get the marketing, programming teams and R&D plans in synch, SMS finally relented and went back to the original integrated Computer Synergy product and came up with a much better name as well:

- **"The Spirit Choice"** *was* a bit of a mouthful!

Allegra

- Now *that* name was more like it!
  - Hot, upbeat, positive, just like sales of this totally integrated VAX-based HIS, with >100 sold by SMS' superb sales team.
- And SMS' **Allegra** had a leader as hot as the product:
  - Tom Tomlin, by the 1990s, SMS' senior vice president and general manager of the Turnkey Systems Division

M.G. (Tom) Tomlin is senior vice president of Technical Installations and Support for SMS.

- Tom ran a tight ship, and led the **Allegra** team well; I can still remember hearing his excellent shtick at a "Dog & Pony" show in Malvern in the 90s as our firm was including **Allegra** in system selections
  - Just one fly in the ointment…

Internecine Warfare

- SMS ran into the same problem Baxter had with **JS Data (Alpha)** competing with **DCC (Delta)** in the small hospital market – if you remember last week's episode…

- Indeed, when we issued an RFI for one of our hospital clients, we were never sure what SMS would bid:
  - Allegra, MedSeries, Independence, ACTIon, Unity…
  - ***Indeed, they probably didn't know either!***

- Plus, the R&D costs to keep so many competing products up to date in the ever-changing world of Healthcare, let alone the imminent threat of Y2K…

- So the sad outcome was:

As the sun sets slowly in the west…

- **SMS** stunned about 175 Allegra users with a sad letter announcing the "sunset" of Allegra just before Y2K and its extensive re-writes.

  – A wise business decision, as re-writing the millions of lines of COBOL code in SHAS alone would task any R&D team, let alone their myriad of other products like MedSeries4, ACTIon, etc.

  – *(Which leads one to appreciate the stunning name of "Sunrise" Eclipsys came up with for their successor product to TDS!)*

- So what were the hundreds of Allegra clients going to do?

- One of them was Virginia Beach General Hospital, that had an excellent user department head who had mastered Computer Synergy so well, he left and formed his own computer company:

  - "Opry Consulting" – started in 1992

Rick Opry in the Nexus…

- Rick saw an excellent opportunity and jumped right in:
  - Offering ongoing support and ongoing maintenance to the many Allegra clients stuck between a ->

- Indeed, Opry Consulting picked up so many Allegra clients (about 75 all told), he started writing a series of new "Sapphire" web-based apps for them programmed in Ruby & Java.

- In 2001, Rick purchased rights to the Allegra software from SMS, and re-named his company: **"IntraNexus"**
  - A bit of a tongue-twister, but then so was **Computer Synergy** & **The Spirit Choice!**

- **IntraNexus** grew to over 100 employees, and Rick prided himself in the excellent personal touch of service & support he provided.

End of the Story?

OMG APRIL FOOL!

"VIRGINIA BEACH, VA --- *April 1*, 2011 --- Quality Systems Inc. (NasdaqGS: QSII) entered into an asset purchase agreement to acquire IntraNexus, Inc. for $4.9 million on April 1, 2011. The purchase price consisted of cash consideration of $3.3 million plus additional contingent consideration to be made over a three year period, not to exceed $1.7 million."

- Quality Systems Inc. is the parent company of NextGen, the same firm that bought Opus clinicals & Sphere financials last year.

  - So how are they going to position Sapphire and these two small-hospital products? Talk about an intra-nexus…

- So there you have it: from Tom Culligan in San Fran in the 1970s, through SMS in the 1980s, to Opry Consulting/IntraNexus in the 1090s, to NextGen in the 2000s – almost a mini-HIS-tory in itself!

  - ***And pieces still running in about 50 IntraNexus clients today!***

"H.I.S.-tory"

by Vince Ciotti

Episode # 30:

H.I.S., Inc.

Part 1
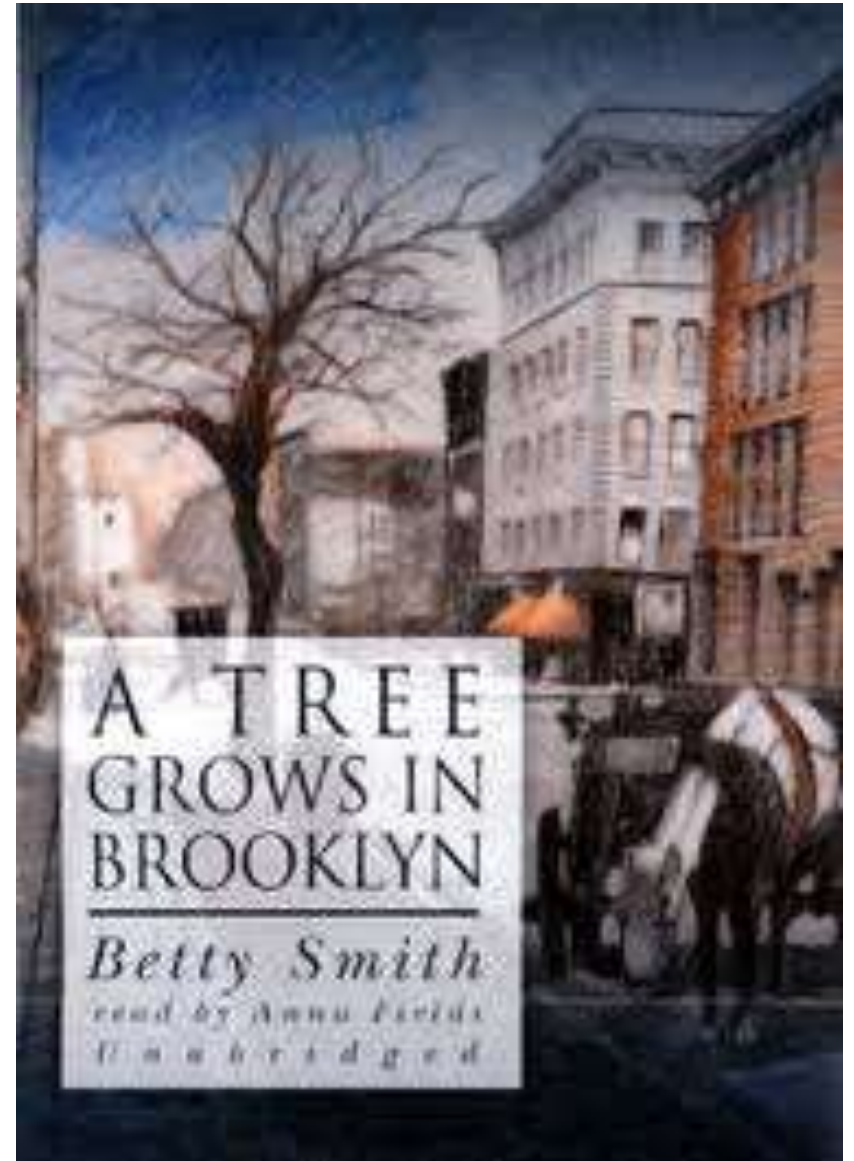
Now Where Were We…

- Well, we've come to the end of our minicomputer saga, this last episode telling the tale of a daring young mini-based firm in Brooklyn, NY, that had the temerity to think they could grow into the *mainframe* market.

- Why? For the **money**, of course! Mainframes sold to the largest hospitals who paid the most for hardware and software, so every vendor dreamed of selling to the big boys…

- And just who dominated the mainframe market in the late 70s when minis first took hold? If you remember our earlier episodes on mainframes, there's a simple, 1-word answer you can see on the chart on the right from Sheldon Dorenfest's 1987 "Guide:"

Hardware Vendor Annual Revenue

(Bar chart showing IBM, DEC, DG, UNISYS, NCR, HP, HONEY, TANDEM; values on y-axis from 0 to 1000; legend: 1986, 1985. IBM ≈ 920/820, DEC ≈ 175/140, DG ≈ 140/100, UNISYS ≈ 125/120, NCR ≈ 75, HP ≈ 50, HONEY ≈ 40, TANDEM ≈ 30)
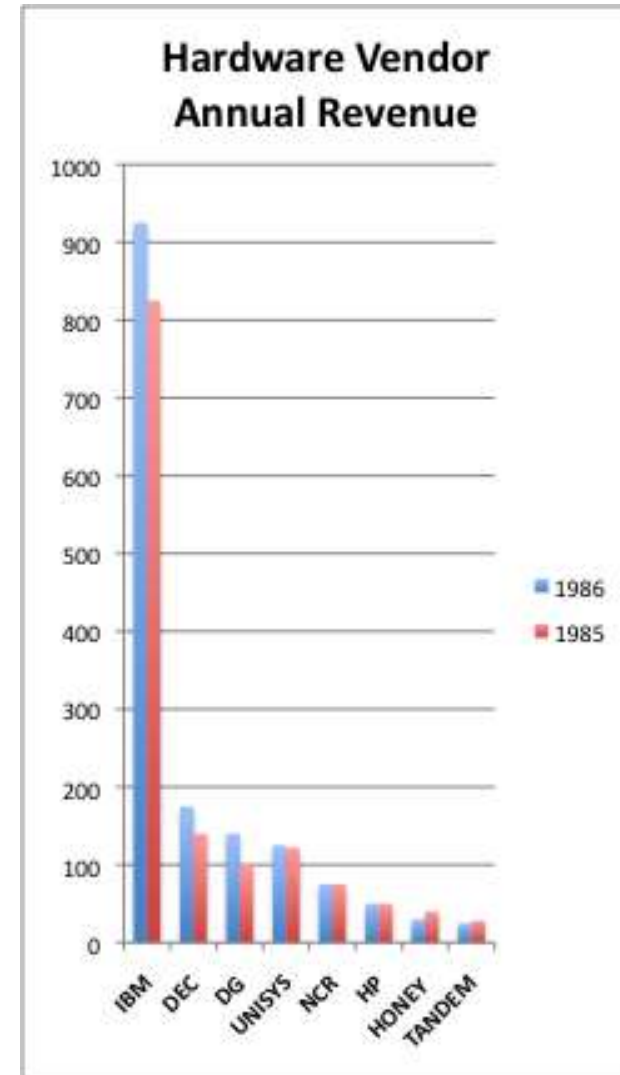
Mainframe Software Vendors

- And who wrote code for these **IBM** mainframes? A whole bevy of vendors vying for the huge revenue opportunity of selling to the largest hospitals willing to pay many millions to keep their 4300s running, and all developed at pioneering client sites. The leaders:
  - **IBM** itself offered software named after 2 of their largest and most prestigious clients who built it:
    - The Duke/Parkland System, which was primarily a set of clinical apps that clients had to customize heavily to meet their needs
  - **TDS** – with superb MIS clinicals & pioneering CPOE developed first at El Camino Hospital in CA
  - **Medicus** – an HIS consulting firm who developed a hot patient accounting software package called "Medipac" at Evanston Hospital in Illinois.

An Unlikely Challenger

- The upstart little firm who challenged these far larger and more proven vendors is an amazing HIS-tory in its own right.

- The firm's name gives away their chutzpah: **Healthcare Information Systems, Inc**., and was started by two of the smartest and hard-working guys I ever met in the industry:
  – <u>Barry Septimus</u> – chairman and super-salesman
  – <u>George Weinberger</u> – president and super-techie

- They started HIS Inc. in 1978 selling a Long Term Care system that ran on Quantel minicomputers, writing code in Basic
  – (the Dartmouth "Quick-Basic" variety)

- They were aided by a 3rd young HIS-hero name Gershon Weintraub, who could demo the socks off of a bobby-soxer!
  – "Geashon" (as his name was pronounced), did their early installs, while Barry sold and George developed the code.

Early Success & Rapid Growth

- Working out of a brick corner building in the Borough Park section of Brooklyn (with no air conditioning in the sweltering summers!), **HIS Inc.** grew rapidly, selling & installing over 20 LTCs on their mini systems, and growing the firm's staff and annual revenue nicely.

- Many LTCs were owned by or affiliated with hospitals, who liked the system so much they asked if **HIS** had any acute care software?

- That was all the boys from Brooklyn had to hear! George's programmers took off expanding the LTC system to handle acute care needs. Whatever prospects told Barry they needed, George programmed it Sunday and Gershon installed in on Monday!

- Soon Gershon was installing their new *hospital* mini system all around NY city and state, including such large & prestigious sites as <u>Westchester County Medical Center</u> and <u>NYU</u> right across the bridge in Manhattan!

Too *Small* for Their Britches

- NYU proved to be a real challenge, as the Quantel minis were just not up to the huge volumes of a such a large & complex major medical center.

- The software was plenty powerful, as HIS added a full suite of general accounting (ERP to moderns) applications and all the demands of NY billing.

- Plus, Barry was getting interest from more and more large medical centers in NYC all of which ran on **IBM** mainframes: 4300s, 303Xs or 308Xs.

- It didn't take long for **HIS** to decide what they had to do: re-write the Basic code to run on **IBM** mainframes, whether older DOS or new MVS OS.

- George and his Tech VP and programming genius, Harold Fischman, picked PL/1, ironically, written in a NYC project lasting from 1965 to 1975.

A Brilliant Move!(?)

- Rather than start from scratch re-writing all the HIS programs in PL/1, George and "Heshy" (Harold) decided on a brilliant approach:
  - *Translate* the software from Basic to PL/1, by writing a translation program that morphed the Basic code into PL/1 logic; where log jams were encountered, then and only then would human programmers jump in and write the needed PL/1 code.
  - At a stroke (literally), they were off, coding their usual 12 hour days and 6 day weeks (Saturday = Sabbath)

- Barry started thinking about the hundreds of large **IBM** mainframe hospitals *around the country* who were targets, and realized he needed to hire a Director of Marketing who knew the larger market outside of NYC

- And didn't look and sound like a "New Yahkah" to all those foreigners out West…

Fatal Flaw

- And it was here where these brilliant NYC entrepreneurs made their one dumb mistake.
- I've tried to keep these episodes free of personal prejudice, but I just have to state that the man Barry & George picked is one of the most pathetic names in the HIS industry:
    - An ego as big as his mouth (huge!)
    - With little or no brains to back it up
    - With an insatiable hunger for the limelight
    - Never knowing when to shut his trap
    - And totally devoid of any morals
- This idiot almost sunk **HIS**' ship single-handedly with his poor sales management.
- Who was the jerk? Stay tuned next week…
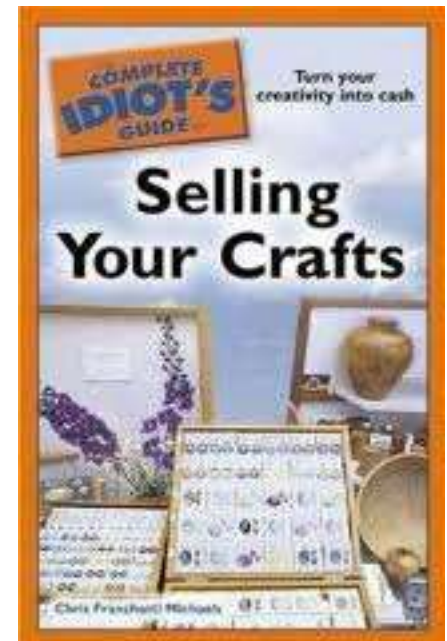
"H.I.S.-tory"

by Vince Ciotti

Episode # 31:

HIS, Inc.

Part 2
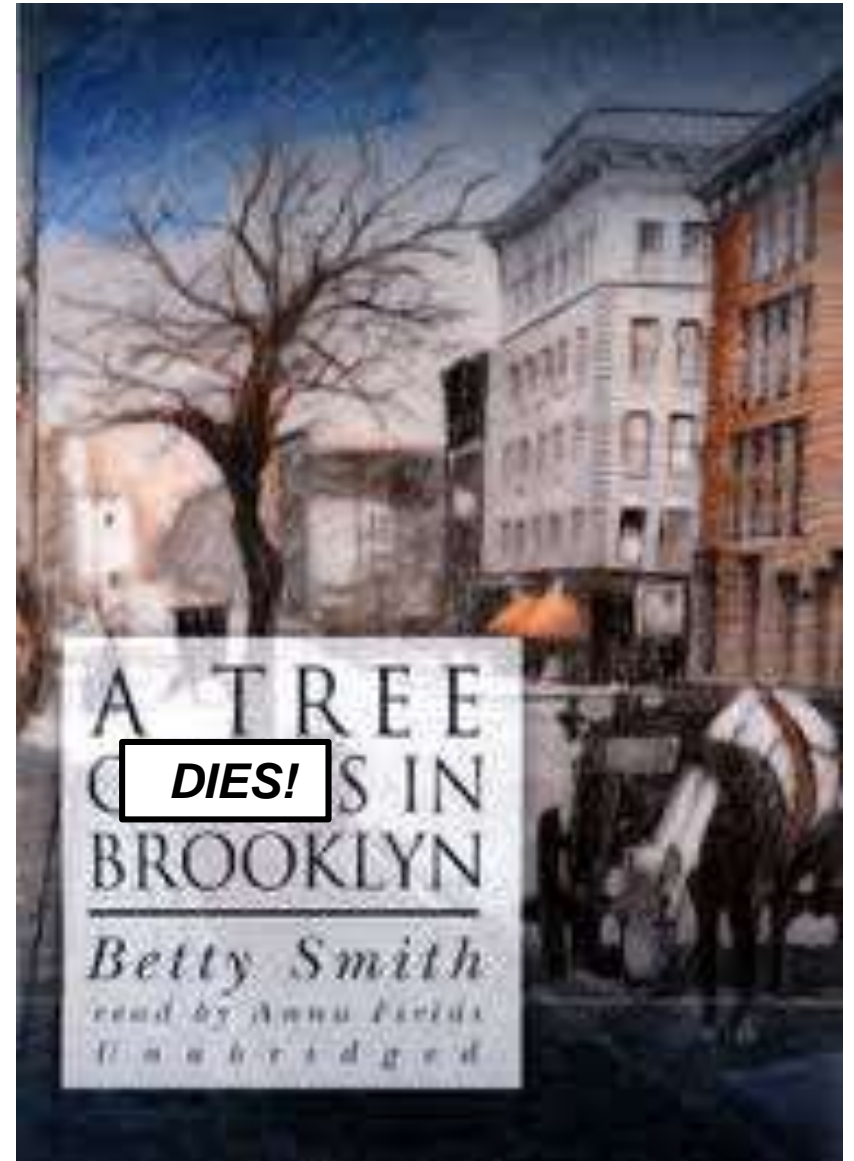
Now Where Were We…

- We left off last week with HIS Inc. in Brooklyn, NY, searching for a Director of Marketing who could lead them into the *huge* **IBM** mainframe market. Someone:
  - well-connected,
  - technically savvy,
  - with lots of street smarts,
  - tons of sales & marketing experience,
  - well-spoken and
  - highly intelligent.
- Unable to find anyone that fit the bill, they hired this idiot instead:

Actually…

- I had one great advantage: I had worked with the best sales and marketing guys in the business at both SMS and McAuto, so I recruited them to HIS, and matched them to their "native" territory

Roland Thibault
An SMS & McAuto vet & ex-CFO, for the Mid-Atlantic

Dick Schopp
A old McAuto pro & sales superstar, for the Midwest

Mike Crabtree
Ex-Mac sales support maven

Larry Evans
Ex-McAuto sales support guru, also designed HIS' clinical apps.

Jud Foreman
An IBM & SMS superstar, for the Western region

Brain Fitzpatrick
One of SMS's best reps ever, for the Rocky Mtn states

Some jerk from Philly who got off the wrong subway stop in Brooklyn…

Bert Hochstein
HIS Inc's own NY native, for the Northeast region

Don Trammell
Ex-SMS and McAuto sales superstar, for his native South.

Fly In The Ointment

- There was one minor challenge to selling HIS Inc:
  - *The mainframe system didn't yet exist!*
- Although Heshy's team were programming their proverbial pants off, there would be no demonstrable code for some time until the translation program was done and Basic code morphed into PL/1.
- Actually, a minor problem! I had seen how SMS, McAuto and many other vendors were able to "sell systems before their time"
  - *(a practice that has ceased in this modern age, right?)*

But just in case you moderns wonder how we ancients were ever so dumb (should I add - immoral?) as to sell a system before it was ready, here's the recipe, just in case this terrible practice ever sees the light of day in these technologically advanced & far more enlightened times:

How To Sell "Vision-ware"

1. <u>Super Sales Team</u> – a team of elite sales pros who:

   A. Sell *themselves* with total credibility, evangelizing their strong internal belief in their company & its product vision.

   B. "*Closers*" – able to make businessmen commit with pen in hand both their personal and their organization's future.

   C. *Proven* track record – having made quota for many years and closed numerous deals in the past – no room for rookies!

      2. <u>Marketing Mavens</u> – Backed up by an HQ team of:

      A. Media gurus for ads, brochures, & presentations (foils back then, ppt today) that refine the vision.

      B. Sales support pros who can blow prospects minds either in 1-on-1 demos or in group presentations.

      C. Proposal team that does not know the meaning of the word "no" when answering RFP feature checklists.

Selling "Vision-ware," cont'd

3. <u>Executive Commitment</u> – the entire C-Suite willing to:

    A. *Wine and dine* with prospects' executives & Boards making HQ visits, often involving weekday nights & weekends…

    B. Willing to order *everyone* in the company to drop whatever they're doing and help in a sale, demo, site visit, RFP, etc.

    C. Willing to invest *heavily* in sales commissions and marketing budgets for ads, booths, T & E, and give-aways.

4. <u>Technical "Breakthrough"</u> – the latest techie fad:

    A. Far more modern than established "legacy" systems, which were mainly shared batch-processed systems.

    B. With hot buzzwords that caught the ear like: 4GL, on-line, real-time, Open, C/S, Cloud, thin client, SaaS, etc.

5. <u>Timing</u> – to match your product vision with an intense market need *(– like launching an E.H.R. in 2008!)*
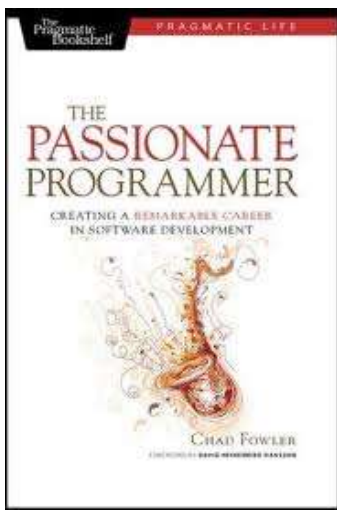
We Had It All!

- Whether luck or hard work, we filled all 5 criteria:

  - Sales superstars Schopp, Foreman, Trammell, Hochstein & Fitzpatrick brought in 1-2 deals *each*, all large medical centers who wanted modern **IBM** mainframe software badly.

  - Lured in by a blizzard of marketing hype, sample of which follow, with absolutely *brilliant* images courtesy of Izzie Lifshutz, and demo'd into submission by Gershon & Dale Finklestein.

  - Wined & dined by me and the reps all over NYC – *was there ever a better place to lure prospects to?* I think I saw Cats 12 times that year, and had a table in my name at Mama Leone's!

  - Convinced by Heshie & his technical geniuses that a translation program *would* work, and yield an instant modern HIS for IBM mainframes, on-line, real-time, db, programmed in a 4GL!

  - And all at a time when mainframe COBOL code and VSAM files were seeming hopelessly obsolete – time for change!

Samples of Our "Shtick"

- Stunning 2-page ad in HFMA's Journal, which got me an interesting letter from IBM's attorneys for using their logo without permission...
    - *(sad to see the World Trade Center – we took countless prospects to dine at the Windows on the World...)*

- Some of the many give-aways from our booths at the AHA, HFMA, NEHA, Mid-Atlantic and IBM's ECHO conventions - no HIMSS back then in 1982 – 1984, the years of our launch.
    - And on the following page, some great text from this brochure:

Brochure Text

- Summed up our whole story in 2 concise pages:

COMPANY FOUNDATION
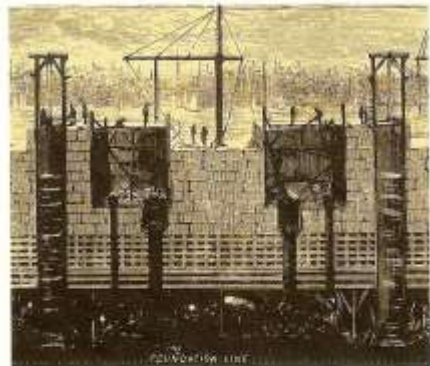
Laying the foundation of the Brooklyn Tower, 1870

Incorporated in July, 1978, HIS is dedicated solely to providing state-of-the-art data processing systems to healthcare institutions. Our staff has grown to 140 individuals serving over 50 hospitals, nursing homes, and home healthcare agencies. The HIS System bridges the gap between IBM mainframe hardware and healthcare software, and between user needs and data processing capability.

A publicly-held company since November, 1980, HIS maintains corporate headquarters in Brooklyn, New York, and regional offices in Atlanta, Chicago, and San Francisco.

SYSTEM ARCHITECTURE

The imposing double Gothic arches, 1875.

HIS has incorporated a number of key design philosophies into its hospital information systems. These include:

- Automation of clerical, administrative and management functions
- User-oriented online interaction
- Parameter-driven, flexible design
- Modular structure and implementation
- Database integration
- Security and auditability
- Fourth-generation software tools

The HIS System is a proven, operational tool that has shown itself to be highly reliable and effective in a broad range of healthcare facilities.

APPLICATION SOFTWARE

Suspending the floor beams, 1880.

The HIS Financial Information Management System encompasses the following major applications:

PATIENT ACCOUNTING

- Online ADT
- Medical Records
- Inpatient Billing
- Outpatient Billing
- Accounts Receivable
- Automated Dunning System

GENERAL ACCOUNTING

- Purchasing and Inventory
- Accounts Payable
- Payroll and Personnel
- Fixed Assets
- Preventive Maintenance
- General Ledger

A powerful Report Generator allows the individual user to specify and produce single or cross-application reports without requiring detailed technical knowledge. A Screen and Program Generator permits rapid generation of entry, inquiry and update applications from user functional specifications.

PERSONAL COMPUTING

First man to cross via traveler rope, 1876.

HIS has also bridged the gap between mainframes and microcomputers. The IBM Personal Computer has been fully integrated into the HIS System:

- As a 3270-type terminal to the HIS mainframe system
- For downloading summary data from the mainframe for use by flexible software packages available on the PC. Data can be interactively selected by the user and obtained in user specifiable form
- As an intelligent data entry device to edit information entered offline and transmit the edited data to the mainframe
- As a standalone processor for a variety of local applications

ONGOING SUPPORT

Clearing the Brooklyn anchorage support, 1877.

A key philosophy of HIS is ongoing service and support. This philosophy is implemented through a family of services including:

- Telephone hotline support
- Remote diagnostics and correction
- Comprehensive documentation and update service
- Trained installation and field support staff
- Ongoing software releases and enhancements
- On-site training and user seminars

IBM ENVIRONMENT

The nation celebrates bridge opening, 1883.

- Available on the entire range of IBM mainframe CPUs:
  IBM 4300: all models
  IBM 303X: all models
  IBM 308X: all models
- Utilizes IBM 3350, 3375 or 3380 disk drives
- IBM 3278 or 3279 terminals, or the IBM Personal Computer
- Available under both MVS and DOS utilizing CICS and ACF/VTAM
- Utilizes VSAM and supports database interfaces to IMS, IDMS and Adabas
- Fully compatible with IBM's PCS/ADS, Patient Care System/ Applications Development System

HIS

HEALTH INFORMATION SYSTEMS, INC.
4522 Fort Hamilton Parkway,
Brooklyn, New York 11219
(212) 435-6300

OFFICES IN: Atlanta, Chicago, San Francisco

So What Went Wrong?

- Why didn't HIS Inc. become as successful as Epic is today? Two things conspired circa 1984 *(and **not** George Orwell!)*
  - Late Programming – as brilliant and hard-working as they were, the programmers just kept taking longer and longer to finish and de-bug the translator code and resulting PL/1.
  - Competition – a number of other firms saw the need for modern software for IBM mainframes, and jumped in too:
    - **IBM** announced their PCS/ADS/Patient Accounting at their ECHO conference, and the lemmings rushed to them…
    - **SMS** announced "**SURPAS**" (**S**MS' **U**ltimate **P**atient **A**ccounting **P**ackage), which never saw the light of day…
    - **Medicus** spun off Medipac into a separate company named MediFlex, which started selling mainframes aggressively…
- Stay tuned next week for HIS Inc's denouement, rebirth, and survival *to this day* in dozens of large NYC medical centers!

"H.I.S.-tory"

by Vince Ciotti

Episode # 32:

HIS, Inc.

Part 3

A TREE IN BROOKLYN

REBORN!

Betty Smith
read by Anna Fields
Unabridged
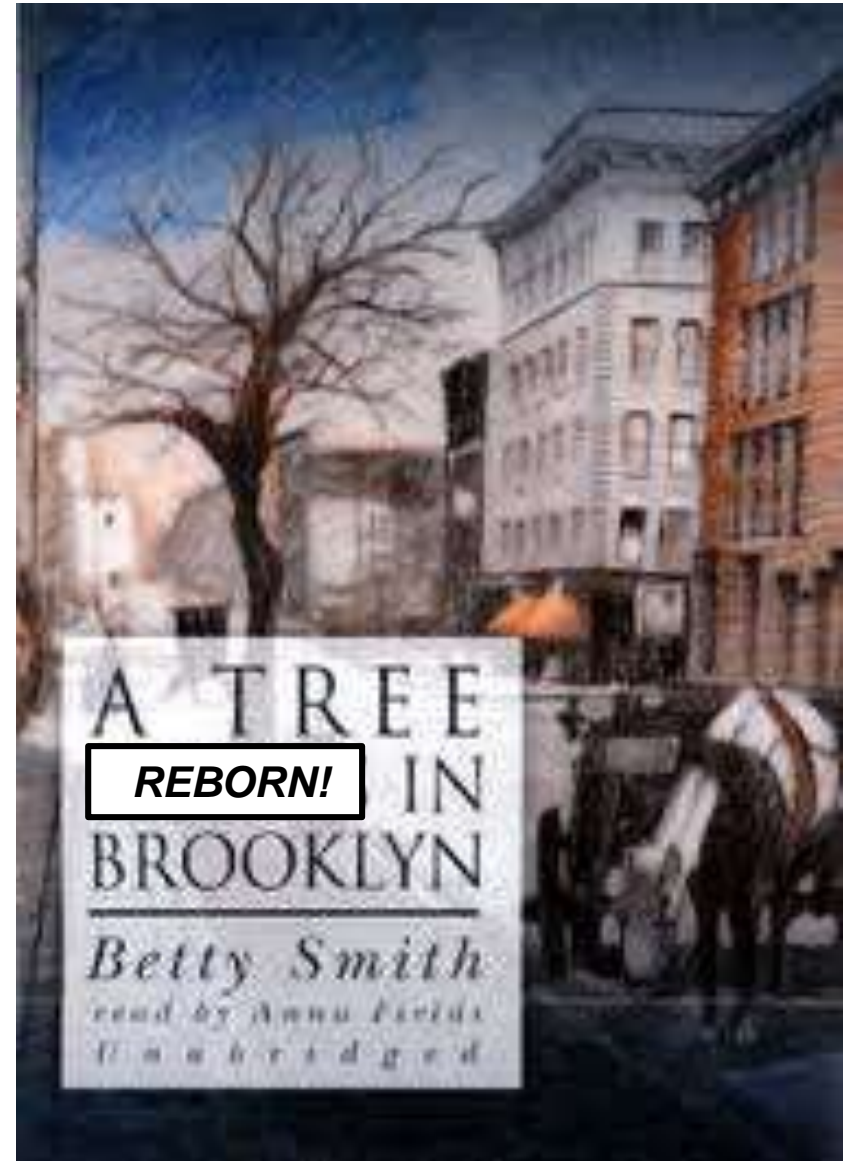
So Who Shot John?
(er, rather, HIS Inc…)

- Last week we got to the point where the original HIS Inc. was hurting, due to the same problems that plague many new products (think Paragon in 1996 or Soarian in 1998 – a *decade* before being finished!):

    - <u>Late programming</u> – no matter how many and how bright, programmers always deliver late…

    - <u>Bits & pieces</u> – when code finally comes, it's in a series of releases and modules spread over years…

    - <u>Frustrated clients</u> warn prospective buyers not to fall for the same story they bought…

    - <u>Worst – they hold back payments</u>! No matter what the contract says, at some point, they stop writing checks and cash flow at the vendor shrivels…

Bits and Pieces
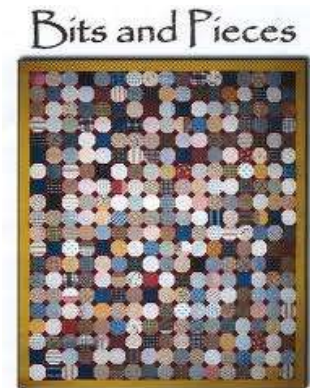
Change At The Top

- Like a true scumbag, I saw the handwriting on the wall and bailed out early, just not up to the challenge of all these obstacles.

  - Sales was just not my thing – marketing, yes, but closing deals, no. So I joined Sheldon I. Dorenfest & Associates (SIDA) and found my niche in HIS consulting, learning from the master!

- Who took over after I left? Another irony in the HIS world, the same guy who seemed to be dogging my feet at both SMS and McAuto, and an earlier HIS-tory Hero from Gerber/Brehm:

  ## Bill Brehm!

  - One of the *nicest*, hardest-working and smartest guys in the business with an amazing track record of over 30 years.

So Close!

- Under Bill's tutelage, HIS Inc. made even greater strides, as more PL/1 code was translated, and modules completed.

- HIS Inc. even started work on a *clinical* suite to compliment their excellent financials…

- But even Bill's talent and leadership couldn't overcome the greatest challenge: Wall St!

- Like Sentry Data in Chicago, HIS Inc was publicly held, and their stock rode the bull/bear roller coaster (sound familiar today?)

- Prospects got nervous as the stock wavered, investors got nervous as sales declined…

- The sad denouement: in 1987 HIS Inc. declared bankruptcy under Chapter 7.

A Phoenix Rises!

- George Weinberger just would not give up, however, and he went to the bankruptcy auction and acquired the PL/1 software at a bargain price – who else would bid?

- Corralling together the same group of Brooklyn-ites who had started HIS Inc. in 1978, he tried again in 1988!

American Healthware
Systems Inc
★★★★★

4522 Fort Hamilton Pkwy
Brooklyn, NY 11219
(718) 435-6300

GET MORE INFO AT WIMGO!

wimgo

  - Heshie, Gershon, Bert, Dale, Izzie, etc.

- To disassociate themselves from the old firm, they named their company "American Healthware" and wisely concentrated in the NYC market *only*, forgetting dreams of national prominence.

- To reinforce the fact that the product was finally completed this time, they named it "Eagle" and launched an ad campaign claiming:

  - *"The Eagle Has Landed!"*

Third Time's a Charm!

Joseph A. Smith

- Heading up sales & marketing this time around was **Joe Smith**, with decades of experience in HIS at:
  - Continental, McAuto and Systems Associates (SAI)
- Hard work and chutzpah finally paid off as one large medical center in NYC after another bought Eagle due to its ability to handle NYC's challenging third-party regulatory environment.
  - Remember, no "*Uniform* Billing" (that great oxymoron) back then – it was every intermediary for themselves, and both NY City and NY State made IP & OP billing a nightmare!
  - The boys from Brooklyn mastered it superbly, having *one* state to master, leaving the other 49 to other HIS vendors.
- Their client list read like the "who's who" in NYC:
  - Montefiore Hospital, NYU Medical Center, Columbia-Presbyterian, St. Lukes-Roosevelt, Mt. Sinai, etc, etc.

Forethought!

- Joe's team came up with this amazing ad – first time anyone ever used the phrase "2000" for an HIS product, about a decade before it became de rigueur in HIS circles circa Y2K.

- Eagle sold so well in NYC even beat SMS' superb sales machine often in the large hospital NYC market so close to Malvern…

- So what did SMS do?

If You Can't Beat 'em, *Buy* 'em!

- Just before being bought itself by Siemens, in 1997, SMS bought American Healthware for, are you ready? Remember:

  - The firm went bankrupt as HIS Inc., in 1987…

  - Bill Brehm & I could not quite make it work…

  - George bought the code at a Chapter VII auction…

- So how much money did George get from SMS for American Healthware just 10 years later? Read the press release yourself:

  - "Malvern-based Shared Medical Systems Corp. has acquired American Healthware Systems Inc. of Brooklyn, N.Y., in a stock deal valued at about ***$68.91 million***. American Healthware provides financial information systems and outsourcing services to 21 of the largest hospitals in New York. Shared Medical, a $767 million provider of health information systems, will buy American Healthware in exchange for 1.25 million shares of SMS stock."

- So there you have it: a mini system morphed into a mainframe!

  - To this day, the "Eagle" PL/1 software still runs in *dozens* of NY hospitals under the Siemens banner – an amazing HIS-tory!

"H.I.S.-tory" by Vince Ciotti

Episode # 33:

The CHARLATANs

HIS Consultants Part 1

I thought we were doing Minis!?

- We *were*, but with <u>HIS Inc,</u> that 3rd epoch is now done.

- And before moving on to Micros, time for a little diversion into a field that has become so big, it just can't be ignored in the HIS-tory of HIS: **consulting firms.**

- And, since I are one, I thought it would be fun to poke a bit of nastiness the monsters in this field are guilty of, and recap the careers of some of the early pioneers.

- Unlike many modern "consultants," some of whom are too young to vote, the *original* HIS consultants were true mavens who knew more than, well, these folks pictured on the right:

  - Don't recognize the faces? Well, hang on, you'll get to meet the Newtons & Galileos of HIT consulting, up close & personal…
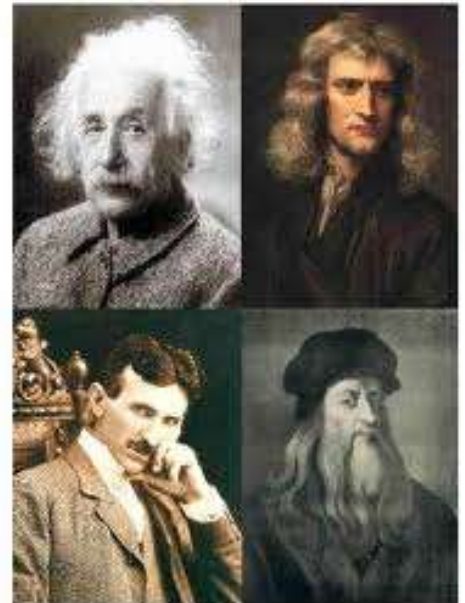
Consulting "Epochs"

- Just like the 4 epochs of HIS systems (mainframes, shared systems, minis & micros), there were 4 different time periods in consulting dominated by various firms:

1970s = the "Big Eight" accounting firms:

   - AA, AY, C&L, E&W, DH&S, PMM, P-W, & TR

1980s = the rise of "Boutique" firms, like:

   - SIDA (Dorenfest), Kennedy Group, Johnson…

1990s = the rise of HIS consulting "Giants:"

   - Superior, First Consulting Group, ACS…

2000s = mergers, acquisitions & consolidations:

   - Xerox acquires ACS who had bought Superior

   - Dell buys Perot who had bought JJ Wild

   - CSC acquires First Consulting Group

The "Big Eight"

- Hard to remember back in the 60s & 70s when "consulting firm" was synonymous with "audit firm!"

- The trick then was the intense inside relationship of an audit firm and their clients: any recommendations they made in management letters were hard to ignore!

In case you aren't good at acronyms, they were:

- AA = Arthur Andersen, est. 1913
- AY = Arthur Young & Company, 1968
- CL = Coopers & Lybrand, 1973
- EW = Ernst & Whinney, 1979
- DH&S = Deloitte, Haskins & Sells, 1978
- PMM= Peat, Marwick & Mitchell, 1925
- PW = Price Waterhouse, est. in 1890
- TR = Touche Ross, est. 1960

Big Eight Dominance

- Just how dominant were the Big Eight consultants back then? Check out the figures below from a study published in the early 1980s by Systemetrics/McGraw Hill (one of the few firms that competed with Sheldon Dorenfest "**Guide**," *the* early HIS bible!):

- They identified 180 firms offering HIS consulting in a survey of about 1,500 hospitals (the AHA counted about 7,000 back then), and about 1/3rd use consultants (≈500 respondents), the leaders:

  - Ernst & Whinney = 46 clients **(≈10%)**
  - Arthur Andersen = 41 clients **(≈8%)**
  - Coopers & Lybrand = 21 clients **(≈4%)**
  - Peat Marwick & Mitchell = 21 **(≈4%)**
  - Price Waterhouse = 16 **(≈3%)**
  - Deloitte Haskins & Sells = 14 **(≈3%)**
  - Touche = 8 **(2%)**, Arthur Young = 3

"The Other Guys"

- The also-rans were an odd mix of HIS vendors and "Boutique" firms:

    7 = First Consulting Group *(≈2%)*

    6 = Burroughs *(Programming?)*

    6 = Dorenfest & Associates *(≈2%)*

    6 = HMS *(Nashville, not NY!)*

    5 = HBO *(implementations?)*

    5 = SMS *("Strategic Systems Group")*

    4 = Software Services *(programming?)*

    4 = Henderman *(later bought by Dairyland)*

    3 = Computer Power *(to the people!)*

    3 = Dairyland Computing & Consulting *(today's "Healthland")*

    3 = Dakota Programs *(ran in all 50?)*

    3 = McDonnell-Douglas *(McAuto)*

    2 = William Andrews *(another early HIS guru)*

    2 = Laventhol & Horwath *(accounting firm)*

    2 = Lake Superior Software *(LSS - of later fame as Meditech's PM partner)*

Big Eight Auditing HIS Vendors

- I got my introduction to consultants at **SMS** in the early 70s as a corporate hot shot in King of Prussia where I met a number of individuals from our auditors, **Arthur Andersen**, who played major roles in SMS' fortunes and the future of the HIS industry:

  - Tom Shaffert - our audit partner, regularly brought in AA's HIS consultants to hone up on the improvements we were making to SHAS, which of course started popping up in their RFPs…

  - Lou Amoroso – as nice a guy as he was smart & hard-working, Lou turned around one of our early install debacles in PA, a giant gig that showed AA partners there was gold in HIS hills!

  - Jay Toole – project manager for AA at Chesapeake Physicians in Baltimore, where I helped them install SHAS for physician's billing, which in those ancient days were white 1554 forms.

  - Bob Flippin – one of Lou's hot shots at Altoona, who later joined SMS and became a super salesman out in San Fran.

HIS Vendors & Big Eight Firms

- When I went to McAuto in 1980, I encountered *their* auditors, **Price-Waterhouse**, who were just as smart & hard-working as AA.

- We brought them in to learn the nuances of HFC, HDC, PCS, etc., just like we had shown AA our SHAS improvements in K of P…

  - The result? P-W's RFPs started to read like McAuto's brochures, and our win rate with them shot up dramatically!

    - Was this nasty or immoral? It was ***business***!

    - Just like hospitals want physicians to refer patients to them, so they give MDs the best parking places, a private cafeteria room, etc.

    - Where does one draw the line? In consulting, it's a very murky line at best…

    - If you worked for an HIS consulting firm that specialized in implementing Meditech - just how objective would *your* RFPs be? Caveat emptor!

Denouement…

- And that, in a nutshell, explains why the Big Eight "accounting" firms all shed their consulting divisions post-Enron and SOX…

  - Even giants like Coopers & Lybrand, whose consulting division revenue was *huge*, let go scores of excellent consultants like Frank Cavanaugh, Everett Hines, & many others.

    - Who survive today as "Cardinal" or CCI…

- Ironically, AA's consulting division grew so large it had split off circa 2000 as **Accenture** *before* that debacle, and so escaped AA's demise.

- Through mergers & acquisitions, today, we're down to the "Big Four" all of whom are now re-growing their consulting divisions rapidly.

  - Again, is that kosher? Once again, it's *business*, and the four remaining auditors have thriving HIS consulting divisions...

And Then There Were…

- So how did the **Big Eight** shrink down to the "Big Four" or "Final Four" as they're known today? In a nutshell:

• First, the Big 8 became Big 6 when:

- In 1989, Ernst & Whinney merged with Arthur Young to form [Ernst & Young](#)

- Also in 1989, Deloitte, Haskins & Sells merged with Touche Ross to form [Deloitte & Touche](#)

• The Big 6 became the **Big 5** in July 1998 when Price Waterhouse merged with Coopers & Lybrand to form [PricewaterhouseCoopers](#).

• Subtract Arthur Andersen post-Enron in 2002 and you get our **Big 4.**

- Where did the name <u>KPMG</u> come from – it was not in the original Big 8!? In 1987, Peat Marwick merged with the [KMG Group](#) to become KPMG Peat Marwick, later known simply as <u>KPMG</u>.

Next Week

- The 2nd epoch of Boutique consulting firms is about several HIS-tory heroes who already appeared in several past episodes.

- How many of their names can you guess?
  - One started Compucare, one of the earliest and long-lived HIS mini-based systems (lives on as QuadraMed today).
    - No, not Ron Apprahamian, the *other* guy!
  - 2 others *both* worked at Lockheed's early MIS project:
    - And *both* formed thriving consulting firms in the 1970s…
    - One consulting to hospitals, the other to HIS vendors.
  - Another was an early client of HIS Inc., which if you remember last week's episode, was a pretty risky idea back in the 1980s…

- As always, if you have any gems about these early days in HIS (especially pictures, ads, brochures, business cards, inside dirt…)

- Please send them to *vciotti@hispros.com* or call (505) 466-4958

"H.I.S.-tory" by Vince Ciotti

Episode # 34: HIS Consultants,

Part 2: The "Boutique" Firms

So who dreamed up *that* name!?

- Well, it sure wasn't the small firms themselves, but rather the "Big Eight," who realized the word "boutique" had derogatory connotations they would like to stick on their competitors:
  - Small in size, thus raising the fear of being *too* small…
  - Specialists, so maybe not able to meet *all* your needs…
  - Feminine-sounding, not like the big macho audit *guys…*
- In fact, the small firms who specialized in HIS had much to offer:
  - They knew hospitals *only*, inside and out:
    - Not banking, manufacturing, insurance, etc.
  - They knew HIS vendors intimately:
    - The gory details of SMS, HBO, Meditech, etc.
  - Their staff were generally HIS veterans:
    - Few of the "Juniors" that populated Big 8's.
- In truth, *both* had their pros & cons, to this day…

Who Were The First Boutiques?

- There were *dozens* of HIS boutique firms formed in the 70s & 80s, that specialized in the HIS industry alone.

- Four of the pioneering firms we'll profile were:

  - Sheldon I. Dorenfest & Associates (SIDA), founded by one of the true HIS mavens…

  - The Kennedy Group, founded by O. George Kennedy, who sadly passed way too soon…

  - Ron Johnson & Associates, whose eponymous founder was an early MIS and McAuto vet…

  - Healthcare Management Counselors (HMC) a powerhouse in NYC and its suburb: Florida…

  These four all made it pretty big, giving the Big Eight a run for their money during the 80's, and many live on today, merged or acquired…

Sheldon I. Dorenfest & Associates

- I start with Shelly's firm because it's where I started consulting *myself*, way back in 1985. But SIDA itself started much earlier:
  - Remember an early HIS-tory episode on minis that featured **Compucare**? Well (as Sheldon so often starts a sentence…), it was founded in 1969 by him and Ron Apprahamian on the brilliant premise that "Facilities Management" offered the perfect partners to build an HIS: *hospitals themselves!*
    - Instead of programmers working in a vacuum at HQ trying to guess what users wanted, FM clients could show programmers on site just what they needed…
  - Sheldon sold his Compucare holdings around 1975, and started consulting to both vendors *and* hospitals.
  - He offered hospitals the usual MIS Strategic Plans, System Selections, Installation assistance, etc.
  - But it was his offering to *vendors* that really shone:

Sheldon Dorenfest

The Dorenfest "Guide"

- I first encountered the Dorenfest "Guide" at McAuto in 1980:

  - Sheldon contacted me in St. Louis where I was Marketing Services Manager under Art Randall. He sold us his "Guide," the first and most amazingly thorough study of the HIS industry.

  - He created it by surveying 250 "Sample Hospitals" who were either consulting clients of his, or willing to share their HIS plans, expenses, staffing, application portfolios, vendors products, etc.

    - The result was a tome as valuable as it was thick, with hundreds of tables & text covering every aspect of HIS, from clinical app soup to financial app nuts.

    - He later expanded it to cover 3,000 hospitals over 150 beds, with data stored in a custom data base that could be sliced & diced by vendor clients...

    - He eventually sold it to HIMSS in the mid 2000s, where it lives on today as their "HIMSS Analytics."

Future Directions in Hospital Information Systems

Sheldon I. Dorenfest & Associates, Ltd.
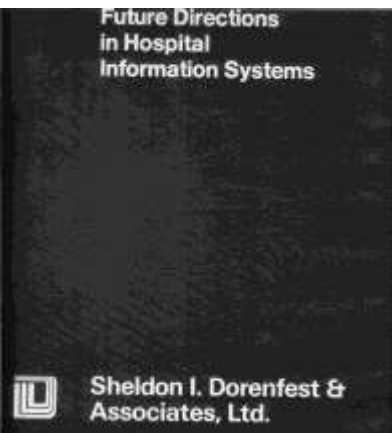
"The Kennedy Group"

- O. George Kennedy was an early member of the Technicon team – remember the pioneering MIS (Medical Information System) EMR?
  - Other early HIS-tory heroes who worked at Technicon included Dr. Ralph Korpman of later UltiCare fame, as well as the founder of our next Boutique firm who we'll meet in a few more slides…
- I first met George at HIS Inc. in Brooklyn where he visited us for a look at our mainframe software – I can still see his glazed eyes around 4PM in the afternoon after watching 8 hours of demo screens…

O. George Kennedy

- George was a Ph.D. and leveraged his deep knowledge of the HIS industry to build The Kennedy Group, founded in Chicago in 1978.
- When I left HIS Inc., I considered working for him at $400 a day (which he billed out at $800 per day) – it seemed a fortune at the time, even after the 50% mark-up! Of course, today…

Ron L. Johnson & Associates

- Ron worked at Technicon and was a McAuto super-salesman in the 1970's before he formed his consultancy.

- His claim to fame was to consult to *vendors*:
  - He wrote a series of annual reports starting around 1984 that profiled leading vendors:
    - Products, pricing, history, strategy, etc.

- I remember buying one once for some vendor, and marveling at the wealth of detail. Unlike SIDA's Guide that covered *hospitals*, Ron dug deep into *vendors*, including **strengths** & **weaknesses**.
  - Which was challenging as we vendors always felt he never had enough of our former, and far too many of our latter…
  - and vice – versa about our nasty, weak, pathetic competitors!

- But Ron always told it like it was, to his great credit, and was still working as of just a few years ago. Maybe he still is today?!

Healthcare Management Counselors

- Formed by Peter Weil & Helen Levine in '82, HMC was a dominant boutique consultancy, specializing in the demanding NYC market.

- Peter had a nice accent that lent a charming air of continental sophistication to his astute pronouncements on HIS vendors.

- Helen was an attractive and intelligent young lady in an age of male dominance, one of the first female consulting super-stars.

KSA
Kurt Salmon Associates

- Naturally, as the male chauvinist pig that I am, I got to know Helen more than Peter.

- She had worked her way up through the corporate ranks of Exxon and then learned consulting at Booze, Allen and Hamilton.

- HMC eventually merged with Kurt Salmon & Associates in 1997, ending their long run.

- Another lady super-star at HMC was Elaine Remmlinger, left, a later VP at KSA…

The "Other" Boutiques

- So who were the other HIS Boutique consultancies besides SIDA, Kennedy, Johnson & HMC? Here are a few from a 1985 study:

• Advanced Computer Services	• Computer Power	• Executive Consulting Group	• Nelson Data Resources
• Automated Health Care Systems	• Corporate Information Systems	• Health Central Inc.	• Pagnotta & Associates
• Cedar Consultants	• Dakota Programs	• Healthcare Systems Group	• Systems Management Inc.
• Computer Management Systems	• Data Processing Consultants	• Info. Systems Management	• William F. Andrews

- So, was that it, the Big Eight and the Boutiques, for HIS consulting? *Hardly!* Anyone who lost their job could hang out a shingle…

"Creative" Boutique Names

- Some of the *names* of these boutique firms were fascinating themselves! Would you buy HIT consulting from a firm named:

Advanced Concepts *(no obsolete ones)*	**Benchmark Systems** *(know where you start)*	**Cajun Computers** *(didn't sell well in Minn!)*	**Computer Sense** *(no nonsense)*
Assertive Systems *(all male?)*	**Beta Consultants** *(2nd best?)*	**Christech Consultants***(CHI/CHW specialists?)*	**Computers West** *(HQ in NYC?)*
Dakota Systems *(north or south?)*	**Cedar Consultants** *(a splinter group?)*	**Comaccounts** *(sic! Or is it "sick"?)*	**Current Company***(obsolete?)*
			Helm & Co. *(planning?)*

- I did *not* make these up! They all appear in the 1985 study from SysteMetrics, entitled the "Hospital Information Systems Profile"

More "Creative" Names

- I can't believe some of these names! If you're still out there and have grown to a $1B giant, please don't sic your attorneys on me!

- **Internally Developed** *(RFP specialists)*
- **Loeb & Troper** *(wasn't that a murder case?)*
- **Lynn Outlaw** *(Even **I** won't touch that one!)*

- **Moore Data Services** *(what they want you to buy…)*
- **Northern Data Systems** *(Cajun's Minn. Office?)*
- **Computer Network Group** *(LANs & WANs?)*

- **Oklahoma Innovative Systems** *(competes with Northern & Cajun…)*
- **Practical Health Systems** *(they'd never recommend Epic…)*

- **Scientific Analysis Corporation** *(number crunchers?)*
- **Select Systems** *(let's!)*
- **Soft-Trend** *(hardware?)*
- **Special Projects** *(generalists?)*

"Individual" Consultants

- So who were the 100+ *individuals* who hung out a consulting shingle, either trying to make it big or "in between" salaried jobs?

- Below is a very *partial* list culled from that 1985 market survey:

- ❑ Baldwin
- ❑ Bridgeman
- ❑ Charles May
- ❑ Dana Cole
- ❑ Dave Thurston
- ❑ Dennis Lincoln

- ❑ Don Culver
- ❑ Eddie Parrot
- ❑ Hal Fonturelle
- ❑ William Hamlin
- ❑ Janice Schlepp

- ❑ Joel Goldman
- ❑ John Hodges
- ❑ John Moffat
- ❑ Kermit Blake
- ❑ Klye Smith

- ❑ Joe Nadeau
- ❑ Larry Taplin
- ❑ Lynn Outlaw
- ❑ Marcia Bennet
- ❑ Ray Cragle
- ❑ Robert O'Desky
- ❑ Sofferman
- ❑ Tom Watson

- Recognize any of these names? Neither do I! But then, they probably have no idea who the heck I was (or *am*!) either...

So What's Next?

- Next week we'll profile several consulting firms that started small in the 80's (they pop up with a few clients in this 1985 survey),

- But then grew to enormous proportions in the 90's, dwarfing many HIS vendors in terms of FTEs, clients, and annual revenue!

- How did they do it? A one word answer that actually started way back in HIS-tory with **Compucare** and **Medicus**, who took *two* words to describe it in their 1970's naïveté…

- As usual, anyone with contributions, please call or write Vince Ciotti, care of the Polk County Sheriff's Department, Polk City, FL:

  - vciott@hispros.com or 505/466-4958

"H.I.S.-tory" by Vince Ciotti

Episode # 35: HIS Consultants,

Part 3: The Giant Firms

So Where Were We…

- Between Minis and Micros, we're taking a break in our HIS-tory to look at a market segment that has since grown to dwarf many HIS vendors in terms of annual revenue and number of employees.
  - If that sounds preposterous, look at Healthcare Informatics 2010 "Top 100" list of HIS vendors by revenue, you will find:

#2 = **Dell** at $2.5 **B**illion (they claim 50% of that is "services" or consulting)

#6 = **CSC** (Computer Science Corporation) = $1.6 **B**illion (*all* "services" or consulting, no hardware)

- That makes these firms *twice* as big as **Epic**, with a mere $650 **M**illion, and HI doesn't even list giant **Xerox** (ACS)!?

  - So how did boutique consulting firms like SIDA & HMC ever get that big? Read on…

It Started in Brooklyn…

- Allow me a *personal* digression to get to the start of one of these monsters from my last episode on Minis: **Healthcare Information Systems, Inc**.

- You may remember HIS was selling a system that didn't exist – a daring idea back in 1982, but a little more de rigueur in these "visionware" days.

- You may remember Dick Schopp, an ex-McAuto super-salesman who ran the Midwest territory

- Dick sold our non-existing IBM mainframe system to several large hospitals in Indiana, who were eager to obtain software as modern and powerful as their IBM 4300 mainframes.

- I met many of their DP people (no "IT" then) who came to Brooklyn to hear our HIS Inc. pitch…
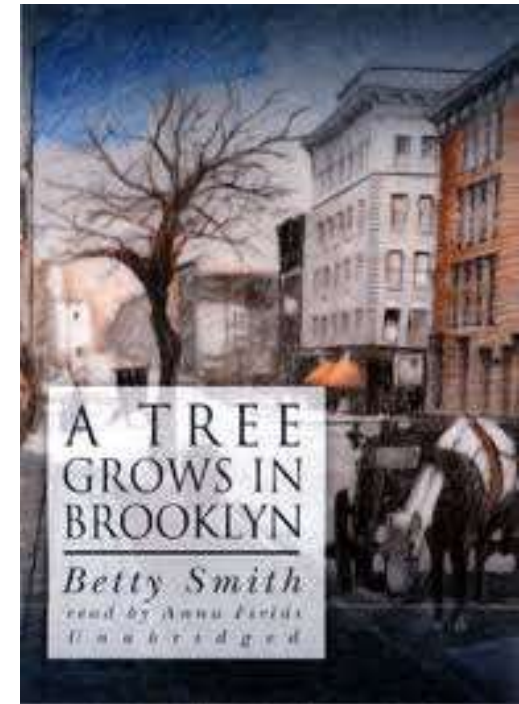
A Word To The Wise…
(from the not-so-wise!)

- Fast forward a few years to circa 1984, and I was now working for Dorenfest in Chicago as the "Interim President" of **Sentry Data Systems**, the bankrupt mini vendor Sheldon & I were trying to sell.

- I can still remember sitting in Gerry Mathis' old office one cold day when the phone rang and it was a guy from one of Dick's **HIS Inc** Indiana sales: a very bright, young **IBM** guru named <u>Rich Helppie</u>.

  - Seems Rich had moved on from his hospital after **HIS Inc** failed to deliver, and was starting his own consulting firm called specializing in **IBM** systems.

  - I remembered Rich as a very sharp & capable guy, and so gave him my honest advice: ***don't do it!***

  - Back then in the mid-80s, the Big Eight reigned supreme, and boutiques like SIDA got the crumbs.

  - Rich thanked me, but stuck to his **IBM**-based plan.

SENTRY
saves
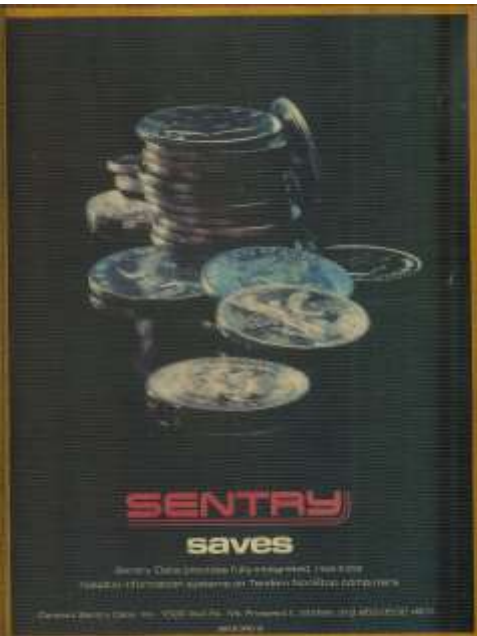
Superior Consultants

- ***How dumb I was!*** Rich went on to sell tons of PCS/ADS (Application Development System) gigs, despite my ignorant advice, and did *very* well, dominating the field

- IBM mainframes dominated the LARGE hospital market, who had the bucks to buy mucho consulting.

- Rich's firm, *Superior* Consultants, earned their name!

    - Remember from previous HIS-tory segments, IBM not only dominated mainframes back in the 70s, but it's Sys 34, 36 and 38 minis dominated minis in the 80s as well.

    - So Rich wisely expanded from IBM 43XX and 30XX mainframes into their Sys 3X minicomputers as well.

    He also expanded from purely technical consulting (programming & operations) into strategic consulting: strategic planning, system selections, installations, etc, and stated covering *all* HIS systems, not just IBM.

Amazing Growth!

- Just how big did Superior Consulting get to be? Check the math:
  - In 1984 when I got my call, Rich started out as a 1-man band, like so many of the "hang a shingle" guys we profiled last week
  - At its peak, Superior employed over **1,400** people, had annual revenues of $**149M**, serving **3,000** clients in all 50 states…
  - That's an annual growth rate (CAGR) of about 50%!
- With those kind of numbers, no wonder Superior went public in 1996, following the typical HIS vendor route for cashing in chips.

  - In 2004, Superior sold to competitor ACS for **$95M**

    - Who was ACS (Affiliated Computer Services)?

  - And how big did Superior Consulting grow that fast?
    - The answer to both $64,000 questions (remember that TV show?) is the subject of the next episode, which also has its roots in an earlier HIS-tory…

"H.I.S.-tory" by Vince Ciotti

Episode # 36:

Consultants, Part 4:

Outsourcing

IT Leading as Most Active Area of Outsourcing

All Others 22%

IT 28%

Administrative 9%

Finance 11%

Sales & Marketing 14%

Human Resources 16%

The Next Big Thing

- Remember back to when Sheldon Dorenfest formed Compucare, with the same idea as a 1970's consulting firm named Medicus:

  - <u>Facilities Management</u> – or FM as it was known in the '60s

- In essence, managing a hospitals DP shop by professionals who could get the job done better and faster than hospital FTEs…

  - (Even though the same DP people worked for both!)

- IN 1989, **IBM** shocked the IT world announcing it was both building *and managing* a brand new data center for Eastman Kodak (get the picture?) They called it:

  - *OUTSOURCING* – a much more ***modern*** concept…

- Why, there are so many ways that modern outsourcing is so far superior *(pun intended)* to old-fashioned "FM," that the entire next slide is devoted to covering the intricate and subtle differences:

Differences between FM and Outsourcing

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How Did Outsourcing Spur Growth?

- Check this math out for yourself:
  - Our tiny little "HIS Pros" consulting firm has 6 FTEs and does about a million a year in annual revenue – *pretty puny, huh?*
  - Who would ever buy us, or how could we ever go public??
- Let's say we outsource the IT shop at one of our client hospitals, a community hospital of 250 beds with an IT staff of 20 FTEs.
  - The average IT person makes, say, $75K per year, including benefits, so say their IT salary budget is around $1.5M/year.
- We assign one of our people to be the "Account Executive," and take their entire staff onto our payroll, plus a profit of 20% for about $1.8M/yr
- We are now almost 3X as big as we were, and that's only *one* deal! Plus, the many add-on gigs they'll need us for: planning, audits, MU, etc.
- *2 or 3 of those deals and we're $10M or more!!*

$$A = B$$
$$AB = B^2$$
$$A^2 - B^2 = A^2 - AB$$
$$(A+B)(A-B) = A(A-B)$$
$$(A+B) = A$$
$$A + A = A$$
$$2A = A$$
$$2 = 1$$

Growth of HIT Outsourcing

- So outsourcing can balloon a "consulting" firm's revenue enormously, which is just what Superior, FCG, ACS, Perot, et al, started to do as outsourcing gained popularity in the 1990's.

- Not only "consulting" firms jumped into this enormous revenue gravy train, but HIS vendors and auditors firms jumped in as well.

    - I can still remember arguing with a Siemens rep that their "RCO" was *not* outsourcing, and her vehemently going through the logic that it **was**, since the data center (and all those operators) were now theirs!

    - But no matter what was outsourced - the data center, the CIO, or the whole shop – the entrée was superb.

- Once a good "account executive" got their foot in the door, there was no limit to what they would find in terms of other consulting opportunities: strategic plans, system selections, implementation assistance – and all from the hospital's new "partner" – no bids!

Many Outsourcing Hats

- Superior grew phenomenally during the 1990s and 2000's, eventually being bought by **ACS** in 2004 for $8.50/share or $95**M**!

  - **Affiliated Computer Services** - had actually started outsourcing in many other industries before acquiring Superior:

    - Communications, Finance,

    - Higher Education, Insurance,

    - Manufacturing, Retail, Shipping,

    - Logistics, Travel Services,

    - Transportation, etc.

      » I first ran across them at UHHS in Cleveland, where Ed Marx had done a super job of managing their outsourcing to strict SLAs (Service Level Agreements)

      » After buying Superior, ACS' acquisition act got *copied* by, well, who else copies well? To the tune of $6.4**B!**

Office Laser and
Multifunction Printers

Just *How Big* Has Consulting Grown?

To have an appreciation of just how big the giant consulting firms have grown, primarily through outsourcing and implementations *(gee, isn't that what hospitals pay **vendors** to do?)*, check out this math:

- **Per Health Data Management, HIS *vendor* revenue for 2010:**
  1. **McKesson = $3.1B**
  2. **Cerner = $1.8B**
  3. **Siemens = $1.5B (est.)**
  4. **GE = $1.3B**
  5. **Epic = $800M (est.)**
  6. **Allscripts = $704M**
  7. **Meditech = $459M**
  8. **NextGen = $292M**

- **Per Healthcare Informatics 2010 Top 100 HIS Vendors (sic):**

  #2. Dell (Perot) = $2.5B

  #8 CSC (FCG) = $1.3B

  (Xerox isn't mentioned…)

- **Per Modern Healthcare for "provider" consulting 2010:**

  #1. Deloitte = $372M

  #6. ACS = $123M

  # 8. E&Y = $102M

***Wow**, hard to tell one column from the other in terms of revenue!!*

Lessons For Today?

- We've come a long way from the good old days when Sheldon, George and Ron hanging out a shingle as early HIS consultants. Some thoughts if you considering engaging a consulting firm based on this brief walk down memory lane; check out their:

  - Education/*Expertise* - George was a PhD, Sheldon and Ron literally wrote the book - don't pay to train anyone's rookies!

  - *Vendor* Experience – George, Ron & Shelly all started their careers working for vendors, so they knew their tricks!

  - *Temporary* Assistance – hire for a specific project, not as "partners," then show them the door.

  - *Reasonable* Fees – most community hospital projects should cost thousands, not millions…

  - *Conflict* of Interest – if consulting firm **A** also specializes in implementing vendor **B**, guess who they're going to recommend? Caveat Emptor!

The Perfect Consultant

ALL YOU NEED TO GET IT RIGHT FIRST TIME

"H.I.S.-tory" by Vince Ciotti

Episode # 37:

XMAS at the Vendors

How Vendors Celebrated XMAS

- Since it's the holiday season, let's take a break from all this high tech & business stuff to look at the *human* side of HIS vendors.

- How various HIS vendors celebrate Xmas through –

  - ## *PARTIES!*

- Yes, despite the bottom-line profit motivation and 90-day earnings-per-share pressures, vendors are extremely old-fashioned when it comes to Xmas, and their parties reflect their culture. The vendor Xmas parties I remember most fondly were:

  - **McAuto** – an office "open house" where you took the kids.
  - **HIS Inc.** – families too, where my son first played video games!

- But there is one vendor in particular where no one would dare think of bringing their kids to the wildest Xmas parties of all!

  - Indeed, some thought twice about bringing their spouses to:

SMS' *First* Xmas Bash

- Way back in 1969, SMS' first year, the firm was still pretty small (under 50 FTEs), and there was no Xmas "tradition" yet…

- We were all based in King of Prussia (only 1 regional office in LA), so when a Xmas party was announced, it drew *everyone*!

- It was held at the Valley Forge Tavern (which later blew up when a boiler exploded!) in KOP, our favorite watering hole for lunch, and in late Dec., SMS rented out the whole joint for the party.

Pictured on the left are two young IDs couples decked out in their finest:

- Me & my unfortunate wife Judy

- Virgil Scott & his lovely wife Carolyn

These were *actual* period clothes, not costumes! 3-piece suits were just coming into fashion back then…

You had to be there…

- VP John Marshall picked up the mike and gave out Xmas presents/awards to our two founders:

  - Jim Macaleer, our President, was given a gift for the "Longest Hair Award" – a little odd as you can see by his distinctly non-hirsute appearance! He proceeded to unwrap the package only to find a *comb* inside. Silence reigned in the hall…

    - Harvey Wilson, Sr. VP and sharp dresser, next got a gift for the "Loudest Tie Award" – a pair of *scissors,* which John removed from the box and then used to cut Harvey's tie in half! Everyone roared…

- We all expected the worst, but Jim & Harvey just joined in the laughter, enjoying the jokes & banter.

- John's daring sense of humor started me thinking…

My Turn Next!

- One of the most popular TV shows back then was the Dean Martin "Roast" series, in which a bunch of stars & comics sat behind a long table and took turns giving mock tributes to one of their peers, who became the object of the insults & nasty jokes.
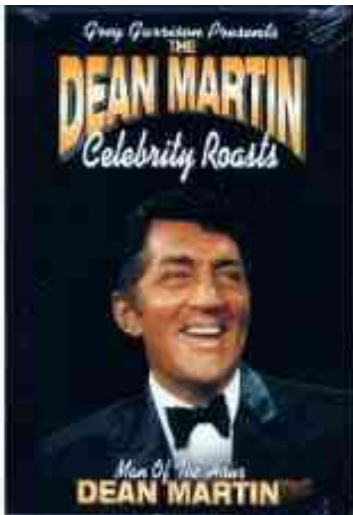
- After being soundly "roasted," the poor target was then given the mike, and he/she lashed back at the roasters, usually giving as many mean/funny insults as they received, many even nastier…

XMAS Party Idea!?

- So my warped brain dreamed up a theme for a later Xmas party in K of P, a few years later, after SMS had grown to over 100 FTEs.

- One day, I approached Big Jim with the idea of a group of us mimicking Deano, and roasting him at our upcoming Xmas party...

  – (remember, I was *very* young and even *dumber* at the time...)
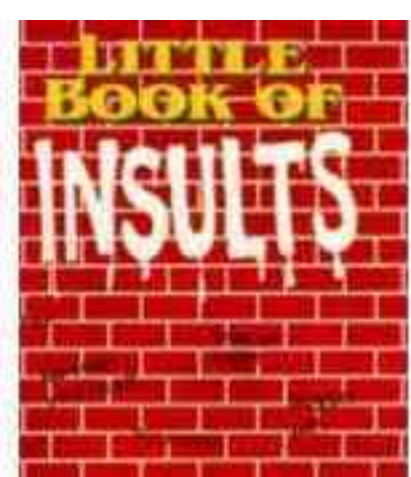
Knowing that Big Jim would probably be the recipient of some pretty barbed wise-cracks (especially from his younger brother Terry who I had on the dais),

I tried to salvage what might be left of my career by giving Jim a book I had found chock full of insults.

I even gave him a list of the "Top 10" to use on us...

- I don't know how many of today's image-conscious CEOs would have acquiesced to being roasted in front of their entire firm, but Big Jim was never one to shy from a fight, and to my amazement, he agreed! He kept the "Little Book of Insults" & my top 10 list...

The Big Night

- So as the night of the Xmas party rolled around, I assembled a dais of fellow King-Of-Prussians who also has sufficient chutzpah (and lack of intelligence) to dare to insult "the man" – our president

  (from lefty to right on the photo on the following page):

  - <u>Jack Gontarz</u> – Admin. Mgr., in charge of keeping the lights on

  - <u>John Marshall</u> – VP of Marketing and our Master of Ceremonies

  - <u>Yours Truly</u> – looking every bit the weird hippie freak I was…

  - <u>Big Jim</u> – smiling in advance of his chance to play tit for tat!

  - <u>Bill Bardwell</u> – a super-smart programming manager

  - <u>Terry Macaleer</u> – Jim's younger brother, famous for being his wise-cracking ways even in supposedly formal settings…

- It may not look as posh as Dean Martin's roast, but we sure had the audience's attention as one after another, we started to dig into our poor President with some of the nastiest insults imaginable.

SMS XMAS Party HIS-tory

Big Jim's Revenge

- One after another, we ripped into Jim big-time, assailing his:
  - "Consideration" for calling meetings at 6PM on Fridays…
  - Wide variety of shirts (white), ties (blue) and shoes (wing-tip)
  - Willingness to hear the other side (before saying "Hell no!")
- Terry Macaleer was absolutely the nastiest, digging up stories from their childhood that would have made their mother cringe!
- Through it all, Jim joined in the laughter as we all shot our wads, and then he took the rostrum and proceeded to give even better than he got! Apparently, he got the names of our "roasters" beforehand, and did some through homework on our foibles.
- Surprisingly, he didn't use any of the insults from the little book I had given him, but instead hit each one hard with his own digs.
- Until he got to me: *then,* he unleashed the very nastiest insults from the very book that I had given him to use on the others!

Baddest of the Bad

- No one else in the company knew the inside joke, as Jim hit me with the very "Top 10" list of insults I had given him to use on everyone else. Some of the best (or is it worst?):
  - **A demitasse would fit your head like a sombrero.**
  - **A guy with your IQ should have a low voice too!**
  - *A half-wit gave you a piece of his mind, and you held on to it.*
  - **A sharp tongue is no indication of a keen mind.**
- He saved this nastiest one for last.
  - (By way of background, I was the Education Manager at the time, responsible for training new IDs (Installation Directors) & clients in the minutia of the SHAS system; add that to my obnoxious know-it-all personality and you'll get the point)
  - **"Vince Ciotti: there but for the grace of God, goes God!"**
- The audience *roared*, while I shrunk very low in my chair…

"H.I.S.-tory" by Vince Ciotti

Episode # 38:

The Micro Revolution

Apple Tackles Healthcare Market

At the 1988 American Hospital Association (AHA) convention in New Orleans, LA, this past August, Apple Computer, Inc., debuted its Macintosh computers for the healthcare market. Apple has recruited more than 40 Value Added Resellers (VAR) and developers of medical systems. Many of these vendors were demonstrating their systems at the show.

John Luff, who previously consulted at Deloitte, Haskins & Sells and Arthur Andersen & Co., has come on board as Apple's healthcare market manager. Luff believes that the first 40 VARs are just the very beginning of a long list of vendors who will offer Apple's Macintosh as a platform to both hospitals and clinics.

"We feel Apple can make a meaningful contribution to providing better tools for the healthcare profession, which, in turn, leads to better patient care," Luff said. "We also see tremendous growth potential

John Luff

Micros Go Macro

- Hope you remember this picture from our introduction last year, about how the 4 epochs of computing in healthcare *overlapped*:
  - None totally *replaced* the other, they just rose & fell in terms of popularity ("the new thing") and market share over time.

	60s	**70s**	**80s**	**90s**
Mainframes (eg: IBM, "BUNCH")	++++	+++	++	+
Shared (eg: Blues, State Assoc, Commercial Firms…)	++	++++	+++	++
Minicomputers (eg: DEC, DG, HP…)	+	+++	++++	+++
Microcomputers (eg: Apple, IBM…)		+	++	+++

Early Microcomputer Development

- The roots of microcomputers go back surprisingly far in the 1970s:
    - 1971 = first ads for Intel 4004 chip
    - 1972 = MITS offers Altair 8800 kit
    - 1973 = Xerox's PARC "Alto" project
    - 1974 = Simonyi's "Word" Processing
    - 1975 = Microsoft's BASIC for the Altair
    - 1976 = Apple introduces the Apple 1
    - 1979 = "VisiCalc" spreadsheet for Apple II
    - 1981 = IBM "*legitimizes*" the PC…

Altair 8800

Tandy Radio Shack TRS 80

TI 99-4

IMSAI 8080

Very *Personal* Computers!

- Micros were very *personal,* as these shots of my first one shows:

  - **1981** = Our Texas Instruments 994A

    - Used an old TV as a CRT

    - Stored data on an audio cassette

    - Started my son's game addiction!

- **1984** = My brother Dave got hooked too, and showed how rapidly PCs became a *business:*

  - He later programmed an Apple II PC,

  - To weigh eggs for farmers in the Midwest,

  - That sorted eggs into grade A, B & C,

  - Which they used for about 15 years!

  - He's a PC maven at Trenton State today.

PCs in Hospitals

- PC spread into healthcare started in the late 70s & early 80s:
  - <u>Individuals</u> in Finance and ancillary departments started using them to *personalize* the data they could only obtain from an HIS system in a fixed "green bar paper" printout.
    - Using breakthrough software like **VisiCalc**, the world's first spreadsheet, written for the Apple II in 1979
      - (Microsoft's Excel came much later – 1985 for the Apple Macintosh, 1987 for Windows on **IBM** PCs)
  - <u>HIS Vendors</u> – jumped on the PC bandwagon early too:
    - George Weinberger enthralled my sales team at HIS Inc. in early 1982, taking an **IBM** PC apart in front of our eyes.
    - We then bought one for each salesman to show demo screens of our non-existent **IBM** mainframe HIS system.
      - The ultimate way to sell vision-ware: *"See!"*

Pioneering *Hospital* PC Product

- The first pure PC-based product I remember for hospitals was written by an ex-SMS salesman named **Tom Boyle** circa 1980.
  - Tom was a super-bright sales rep (as all SMS' reps were!), who targeted the dreaded SSA 2552 cost report "step-down,"
  - Which you may remember was handled by a terribly user-*un*friendly SHAS module called CAP (Cost Allocation Program).
  - It required labyrinthine calculations to allocate the costs from non-revenue producing departments to revenue depts, based on such statistics as square footage, # of employees, etc.
- Tom left SMS to develop & sell a cost report system that ran on a PC and did this horrendous math for CFOs in the blink of an eye.
  - I tried to talk McAuto into buying it in 1980, but they balked, so Tom sold it to Coopers & Lybrand who sold hundreds!
- But what about PCs and mainstream HIS systems?   Read on…

The Hardware Market

Hardware Vendor Annual Revenue

Legend: 1986 (blue), 1985 (red)

Chart Y-axis: 0, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Chart X-axis: IBM, DEC, DG, UNISYS, NCR, HP, HONEY, TANDEM
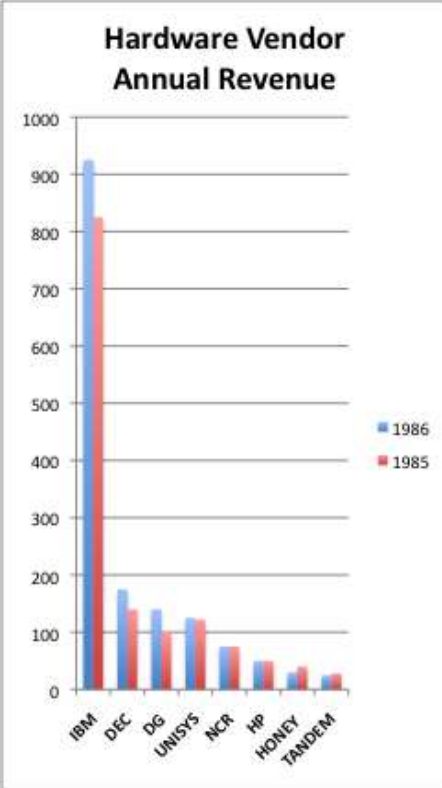
- You should remember by now how much IBM dominated the HIS hardware market back in the 70s & 80s, when PCs were introduced.

- On the left is a a chart based on figures from Sheldon Dorenfest's "Guide," *the* bible for HIS market statistics back then, which showed how IBM totally trumped the BUNCH group.

- A major thing holding back PCs from the HIS world was unknown names like Apple…

- **IBM's** 1981 introduction of their PC opened the door – now PCs were "legitimate," and hundreds of companies jumped on the Big Blue bandwagon besides pioneers like Tom.

- How quickly did **IBM** dominate the market? Check out this next slide from SIDA's Guide

Taking a Byte out of Apple…

- This graph illustrates how quickly IBM took over the PC market from early leaders like Apple & Radio Shack, based on a survey of Sheldon Dorenfest's 250 sample hospitals in his 1986 "Guide"

% of PCs in 250 Sample Hospitals by Brand
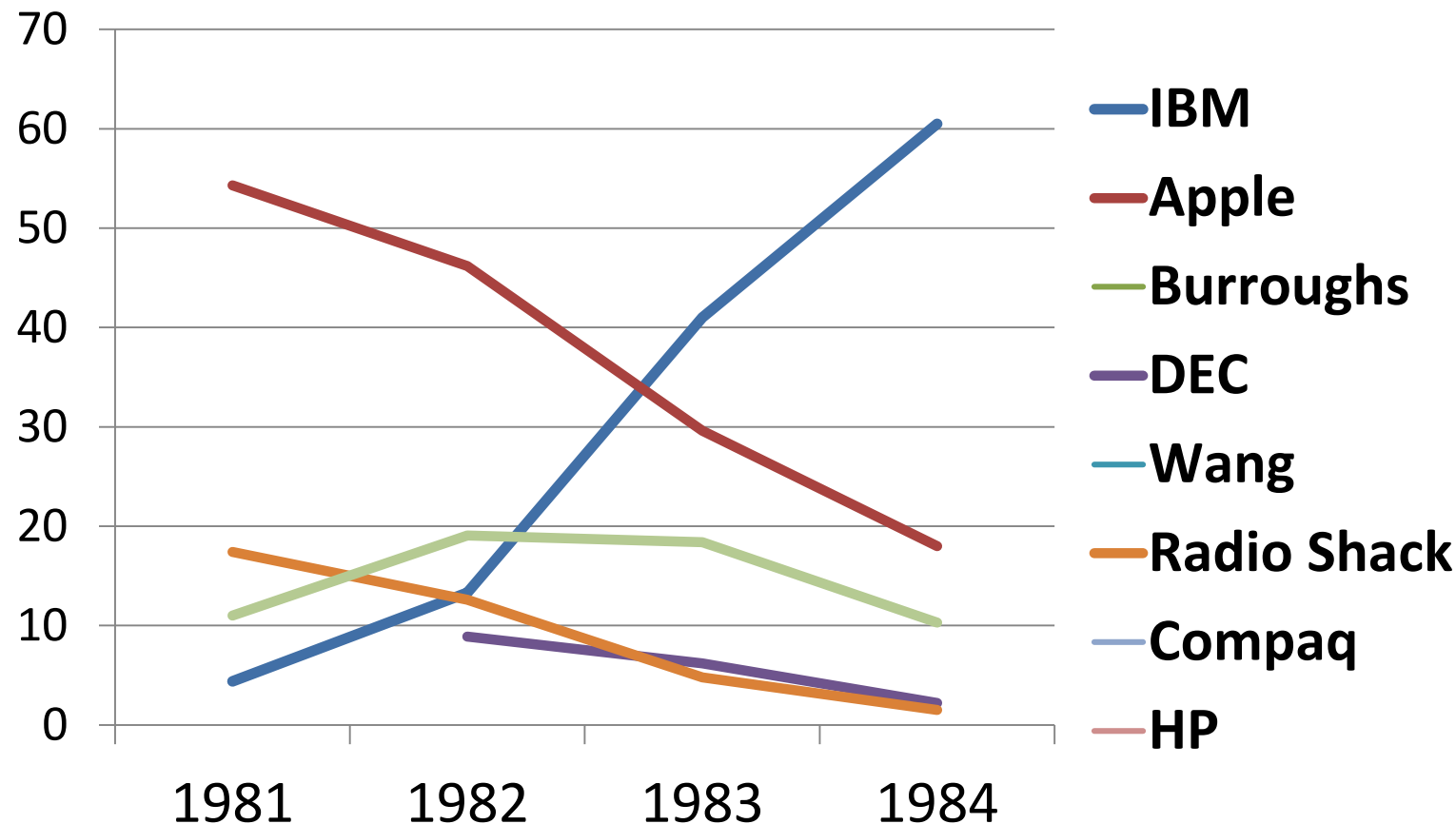
Sweet Revenge!

- Just in case you're an avid Apple fan like me, however, the chart below shows how over time the computer market reversed itself:

  - **IBM** eventually faltered to where in 1993 they posted their first quarterly loss in the ≈100-year history of this computing giant. They have since shifted much of their revenue from hardware to "services" (read: software, outsourcing & consulting).

  - **Apple** too faltered after both Steves (Jobs & Wozniak) left in the 80s, losing its consumer-centric focus until Jobs returned and started the "i-Revolution." Per the chart on the right, by 2011 Apple's stock market capitalization not only exceeded **Microsoft**, but even overtook its old rival **IBM**. For a while in 2011, it's cap even exceeded Exxon-Mobil's!

Apple, Microsoft, IBM market cap

$ - billion

Recessions highlighted

Apple
Microsoft
IBM
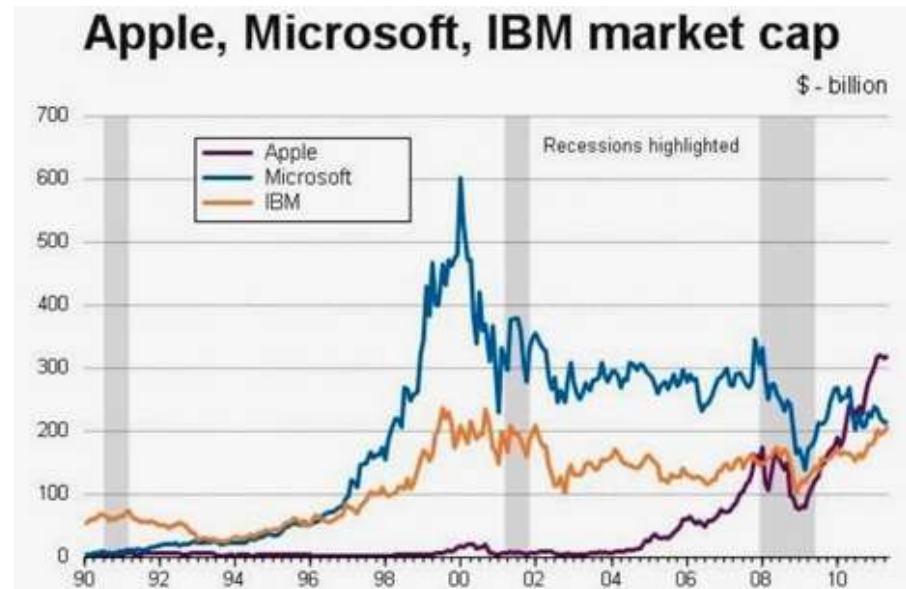
Early Micro's in HIS Systems

- During the 80s, literally *hundreds* of companies developed PC-based systems, mainly for ancillary department systems such as:

  - **Dupont's** "Trinity" RIS   - **Citation's** DOS/Novell-based LIS.

- In the next episodes on micros, we're going to dig deeper into two uses of PCs that heavily impacted the HIS industry:

- **Total HIS**
  - A vendor with a *complete* HIS on embryonic **IBM** PCs in the 80s running on DOS!

- **Bedside**
  - Micro systems broke down the doors to patient rooms, paving the way for E.H.R.s

"H.I.S.-tory" by Vince Ciotti

Episode 39A:

R.I.P:
Bill Corum
VP McAuto

William T. Corum III

Sad Day in HIS-tory…

- Received very sad new this week that Bill Corum, VP at McDonnell-Douglas Automation Company, passed away at his CA home on January 11.

- So we're interrupting our story on micro vendor HMDS to pay tribute to this truly wonderful man who left an amazing footprint in our industry.

- Computerworld – ran this brief notice on the right about Bill making VP way back in June of 1981, during my brief stint at McAuto's HSD. Bill started there in 1957 (that's 30 years with the *same* HIS vendor!) as an engineering draftsman and then advanced to Deputy Director of Computer Ops in '69. He became Manager of Tech Services in '71, the year HSD was formed. He held an MBA from California State College.

June 15, 1981

William T. Corum III

of vice-president of data services and product development for the Health Services Division of McDonnell Douglas Automation Co. in St. Louis, Mo.

Corum began his career at McDonnell in 1957 as an engineering draftsman and advanced to deputy director of information processing in 1969. In 1971 he became manager of technical services and eventually was moved up to director of all data services.

Corum received his M.B.A. degree from California State College. He was a contributing author to the book, *Information Systems Handbook*, and has published numerous papers on data processing and related subjects.

Vice President at McAuto's HSD

- Contributing author to this textbook, Bill's promotion to VP at McAuto was amazing:

- Chuck Barlow was the only other VP there, as the parent airplane firm had hundreds of VPs and was loath to let out too many titles to such a small subsidiary as HSD…

- When Chuck took ill in '81, Bill became the interim exec, and led the firm until Chick's recovery

Truly a Class Act!

- When I went to McAuto from SMS in 1980, Bill immediately impressed me as a really unique individual in the HIS world:
  - _Very_ intelligent – easily one of the smartest and most knowledgeable of the dozens of executives at SMS & McAuto.
  - Great _Leader_ – his troops would follow him off the proverbial cliff whenever he led a new program or special project.
  - Hard _Working_ – part of the "Saturday Club" which at SMS & McAuto was a small group of fools who worked Sat. AM…
  - _Nice_ Guy – considering the dog-eat-dog corporate vendor world, Bill never had anything bad to say about anybody…
- His door was always open, he listened to anyone's problems, and always offered honest and usually spot-on advice on issues…
- He car-pooled with Art Randall in a beat-up old Chevy II from their homes in Chesterfield, MO, which he drove as hard as he drove his troops! I could barely keep up with him in my Porsche…

Later Years

- When McDonnell-Douglas finally put McAuto's HSD up for sale in the late 80s, it was acquired by Systems Associates Inc (SAI), which had been acquired by American Express/First Data Corporation.

- Bill left McAuto after over 30 years of loyal service, and joined another HIS-tory hero, Dick Schopp, who you may remember from an earlier HIS-tory installment on HIS Inc. in Brooklyn, NY.

- Dick was an early sales maven at McAuto who sold scores of hospitals on HFC before joining me at HIS Inc., where he sold several hospitals on a system that didn't exist at the time!

  - *De rigueur* today, but an amazing feat in the 80s…

- When Dick left HIS Inc, he formed a consulting firm called <u>Healthcare Computing Strategies</u> (HCS) and Bill Corum, his old friend from McAuto, joined Dick as VP and together they grew the firm to over 100 employees and ≈$10M in annual revenues by Y2K.

Last Gig Together…

- Bill was so sharp that when Y2K threatened, we sub-contracted him for one of our gigs at Brazosport Hospital in south Texas in 1998.

- Bill and I had a big date with their Meditech reps one day to review Y2K preparedness, when a Tropical Storm blew in from Galveston.

- Shades of the 1915 hurricane, the Meditech reps had the sense to cancel before getting stranded down those low-lying flood plains…

- Bill & I on the other hand, ever eager for work (and a billable day!) sloughed through the storm and met at the Holiday Inn in Brazosport, having to literally wade through water in the lobby!

- Ever the consummate professional, Bill took his laptop into the hospital the next day and started his inventory of PCs while the winds howled outside! I left town early afraid of getting stranded, while Bill kept working until he got all the data needed for his report…

Requiescat in pace

- Bill retired from HCS in the mid-2000s, and suffered a number of health problems but, in his loving wife Ellen's words: "*..he once again bounced back. I couldn't tell you if he felt as good as he looked and acted or whether it was that positive attitude of Bill's shining through. In our house of yin and yang, he was the energetic, up-beat one always. For over 56 years I relied on him to keep me lifted up.*"

- Bill met Ellen when they were 15, and she has taken over the email account that Bill set up and welcomes notes, so if anyone out there who has other reminiscences about Bill, feel free to email her at:

  - *ellen@corum.com*

- Or send her a card at:

    Ellen Corum

    12420 Patricia Drive

    Cerritos, CA 90703

"H.I.S.-tory" by
Vince Ciotti

Episode # 39:

Health Micro Data Systems Part 1

VOL. 5, NO. 6   JUNE 1988

HEALTHCARE
COMPUTING & COMMUNICATIONS

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VINCE CIOTTI
CONSULTANT
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A Total HIS on a *Micro*?

- Back in the early '80s, PCs were *much* less powerful than today:
  - My first **Mac** "SE" had less than 1 Meg (not Gig, ***Meg!)*** of main memory, and *no* hard drive – I was too cheap to pay the extra $400 Apple wanted for the 10-Meg external device…
  - I/O was all via two 5½ inch diskettes holding 400K each – one for the OS, one for the App (usually Microsoft "Works 1.0").
- So building a complex suite of HIS applications on a PC was pretty daunting, and it took a pretty gutsy (dumb?) guy to dare to try it!
- Who in HIS-tory was the first to try?
- I'll give you a hint: his vendor consulting firm is known as "Kelzon," which was the name of a horse he and his lovely wife Suzanne once were very fond of, and he's a frequent contributor to HIS-talk…

Another "HIS-tory Hero!"

- **<u>Frank Poggio</u>** – was the entrepreneur who dared to do it first:
  - Frank started in healthcare in NY, first at HANYS (Hospital Association of NY State), then Peat, Marwick, Mitchell & Co.
  - With all this freezing NY experience, it is easy to understand his next move: Associate Administrator/VP at University of *Wisconsin* Hospital, (CFO & CIO in today-speak).
    - He told me a great story once how he was charged to evaluate various Medical School dept DP projects there.
    - In Psychiatry, there was a very bright programmer who was working on a grant that had just ended & needed $$$s...
    - However, the Psych system did medical research and Frank determined Medicare would not reimburse the hospital, so he did not roll the Psych application into his DP department.
    - Who was this young programmer? Two hints: (1) Her name was Judy (2) The U of W Hospital is in *Madison, Wisconsin*

PC Pioneer

- Yes, *that* Judy! So if Frank had funded her project, by today, Ms. Faulkner might have risen to be a hospital programming manager!

- Anyway, back to PCs, with Frank's background in finance, when the PC revolution hit in the early '80s, he followed the same path as Tom Boyle mentioned in the last episode, tackling the onerous Medicare Cost Report with all it's step-down & RCC minutia…

- What kind of powerful machine did he write his first system on?

- What else – a **Radio Shack TRS 80**, that came with:
  - 48K of main memory &
  - 120K diskettes for I/O.

- Don't laugh, because wait 'til you read how well it sold…

What To Call a "Micro Cost Pack?"

- Fascinating how these HIS-tory episodes link together, but remember how the "Big 8" accounting firms dominated consulting back in the 80s? Well, just like Tom Boyle had hooked up with C & L, Frank struck a deal with Ernst & Whinney in 1983 to sell his PC-based system which they called "**MicroKostpak**"

- Frank and E/W also had the sense to migrate his software to **IBM's** PC announced in 1982, expecting their market dominance.

- So how many CFOs would buy such a radical new system on a PC?

- Would you believe, over **1,000!!** It did help that E&W had many hospitals using an older time sharing cost report system.

- The influx of capital funded Frank's next dream – no, he wasn't going to buy horse farm and name it Kelzon-town, he had a bigger and far more daring idea…

Bold Vision

- Again drawing on his financial, consulting and CFO experience, Frank started programming a ***complete set of financial apps*** on a Vector Graphic Micro, pictured here:

- Check out the power this little PC offered way back in 1982:
  - 128K (**K**, not Meg!) of main memory and a 5 Meg hard drive!

- Remembering how well MicroKostpak sold on an **IBM** PC, he soon migrated his system to an **IBM** XT (with a 10 meg drive) in 1983.

  - Actually, it took ***two*** PCs for the whole system:
    - One for patient accounting: ADT, BL & AR
    - One for general accounting: AP, GL, PR, etc.
  - How did these two PC systems ever interface?

By "Sneaker Net!"

- CFOs merely took a diskette from one PC and walked on down the hall to the other where they read it in to create journal entries into the GL from Patient Acctg!

- Don't laugh: it was far more reliable than some of the interfaces I've seen today…

(the picture above shows Frank on an R&D foray near some frozen Wisconsin lakes)

- So what data base did Frank use? That's another fascinating throwback to an earlier HIS-tory episode: remember "**Unifile**," **SMS**' breakthrough "On-Line, Real Time" system that pioneered use of a relational data base, rather than IBM's "SHAS" batch-processed VSAM files?

What Do You Call a "Meta" File?

- SMS' first *technical* VP was a very bright *and* very nice individual (a rare combination in IT!): <u>Allan Sprau</u>

- Allan did a superb job of managing the evolution of Unifile by **SMS**' programmers, led by his good friend and fellow Eskimo, Ken Shumaker, also from Minn.

- Allan met Frank Poggio at frozen U. of Wisconsin Hospital, which was one of Unifile's early adopters.

After Unifile morphed into Focus and then Command, Allan left **SMS** and formed his own firm in Minn., intending to sell the data base concept to other industries needing such a "meta" file system.
He named it <u>**Metafile Information Systems, Inc**</u>, and started selling the **MetaFile** db for use on computers systems for all industries.
Frank Poggio heard about his old friend who was also freezing up in the northlands, and the rest is HIS-tory, as Frank adopted Metafile for use on the PCs in his now "on-line, real time, data base" system.

"H.I.S.-tory" by

Vince Ciotti

Episode # 40:

Health Micro Data Systems, Part 2

Early sucker… er, client

John Murphy, early employee

Frank Poggio, Founder & CEO

VOL. 5, NO. 6 — JUNE 1988

HEALTHCARE
COMPUTING & COMMUNICATIONS

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Now, Where Were We?

- We left off last week with Frank using Allan Sprau's MetaFile as his all-in-one data base and programming language (like Magic!?)

- Using it, Frank completed his suite of financial apps, and sold the system to over 35 early adopters – **HMDS** was very hot in the 80s!

- Target market was hospitals paying 6 figures *per year* to SMS or McAuto, who could buy **HMDS**' full system for 6 figures *one-time!*

- The sneaker-net interface didn't phase small hospitals at all, but in 1984, Frank went to the first true high-tech e-network:

- <u>Novell Data Systems</u> – which began life in 1979 as a computer manufacturer and maker of disk operating systems. In 1983, Novell introduced NetWare®, a LAN PC networking system that dedicated a PC to manage the network and control access to other PCs, disk drives and printers.

What's In A Name?

- Purists out there might scoff at the notion, but this was probably the first true "Client/Server" HIS – you techie purists be darned!
  - For sure, it was more of a C/S than what Meditech's C/S today, which merely uses Windows servers to "front-end" Magic.
  - Frank had only *one* data base (MetaFile) – no "front end games" - and an LAN (Novell) connecting his PCs. Programs ran on the "intelligent client" PCs, data was stored on the server.

- **HMDS** added apps to make a full HIS: - First, adding a real-time ADT (no shared system periodic "updates"), Medical Record Abstracting, DRG assignment and Case Mix analysis. Typical configuration was an IBM-AT server with 6+ IBM PCs user devices, like that pictured on the right:

A "Total HIS" on Micros!

- Then in 1988 **HMDS** Introduced a complete nursing station system for orders and results back to ancillaries. Expanded to a full nursing care documentation system in 1990, including real time critical care paths with automatic ancillary service requests.
  - Pilot HIS site was 80-bed <u>Neilsville Hospital</u> in Wisconsin…
- By 1992, **HMDS** was installed in over 120 hospitals around the US and Puerto Rico, with bed sizes ranging from 10 to 130 beds.
- Headquartered in glacial Madison WI, with more than 40 frozen employees in the home office and some warm sales and support FTEs in CA, TX and GA, **HMDS** grew to $3.7 million a year annual revenue, strictly with a *microcomputer* based HIS for hospitals!
- Early standout employees who survived Madison winters include:
  - <u>John Dwight</u>, who went on to be CIO at Children's in Seattle),
  - <u>John Murphy</u>, went to Epic after HMDS, now with Dell/Perot.

Serving Clients w/Client Server

- Updates were mailed out on floppy diskettes, and for emergencies, HMDS could dial into clients' PCs using ***blazing*** fast 9600-baud modems!

- I first ran across HMDS in a system search for <u>Central Medical Center</u> in St. Louis, a 100-bed inner-city hospital without a dime to spare…

- HMDS beat out all other HIS vendor, both in terms of price and Frank's willingness to put up with my negotiating tricks…

Denouement

- So what ever happened to this amazing microcomputer upstart? Like just so many other pioneering HIS vendors, HMDS merged with (acquired by) a larger firm, and then was eventually sunset:

  - In 1992, **HMDS** joined forces with **Citation**, a pioneering LIS that also ran on **IBM** PCs running on a Novell LAN – a match made in heaven! Citation had more than 500 users in 48 states and Canada, including hospitals ranging from 16 to 1,000 beds.

  - So what went wrong? Suffice it to say that **Citation** got bought up by **Cerner**, when **Cerner** was the leading LIS vendor (no Millennium HNA apps back then…). Frank left them in 1997.

- Ironies never cease: around 2005, I asked Frank to help me at a big IT Assessment for <u>Presbyterian Health System</u> in NM, an IDN with several satellite hospitals including <u>Espanola Hospital</u> near my home in Santa Fe, *still* running HMDS hundreds of years later! I did *not* let Frank go near the place or he would have upgraded them…

"**H.I.S.-tory**" **by**

Vince Ciotti

Episode # 41:

Jim Carter,

SMS' VP of

**Operations**

Another HIS-tory Hero

- We interrupted our series on Frank Poggio's HMDS micro-based system for the sad news of the passing of Bill Corum of McAuto.

- Bill was the VP of Data Center Operations at McAuto, easily one of the most important positions in a *shared* system vendor!

- Well, this week we're gonna interrupt the story on micros a 2nd time to tell the story of the VP of Ops at Mac's arch-enemy - SMS:

- **Jim Carter** – let me start by saying Jim is doing pretty good right now, but fighting a serious illness. I just spoke to him this weekend and it was such a rush hearing his guts & fighting spirit fighting his damn disease that I had to tell the story to all his many old friends from King of Prussia.

Bottom: *Jim Carter*, Data Processing Manager, makes an emphatic point during a question and answer session on the analysts data center tour.

A True Soul *Brother*

- I first met Jim back in 1970 when he joined **SMS** from California Blue Cross where he ran their giant **IBM** mainframe data center.

- We were struggling (to put in mildly) with running SHAS on our 360 mainframe in Bridgeport, PA (hadn't moved to K of P yet).

- Jim popped up one day and was hard to miss: one of the few African-American employees at **SMS** back in those early days.
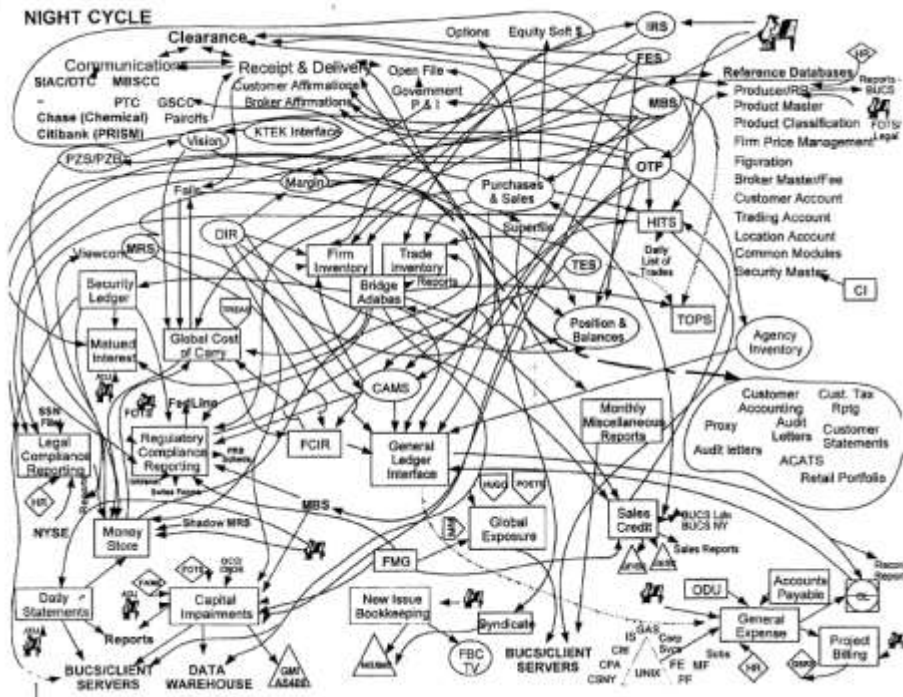
I remember sitting in his cramped office where he had pasted up all of the data flow of **IBM's** SHAS on the wall, to try to document the correct sequence of running the hundreds of programs in the JCL.

He had cut and pasted dozens of flowcharts from the SHAS OPS and PDM manuals to figure it out

Bright, Hard Working, *and Fun!*

- It was quite an intellectual feat to figure out that job flow, as SHAS would abend often, and restarting correctly saving clients from re-submitting *hundreds* of batches of 5081 keypunch cards, **or not!**

- So the guy was among the smartest stars in a company full of bright boys, yet he was also one of the most down-to-earth people in a corporate world of wing-tip shoes, white shirts & blue ties.

- Jim's afro hair style gave away his unpretentious approach to the business world: he would challenge you with some tough question or problem, debate the issue in a rapid-fire give & take, and then punch you in the arm & tell a joke when it was all resolved.

- Long hair back then was a symbol of how we younger dudes were struggling to look correct in a world where image was everything.

If you remember how SMS was full of ex-IBMers, we long-hairs definitely stood out!

An Athlete & A Gentleman

- Jim excelled in areas outside the office, as I learned to my chagrin:

  – In 1971, I decided to challenge his operations department to a basketball game against we IDs (Installation Directors).

  – IDs were decidedly older and paunchier than Jim's operators, but I was bored and single at the time, so what the heck…

  – We met at the YMCA gym in Bridgeport, and started shooting around as a warm-up – if you shoot hoops, you know the tradition of giving the ball back to whoever makes a shot, right?

- Well, Jim comes out and makes a jumper, gets the ball back and makes a hook, gets the ball and makes a long one-hander, gets the ball back and makes a turn-around jumper, gets the ball back and… you get the picture, for about 20 shots!! Needless to say, his Ops guys murdered we IDs.

Big Promotion!

- In 1982, Jim *really* made it big at SMS: he was promoted to VP of Operations by Carl Witonsky, SMS's VP for all of Systems & Ops, about the same time **Bill Corum** was promoted to VP at McAuto.

- I know it's not politically correct to even raise the issue, but for a black man to earn the honor and recognition of being promoted to VP was a very big deal, quite fitting with Jim's accomplishments.

- I doubt if anyone keeps such records, but I'll bet Jim was one of the first (and most deserving) Afro-Americans to earn such an honor in the whole US IT industry back in those halcyon days…

Carter Promoted to Vice President Of Shared Systems

On January 1, Carl Witonsky, Vice President for Systems and Operations, announced the promotion of Jim Carter to Vice President, Shared Systems, with responsibility for all host application development, delivery systems development, customer service, and operations.

Jim Carter joined SMS in 1970 and has been responsible for all aspects of our Datacenter operations, including equipment procurement, microfilm, distribution, operations and our Los Angeles print center. In 1981 he was given the additional responsibility of the Customer Service department and primary processor procurement.

"Act II" of Jim's HIS Career

- Jim eventually left SMS in the late 80s, flush with penny-a-share stock that had grown amazingly. He took it easy for a while, then was recruited by another SMS HIS-tory hero: **Harvey Wilson**.

- After a stint as SMS' CEO, Harvey too left the corporate jungle for a few years pursuing his love of boats. After a while, he yearned for another shot at the brass ring, and formed a company called "NewCo," recruiting a bunch of former SMS-ers, including Jim.

- Harvey acquired several quality HIS systems to build his new HIS:

- TDS – ex-Technicon, *the* clinical suite, and

- SDK – Sam David Kaufman's *hot* financials.

Jim set up the "remote hosting" data centers for the new firm that Harvey built up to where it *eclip*sed most leading HIS *systems*. The fitting name for such an up-start venture?

- *ECLIPSYS,* and the rest is HIS-tory…

Sad Turn of Events...

- Shortly after our 40th SMS reunion in October of 2009, Jim was diagnosed with Pancreatic cancer.

- Like Steve Jobs, he's fighting it just as hard as all the other challenges he overcame in his career.

- Here's Jim at the reunion celebrating with Tony Sammartino, Mgr of SMS' Customer Service Center, who ran SMS' data center in 1969...

- Jim seemed to have the disease beat thanks in no part to his always positive attitude, competitive spirit and amazing joie de vivre –

  - He told me last Sunday he was out *dancing* on Saturday night!!

- After countless chemo & rad therapy, he's still doing battle with it...

- So here's to Jim Carter, HIS-tory hero extraordinaire – keep fighting!

"H.I.S.-tory" by
Vince Ciotti

## Episode # 42:

Bedside Terminals

Bedside Terminal Revolution

- You may remember from an earlier HIStory episode how daring it was when Mike Mulhall (of later fame as SMS' VP of IDs) dared to place a 1052 terminal on the nurse stations at Monmouth Hospital in NJ back in 1968 as part of **IBM's** pioneering "HIS" project there.

- In the event, the "Selectric" style keyboard was so cumbersome to RNs and even Ward Clerks (no "Unit Secretaries" back then) that Mike ended up putting them in the basement where "Kelly Girls" typed in orders phoned down from the floors (earliest "scribes!").

- Well, we are now going to see how it was not about 15 years later when microprocessors of the early 80s allowed devices to penetrate that most hollowed sanctum of hospitals: patient rooms themselves, soon to be known as "Bedside Terminals."

The Bedside Pioneer

- And just *who* was the early DP vendor who pioneered this move of terminals down the hall from nurse stations to patient rooms?

- I'll give you some hints (and I'll bet many of you get it wrong!):
  - Starting in the 1880s, this firm was one of the first to establish a formal "inventions department" – in essence, the first R&D in office equipment.
  - The founder and CEO was a sales maven, who literally wrote the book in sales training, sales quotas, commission plans and marketing strategies.
  - The firm introduced classy brochures that described products in glowing terms with skillful descriptions and profusely illustrated graphics.
  - By 1928, this pioneering company posted $50M in annual revenue, making it one of the top 4 leading firms in early office machinery suppliers.
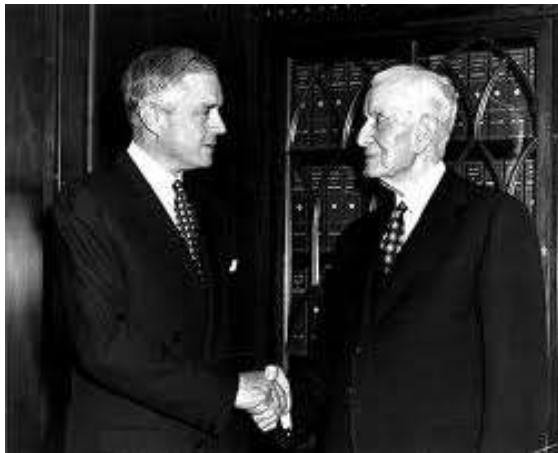
- One of its early sales superstars was **Tom Watson**, who cut his teeth selling pianos to famers in upstate NY in the late 1800s.

- Only natural this office gear pioneer would be the first to build a bedside terminal, so

  - *Who was this pioneering firm??*

NOT IBM!!!!!!!!

- *Gotcha*, huh? It was the **National Cash Register Company** – NCR!

- Tom Watson Sr. started with them as a sales rep and learned his skills from NCR's founder, John Patterson, who started NCR way back in 1884.

- By 1908, Watson was promoted to sales manager at NCR, but in 1911, Patterson fired him (sound like any arrogant vendor CEO you know?).

- Watson left and took his amazing sales skills to C-T-R, the firm who inherited the Hollerith punched card system, which later morphed into IBM. Meanwhile, back to bedside terminals, and NCR's breakthrough:

No "Peanut"!!

- Around 1982, NCR launched an amazing project to build a device that RNs could hand-carry right into a patient's room to record vital signs
  - Temperature, Pulse & Respiration (TPR)
- They called this breakthrough device the "**PNUT**" for **P**ortable **N**ursing **U**nit **T**erminal, and was it ever hot!
- Pictured on the right is a 30-year old brochure I saved from the 80s, on which I wrote the name & phone # of NCR's **PNUT** Product Manager:
  - Wayne Roach – are you out there Wayne? Gimmee a call or email!!
- An early developer of the **PNUT** was:

PNUT FEATURES

TEMPERATURE MEASUREMENT DEVICE

The built-in Temperature Measurement Device automatically captures present temperature and displays the reading. Temperature reading capability ranges from 94° to 106°F. Time required to obtain the patient's temperature reading is about 35 seconds.

Replaceable temperature probe covers permit use of the sterile probe with each patient. The probes are color-coded to differentiate between those designed for oral use (blue) and those designed for rectal use (red).

BLOOD PRESSURE MEASUREMENT DEVICE

Systolic, diastolic, and mean arterial readings are captured and displayed automatically by the Blood Pressure Measurement Device. Measurement capabilities range between 40 mm Hg and 300 mm Hg.

PULSE MEASUREMENT DEVICE

The built-in Pulse Measurement Device automatically captures and displays the patient's mean pulse rate. In addition, minimum and maximum pulse-rates detected during the measurement period are also displayed. This device is an integral part of the blood pressure cuff and records pulse-rates from 40 to 145 beats per minute. Time required to obtain the patient's blood pressure and pulse reading is about 30 seconds.

PNUT Cradle

When not in physical use, PNUT resides in a cradle similar to cradles used to charge pocket pagers. While the PNUT is in the cradle, its data is input to the host processor, updated, and downloaded to the individual PNUT as current patient data. Batteries are also automatically charged during the cradle period.
- Provides interface with host processor and an existing terminal.
- Occupies small amount of counter space.
- Interfaces to many existing hospital systems.
- Industry standard RS-232 for communications.

Wayne Roach
Product Mgr.
(607) 273-5310

NCR

PNUT Developer

- (Just amazing what you can find on the Internet these days...)
- Pictured on the left is <u>Bob Reminick</u>, Project Engineer at NCR from 1982 – 1984, responsible for the Electrical Systems and Software design and test for the **PNUT** and its "Cradle" (docking station). Are you out there, Bob?

- Like everyone else in the HIS industry back the 80s, I was *fascinated* by the ads for the PNUT that ran in Modern Healthcare, HMFA, etc.

  - What an amazing jump from desktop PCs and floppy disks!

- The device offered an enormous improvement over the then-current practice of RNs scribbling patient's vital signs on scraps of paper, their scrubs, or even the back of their hands, and then carrying the info back to the nurse station where it was copied onto TPR logs in the chart, with the inevitable transcription errors...

PNUT's Keyboard

- Pictured on the right is the **PNUT's** diminutive keyboard through which nurses keyed in the patients names, room number, etc. (no bar coding)

- *Doesn't this look like an inspiration for the Blackberry, iPhone, and scores of other modern PDAs!?*

- Sadly, the **PNUT** did not sell well, despite gazillions of leads from techno-horny "DONs" (Director of Nursing – no "CNOs" back then!).

- They had little budget to buy high-tech IT gizmos, and since it touched patients, NCR had the usual challenging time with the FDA…

Want to learn more…

- About this amazing bedside pioneer? Then chase down this FDA website and read on…

- (Makes you wonder how in the world did they ever write history books back before the age of Google, Wikipedia, Yahoo, Bing…)

FDA ~zilla Data-driven Intelligence on the FDA

| Drugs | Devices | MAUDE | 483s | FDA Employees | Store | Blog |

Devices@FDAzilla **ncr corp.** search devices

AdChoices ▷

Medical Manufacturing
ISO 13485:2003 & FDA registered Class II and III medical devices

Search Results for: ncr corp.   < prev 1 – 1 of 1 next >

Date	Device	Company	Product Code	Application Number
1984–11–08	PORTABLE NURSING UNIT TERMINAL	NCR CORP.	DXN	K841246

- In the next episode on bedside terminal systems, we'll cover one whose founder walked into Sheldon Dorenfests' office in 1985 where we helped him found a firm that lives on to this day…

"H.I.S.-tory" by
Vince Ciotti

Episode # 43:

Before HIMSS!?

What Came Before HIMSS?

- Since everyone is at HIMSS this week, it seems only fitting to interrupt our HIS-tory segment on vendors one more time...

- Just what came before HIMSS? For some of today's younger CIOs today, the question may be "Did *anything"* come before HIMSS??

- Well, hold on to your badges as we delve back into pre-HIStory to tell about what "DP Managers" went to before there were CIOs

- **American Hospital Association** (AHA) – way back in the 60s & 70s, the "place to be" for HIS vendors was the AHA's Annual Convention, where mainframe makers like **IBM** and the BUNCH group competed with the likes of Hill-Rom and Baxter for floor space. I was in installations at SMS at the time, so I never got to go – that privilege was for sales/marketing guys

Big Blue's Convention!

- But even the **AHA** Convention paled in comparison to **IBM**'s own "user group" (that name hadn't been invented yet!) known as:

  – **Electronic Computing Health Oriented**, or ECHO. I hope you appreciate the photo on slide 1, which is of an actual ECHO folder I collected at the first one I attended over 30 years ago in 1980 at the beautiful Del Coronado Hotel in San Diego.

  – I was working in marketing for McAuto by then and so earned the right to mingle with several hundred DP Directors there...

- We were trying to sell our **Tandem**-based PCS (Patient Care System), or **DEC**-based HDC mini system, but as you might imagine, they got little traction with the DP Directors back then who were eager to learn about the latest **IBM** offerings in their 43XX and 30XX mainframes...

And Don't Forget HFMA's ANI!

- Back in the 70s & 80s, another powerhouse annual meeting place was the Healthcare Financial Management Association's ANI (Annual National Institute), *the* place to meet CFOs!
  - Remember, back then, DP/MIS departments generally reported to the Controller. Just like HIMSS gave credence to the title "CIO" in the 80s & 90s, HFMA had given meaning to the title CFO in the 60s & 70s.

- When I was running marketing for HIS Inc. in Brooklyn in the early 80s, we exhibited at many *regional* conferences, long before any vendor ever heard of HIMSS, let alone sent a booth there:
  - NEHA – the New England Health Association in Boston
  - MAHC – Mid-Atlantic Health Congress in Atlantic City
  - WHA – Western Hospital Association in San Francisco
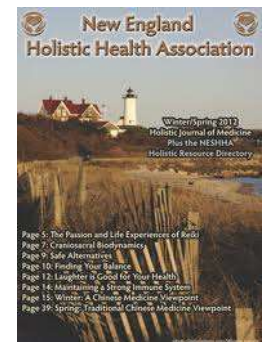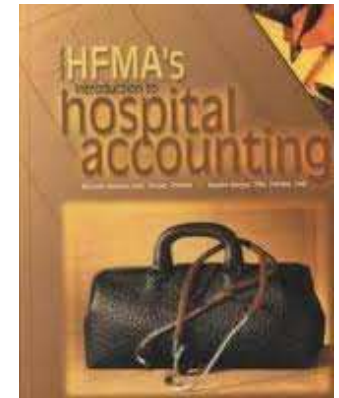
Local HFMA Chapters

- *The* place to be to meet prospect and client DP Managers and Controllers was your state's *local* HFMA chapter.
- They not only held frequent seminars that we tried to give our pitches at, but actually gave you a chance to work shoulder to shoulder with hospital professionals, like this hard-working group on the left from my days in NJ's HFMA chapter MIS committee in the late 80s
- (Don't worry Eileen, Paul & Gil, I won't give out your last names…

HIMSS HIS-tory

- There's a wonderful pdf file on HIMSS complete history at:
  - http://www.himss.org/content/files/HIMSS_HISTORY.pdf
- HIMSS started as HMSS (**Hospital Management Systems Society)**
  - Comprised primarily of **Management Engineers**, HMSS actually sprung out of a group of pioneers who met at the annual <u>Mid-Atlantic Health Congress</u>, usually held in Sin City, er, that is, Atlantic City, New Joisey.
  - The photo below shows HMSS founding management engineers in 1965:

- The first HMSS national convention was held in Baltimore in 1962, when the entire membership was 54:
  - 26 Full Members
  - 8 Associate Members
  - 14 Affiliate Members
  - 6 Commercial Members
- Some difference from last year's crowd of 20,000+!

Drs. Harold Smalley, Lillian Gilbreth, and John Freeman (Charter Member and Past President) (February 1965)

Adding an "I"!

- It was not until **1986** that HMSS renamed itself, adding the "I" to encompass both **i**nformation systems and telecommunications professionals, officially changing its name to the Healthcare Information and Management Systems Society (HIMSS).

- It was billed as "HIMSS of the AHA," headquartered in Chicago.

- Ironically, in the very next year (1987) HIMSS held its annual convention in *the* sin city, Las Vegas, scene of 2012's caper…

- Check out these facts from this first annual convention officially entitled "HIMSS" (not HMSS, which had run 14 prior annual gigs, mostly in Atlantic City and Baltimore):
  - 525 people in attendance
  - Nearly filling the Riviera Hotel
  - 36 vendors/consulting firm booths
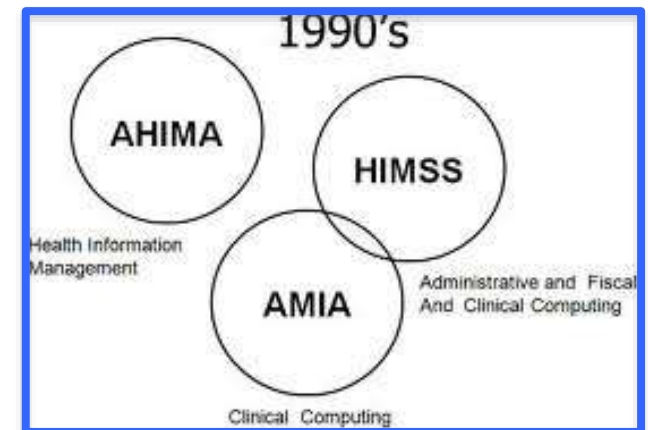
Early Testimonials

- The May 1987 issue of Bill Child's Healthcare Computing & Communications featured HIMSS as its feature story, and included these testimonials from HIS notables of the time:

  - <u>Mark Gross</u> of E&Y

  - <u>Rich Sneider</u>, consultant

  - <u>Jim Reep</u>, founder of First Consulting

  - <u>Rick Adam</u> of Baxter/Travenol

  - <u>Scot Waldrop</u>, CyCare

  - <u>Jay Toole</u> of AA

"There is no question that information systems are becoming increasingly important to the healthcare industry. We believe that HIMSS can play a significant role in supporting the information systems professionals in their efforts to fully realize the information potential in their institutions."
Mark Gross
Ernst & Whinney

"Information technology is only important to a healthcare provider when it supports strategy and leads to competitive advantage. The Chief Information Officer (CIO) must insure that technology supports strategy. As the CIO trend emerges, Travenol Healthcare Information Services and its clients will all benefit."
Rick Adam
President & CEO
Travenol Healthcare Information Services

"The need for objective, cost-effective sources of information about available products and the state-of-the-art for information systems is one of the primary issues the Center is uniquely positioned to address. After capital plant expansion, information systems represent one of the largest expenditures and impacts all departments of the hospital. To date, this area has largely been unexplored."
Richard M. Sneider, Ph.D.
President
Sneider & Associates, Ltd.

"We at CyCare feel that the Chief Information Officer (CIO) should and will become one of the key executive positions within the industry. Information, a most important resource of any organization, must be controlled and managed no less diligently than financial resources. Just as the Healthcare Financial Management Association gave bloom to the Chief Financial Officer function, we believe that the HIMSS can accomplish what is needed to develop the CIO as an important executive level profession."
Scott Waldrop
Vice President - Hospital Division
CyCare Systems, Inc.

"In our role of management and technology consultants to the healthcare industry, we believe that effective use of information and technology increasingly requires close coordination and integration of various data processing, office automation, management engineering, networking and certain clinical technologies. This coordination requires an executive capable of managing the information asset. We hope, that by sponsoring HIMSS' growth, organizational solutions (i.e., Chief Information Officer (CIO) concept) to this mandate can be furthered."
James A. Reep
Sr. Vice President
First Consulting Group

"The industry has become extremely competitive in the last several years. Healthcare executives are increasingly interested in using information systems to support the strategic direction of the business and improve the quality and timeliness of key decisions. This will place added importance to the role of the information systems manager. HIMSS should provide a needed forum for information systems professionals to address important issues such as the role of the CIO, information management and system integration."
Jay E. Toole
Partner
Arthur Anderson & Co.

Perspective

- If you're lucky enough to have conned your CFO into approving travel to for this year's HIMSS, keep this fascinating perspective in mind as you walk among the *thousands* of vendor booths:
  - That hall was *empty* a few days before and will be empty again a few days later as it sets up for the next convention.
  - Which is about as long as the sales claims & marketing hype you hear there will last, until you go back to your hospital's HIS and reality…

"H.I.S.-tory" by
Vince Ciotti

Episode # 44:

CliniCom
Part 1

It All Started with Dorenfest…

- I was working for the HIS pioneer Sheldon Dorenfest back in 1984, when he ran a well-attended annual seminar for hospitals and HIS vendors that gave a vey insightful review of the HIS industry:

  - Market size, vendor review, leading products by segment, etc.

- One of the many vendor attendees that year was a gentleman named **Peter Gombrich**, new to the HIS field, but a *very* smart engineer and eager to learn every aspect of the HIS industry.

- Peter stayed awake during *all* of our presentations, even mine (during which I sometimes dozed)

• A few days later, he showed up at our offices in Northbrook in suburban Chicago and signed a deal with Shelly for us to study the idea he had for a radically new product for the mid-80s.

"As the hospital's Healthcare Information System becomes more complex, it is essential that a central focal point be established within medical institutions to assure the Hospital Information System is able to unify and satisfy all departmental needs. It is our belief that the Chief Information Officer plays a critical role in this focus. We, as an emerging clinical information systems supplier, believe that the HIMSS can provide such focus.
**Peter P. Gombrich**
President & CEO
CliniCom, Inc.

Impressive Background…

- We were just winding down the sale of Sentry Data to CDC, so I got assigned to the project – Peter liked my SMS experience, so erroneously thought I might help him build an equal success…
- The more I learned about Peter, the more impressed I was with him; check out his background:
  - BS in Electrical engineering and MBA from University of Denver
  - Held various sales & marketing positions with **Medtronic** and **Beckman Instruments**, two supply giants in those days…
  - Co-founder of **St. Jude Medical**, one of the largest heart valve company in the world, back when valves were a daring idea…
  - Co-founder and Chairman of the Board of **Integrated Microcircuits**, an outgrowth of St. Jude from 1980 to 1984
- So even though he was turning to us for advice in penetrating the HIS market, the man knew his biz & tech stuff!

Sad Beginnings…

- The roots of Peter's idea for a breakthrough product are a sad testimonial to the all too human side of healthcare:

  - Decades before the 2000 IOM report on "To Err Is Human" and medication errors,

  - Peter had a relative who suffered from, a drug mis-administration in a hospital, and his product idea was to use the latest in technology to prevent that in the future.

- To appreciate Peter's genius, you have to go back to 1984 and remember how crude medication administration was back then:

  - The concept of a "unit dose" had only started to become popular

  - Most nurses administered drugs with none of the Med Rec, eMAR and BMV of today. Indeed, MARs were totally *paper*.
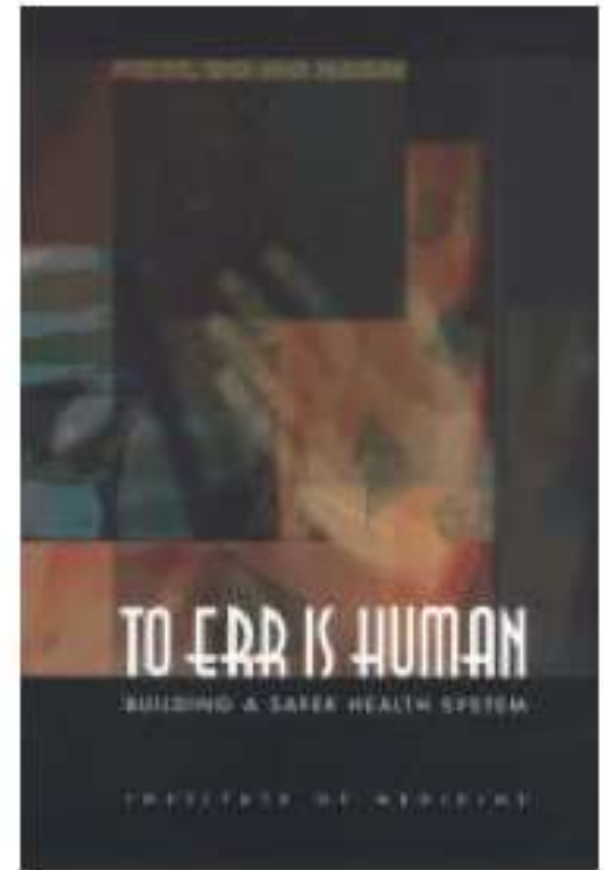
A Deceptively Simple Idea

- In today's high-tech world of ubiquitous Web access via WiFi, it's hard to remember how daring a concept like this was back in 1984:
  - A *handheld* device (decades before PDAs & i-everything...)
  - For nurses (who in 1984, had but a single CRT for Order Entry)
  - To bar code their ID badge (when UPC codes were just starting)
  - Then the patients wrist band (which were all typed by hand)
  - And the Unit Dose med being administered (w/manual labels)
- These 3 data elements were then transmitted via radio frequency to
- Plexus Microcomputer in the data center, where a program checked what the doctor had ordered,
- And sent back a red or green light to tell RNs if it met the 5 rights!!!!

Now For The Business Plan…

- Shelly and I were very impressed by the concept, and wrote a report for Peter pointing out the enormous potential (which he already knew) and a few drawbacks:
  - Bar codes were *not* placed on Meds in advance by Pharmaceutical companies back then, so printing them in the Pharmacy and affixing them on every unit dose would be an added cost to hospital buyers…
  - I had a hard time explaining to Peter that he needed to offer *installation* too: a team of pros to go out to hospitals and lead them through the whole process.
    - Obvious to me from my background as an SMS ID
  - Plus a customer service center, training department, technical writers for user documentation, etc.
    - My personal contributions to SMS' early days…

Product Launch

- Peter charged ahead, and the ad on the right shows the amazing splash ad that graced the pages of HIS magazines back then:

- Nurses were *thrilled* to finally get a product designed specifically for them, and the leads came flying in, handled by a team of sales pros like:
  - Mike Meyer & Brain Higgins
  - Both vets from McAuto

So Whatever Happened?

- So did Peter Gombrick strike it rich again?

- What ever happened to him after CliniCom?

- Did anyone buy the amazing new CliniCare?

- What became of the both company & product?

- Stay tuned for the answers next week when we'll cover the growth of this amazing breakthrough thanks to a HIS-tory Heroine:

  - **MARJORIE RODELL** - an amazing lady as smart & hard-working as she is pleasant to work with (and look at!), whose consulting firm SMG provides help to vendors, and who promises to dig through her archives from when she worked at both CliniCom and the HIS vendor that eventually bought it.

- Anyone else have any CliniCom stories to tell? Please call or write:

  - Vince Ciotti: 505/466-4958   *vciotti@hispros.com*

"H.I.S.-tory"
by Vince Ciotti

Episode # 45:

CliniCom
Part 2

An InsiderView

- As we saw last week, CliniCom was an amazingly early pioneer of BMV (Bedside Medication Verification) three *decades* ago!

- After that episode, I received a fascinating email from an early CliniCom team member who gives the following insights into what he remembers 20+ years later from the inside of such a breakthrough start-up. Here's the words from **Don Gilchrist**, VP of Engineering, himself (followed by my commentary in italics):

- *" One liners about the beginning. People and events that supported the survival of CliniCom:*

  *- **Shoes** - Marshall Miller of 'THE MINNETONKA MOCCASIN CO.' provided extensive early financing and emergency funding to meet payroll and keep the doors open. Without Marshal's support, ClinCom most likely would not have survived."*

  *- (so **that's** where Peter Gombrich got his funding!)*

Other Key Players

- **"Shirley Hughes** - from TDS, Director of Marketing 86 -89 - got marketing up and going."

  - *(TDS was "Technicon Data Systems", a successor firm to Lockheed's MIS, **the** CPOE pioneer in the 60s & 70s.)*

- **"Terry Watson** - Sales 86 - 92 - key to closing the early sales."

  - *(Reminds me of a great quote from a McAuto HIS-tory hero, Ed Hamilton, VP of Sales & Marketing in the early 80s: "Nothing really happens until someone **sells** something!")*

- **"Marjorie Rodell** - Everything you said and more. Instrumental in moving software development from start-up to commercial operation." *(Much more about and from Marjorie later)*

- **"Peter Gombrich** - the creative soul and brains who, like in many start-ups, was ousted before reaping the payoff." *(So sadly familiar in HIS-tory, the early founders rarely stay with a firm for long…)*

Other Inside TidBits from Don

- **"Bill Brehm** - Professional Manager who turned CliniCom around."
  - *(Damn, just can't shake this guy! First he pops up at **SMS**, then **McAuto**, then **HIS Inc**. in Brooklyn. Then he starred at **Gerber-Brehm** writing IFAS; now here he is at **CliniCom** too!!)*
- **"SMS** - Arrogant, not-invented-here company who blew the chance to partner with and someday purchase CliniCom."
  - *(The NIH {Not Invented Here} syndrome plagues many large HIS vendor development teams: "we can build a better one…" SMS finally started buying rather than building with Computer Synergy and MedSeries 4 – amazing they passed up CliniCom!)*
- "Emergency move of Sequent sever to St. Francis Topeka, a beta site, from Boulder in back of pickup to address performance problems and allow them to continue using the system."
  - *(It's the small start-ups who truly "Partner" with their clients!)*

And More…

- "M&M's used for testing of Unit Dose Packaging."

  – *(remember med unit doses did not come with bar-code labels back then – CliniCom printed and glued them on)*

- "Living in Hospitals and working with Nursing & Pharmacy 24X7."

  - (How many of today's mega-vendors have implementation staff who work in the trenches all 3 shifts and weekends?)

- "In house manufacturing including wave soldering of printed circuit boards.

- Getting the radios and firmware in hand-held 'Dust Busters' to work reliably."

  - (Actually, I always thought it looked more like an iron than a dust-buster)

Final Thoughts From Don

- "Addition of wall mounted touch screen in every room years before anyone else offered similar solution."
  - *(Hats off! PCs were just becoming popular {I bought my first in 1987!} and CliniCom not only invented wireless BMV, but they pioneered the wall-mounted devices so common today!)*
- "Delivery of 5 rights of drug administration before anyone else offered similar solution."
  - *(Remember, the IOM report didn't come out until 15 years later!)*
- "Capture of I&O, Vital Signs at the bedside."
  - *(To be fair, NCR's PNUT beat them to this by a few years...)*
- "Being involved in a product that really made a difference in the quality of patient care."

Wall-Mounted
CliniView®
Narrative
Charting

Admission
History
and
Assessments
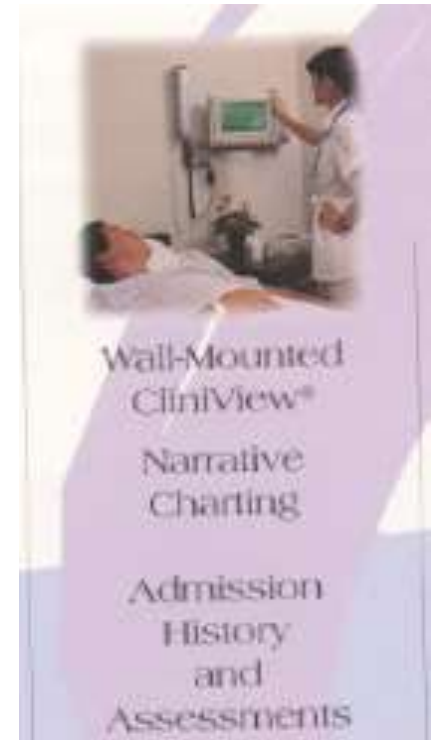
An Amazing Ride!

- We'll wrap-up the CliniCom story next week thanks to input from Marjorie Rodell, a HIS-tory heroine from their early days, like this image below from her archives that sums up their first 5 years:

| 1985-1986 | 1987 | 1988-1989 | 1990 |

"H.I.S.-tory" by
Vince Ciotti

Episode # 46:

CliniCom
Part 3

Wall-Mounted CliniView®

Narrative Charting

Admission History and Assessments
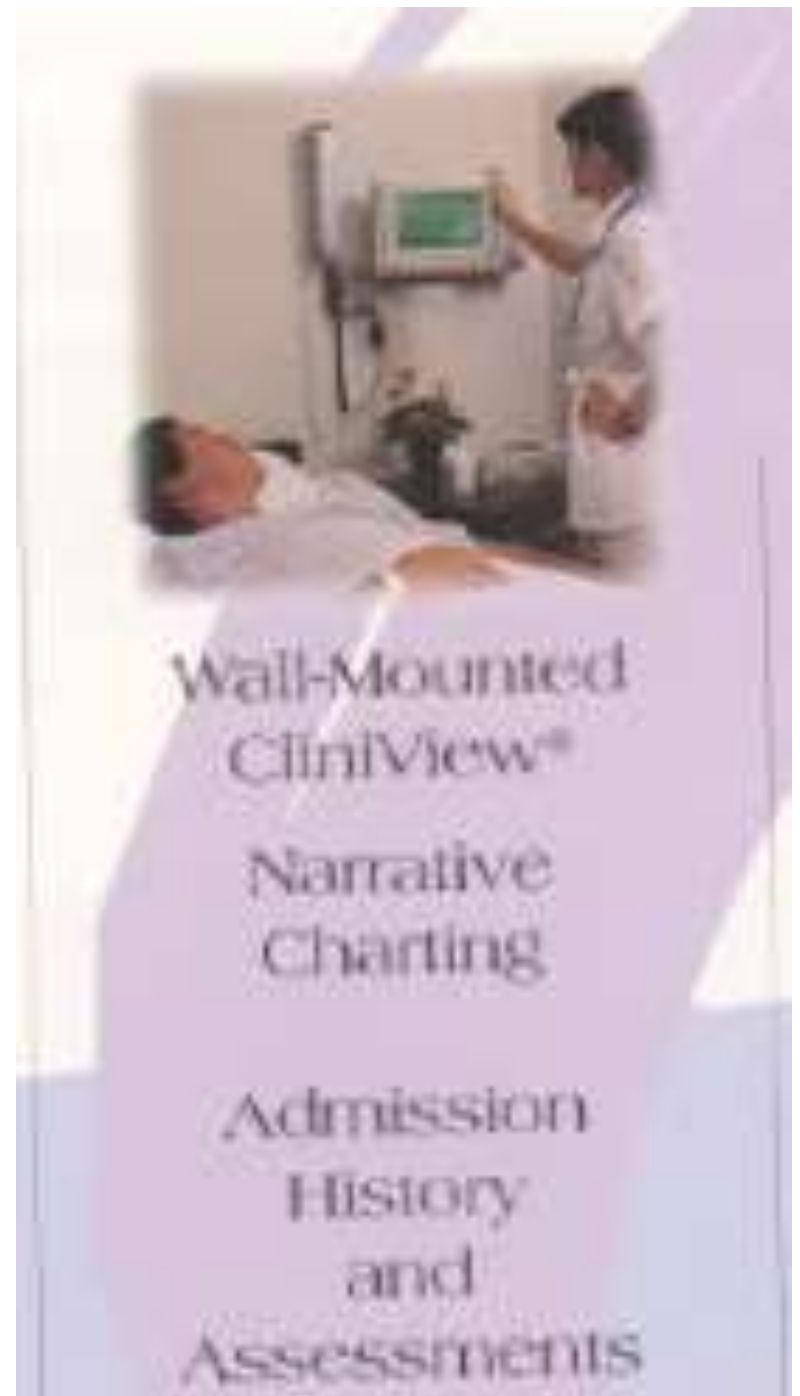
Another Insider's View

- As we saw the past 2 HIS-tory episodes, CliniCom was an amazing start-up vendor of bedside nursing systems, that pioneered RF telecom, bar-coding and handheld devices over 25 years ago.

- After **Don Gilchrist's** fascinating input last week, I received a treasure-trove of pictures and insights from another early CliniCom team member, **Marjorie Rodell**, who led software development:

- *"If you look at the CliniCare terminal (on right) you'll see a precursor to iPad 20 years earlier."*
- (granted Apple's software is much more user-friendly, but the basic device pictured on the right was amazingly prescient. The stylus is even reminiscent of Apple's first breakthrough PDA – the Newton, killed by Jobs after Doonesbury mocked it's character non-recognition)

Marjorie sum up the 3 main breakthroughs of CliniCom:

– *"It is interesting to think back on this time when we had to provide the terminal device, the RF network and the bar-coding methodology, because none of it existed then. We were the first to recognized that nurses were mobile.*

- *There just weren't open mobile solutions then and we believed that you had to provide the whole solution. CliniCom had a patent on a frequency-hopping RF protocol, but getting it to work in hospitals without lots of interference was a real challenge – both to install and for ongoing support."*

U.S. Patent Number D297,939

Combined portable handheld terminal and optical bar code reader
October 4, 1988

Inventors

William H. Bradbury, Boulder, CO

Inventors

Peter P. Gombrich, Boulder, CO

Assignee

CliniCom Incorporated, Boulder, CO

Application Number: 06/862,571
Application Date: May 12, 1986
Primary Examiner: Susan J. Lucas
Attorney or Agent: Merchant, Gould, Smith, Edell, Welter & Schmidt

Other CliniCom Insights

- *"CliniCom had courageous, creative and loyal customers who were the visionaries and risk takers of that time. They stuck with us through the challenges with RF, barcode glue and early stage software glitches that would not be tolerated today and pushed us in directions that Peter Gombrich probably never dreamed of.*

- *Medication administration, as we found out, forced nursing and pharmacists in hospitals to cooperate in ways they were not accustomed to. For example, the specific times associated with QID had to be specified per nursing station. We also had a great sales team* (see next page) *and a great services team who made sure that those of us in development paid attention to our customer needs."*

CliniCom's Sales Team

The one guy I recognize below is Brian Higgins, in the middle of the bottom row – he went through my PEP class at McAuto in 1981!

A Corporate Commitment to Management of the Patient Care Process

CliniCom believes that in order to develop a clinical information infrastructure, a fundamentally different approach to information systems is required. Since the company's inception, CliniCom has focused on the challenges clinicians face in providing care and has worked with progressive client partners to develop and implement solutions that effectively address a full range of patient care management requirements. As shown in the time line below, the company has steadily delivered much of the infrastructure necessary to effectively support a comprehensive and cost-effective approach to the management of a community's health status and requirements.

1985-1986	1987	1988-1989	1990	1991	1992	1993	1994
UNIX/ Relational Database	Wireless Handheld Unit	Wall-Mounted CliniView®	HBOC Integration	Housewide Strategy	Electronic Flowsheet	Respiratory	CliniView® PC
Initial Product Development	Medication Administration	Narrative Charting	Laboratory and Radiology Ancillary Results	Multi-Disciplinary Orders	Data Acquisition System	Flowboard	CareLink7
	Fluid Balances	Admission History and Assessments	I V Administration	Automated Shift Reporting	Flowsheet Charting	PC Compatibility	HL7 Compatibility
	Vital Signs	SEQUENT	I V Site Management	ORACLE	Wireless Interactive Network (WIN)		Coordinated Care (includes Guidelines Manager and Clinical Communications)
			Care Planning				Clinical Query

CliniView RP®
Critical Care
Obstetrics
Pediatrics
CHARISMA
Hewlett Packard Channel Partner
IBM Business Partner
Data General Value-Added Reseller

10 Years of Product Growth

Bill Brehm's Contribution

- As Don Glichrist mentioned last week, Peter Gombrich left CliniCom early, and Bill Brehm of Gerber-Brehm (IFAS) fame then led the way.

- Bill led ClinCom through an amazing growth spurt, resulting in its first profitable year in 1992.

- By 1994, CliniCom had grown in 10 years to over 100 clients with an annual revenue of $35M, which caught the eye of...

CliniCom grows as hospitals work to cut

From Page 1

The company has installed CliniCom information systems in 30 hospitals nationwide. It recently signed a cooperative marketing agreement with HBO & Co. Inc. of Atlanta, an industry leader in hospital information systems.

A stock offering in April 1991 raised $6.1 million at $7.28 a share. It was followed by a secondary offering in June 1991 of 475,000 new shares at $26.50, raising $11.8 million for the company. Another 270,500 shares were sold by the original investors for $0 million.

CliniCom stock soared from an initial $7.28 in 1991 to as high as $30.75 before a two-for-one stock split Sept. 3. Since then, the stock has ranged in price from $14 to $21. It closed Monday at $20.50, down 75 cents.

Bill Brehm, the ebullient chief executive who has a penchant for sales projections like hockey sticks, knew this the recovery would happen all of a sudden.

"And we have only scratched the surface," Brehm said.

Prominently displayed on Brehm's office wall is a real hockey stick inscribed with key dates in the company's history.

Brehm, 56, joined CliniCom in 1988, when it employed 30. Today the company has 105 employees at headquarters at 4720 Walnut St.

"It took us awhile to get it right," Brehm said. "Understanding the problem cost us a lot of money. But we are pretty high on the experience curve, right now," he said.

It helped that CliniCom had the backing of patient investors: West Point Partners of Chicago, a venture capital firm, and Marshall Miller, a successor company tycoon from Minneapolis.

The turning point, Brehm said, was persuading two hospitals to take a chance on CliniCom — St. Francis in Topeka, Kan., and St.

GOAL ORIENTED: Bill Brehm, chairman and president of CliniCom Inc. of Boulder with a hockey stick inscribed with key dates in the company's history. CliniCom's sales soared to $14 million in 1992, up from $7 million in 1991. Founded in 1985, the company didn't make a profit until 1992.

Another Acquisition!

- …**Charlie McCall** of HBOC in Atlanta, who were riding incredibly high on their stock in the 90s buying up HIS vendors, and CliniCom became the basis of their "Pathways" line of clinical systems.

- The "Pathways Care Manager" suite expanded on CliniCom's emphasis on nursing functionality, which grew over time to encompass almost every aspect of nursing, from TPR, I&O, Assessments to Care Plans.

- Eventually renamed "Horizon," the pioneering nursing systems of CliniCom still run today in hundreds of hospitals who are reading the latest press releases on HERM, and wondering what's on the horizon for this paragon of clinical systems.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

OCTOBER 4, 1995
(OCTOBER 2, 1995)

Date of Report
(Date of earliest event reported)

HBO & COMPANY
(Exact name of registrant as specified in its charter)

DELAWARE
(State or other jurisdiction of incorporation)

Registrant's telephone number, including area code

Exhibit Index is on page 3

Thanks Marjorie!

- So what's Marjorie doing these days? I first met her when she was running the consulting division of the Sisters of St. Francis Health System in Indiana for CIO Bill Laker back in the late 90s. SSFHS was a heavy user of HBOC's Pathways, and pushed it to its limits, just as Marjorie pushes her Kawasaki Ninja 250 (pictured below) to its!

- Through her consulting firm, SMG Inc, she helps vendors learn from her many years at both CliniCom and HBOC/McKesson, where she led clinical software development, and can be reached at:

  970.948.5837

"H.I.S.-tory" by
Vince Ciotti

Episode # 47:

MedTake
Part 1

Bedside Matters

- The past two series of HIS-tory episodes covered two of the earliest micro systems that first placed HIS devices at the patient's bedside:

  – NCR's "PNUT" (Portable Nursing Unit Terminal), circa 1982

  – CliniCom's "CliniCare," launched by Peter Gombrich in 1984

- Although a little out of sequence, this week we are covering the granddaddy of all bedside micro devices, that debuted in the ***70s!***

  - This product is so old, even *I* (whose wife is forever moaning about the boxes in our garage!) don't have any pictures of it!

  - The story begins with a start-up from Hauppauge, Long Island, named **Patient Technology, Inc**, who developed & patented a portable, electronic thermometer called per their patent application:

Survālent *

Goods and/or Services:	Electronic Thermometers For Use In Medicine, Veterinary Medicine and Industry
Serial Number:	73087589
Registration Number:	1071344
Filing Date:	May 18, 1976
Last Applicant(s)/ Owner(s) of Record	Patient Technology, Inc. 400 Rabro Drive East Hauppauge, Ny 11788 US Johnson & Johnson 501 George St. New Brunswick, Nj 08903 US
Related Products:	Electrical and Scientific Apparatus

According to the later prospectus from PTI's 1983 Public Offering:

- "The SURVALENT thermometry system was originally developed by PTI prior to 1974. In June 1974, PTI sold its rights… to a subsidiary of J&J.

- "The thermometer weighs 10 ounces and is hand carried by the nurse or technician taking the patient's temperature."

- I remember seeing a picture of the SURVALENT, which was carried in a small crate (like a 6-pack) that included a battery and about 20 disposable, sanitary probe covers.

- Again from the the prospectus: "Interchangeable color-coded probes (rectal and oral) are provided" (yuk!)

PROSPECTUS

Patient Technology, Inc.

400,000 Units
800,000 Shares of Common Stock
and
400,000 Common Stock Purchase Warrants

The units offered hereby are being sold by the Company. Each unit ("Unit") consists of two shares of common stock, $.025 par value per share (the "Common Stock") and one Common Stock Purchase Warrant (the "Warrant"). The Company's Common Stock is traded in the over-the-counter market under the symbol "PTIX." On June 28, 1983 the closing bid price for the Common Stock, as reported by NASDAQ, was $17.00 per share. The initial public offering price of the Units has been determined by agreement between the Company and D.H. Blair & Co., Inc. (the "Underwriter").

Each Warrant entitles the holder to purchase one share of Common Stock at any time during the twelve month period ending June 28, 1984 at a price of $16.50 and at any time during the six month period ending December 28, 1984 at a price of $19.00. The Warrants and Common Stock will be immediately separately transferable. If the closing bid price of the Common Stock as reported by NASDAQ on any day is $24 per share or higher, the Company will be able to call the Warrants for redemption at a price of $.10 per Warrant upon 30 days prior written notice. See "Description of Units".

AN INVESTMENT IN THE SECURITIES OFFERED HEREBY INVOLVES A HIGH DEGREE OF RISK. SEE "RISK FACTORS" AND "DILUTION".

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION NOR HAS THE COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	Price to Public	Underwriting Discounts and Commissions(1)	Proceeds to Company(2)
Per Unit	$31.00	$2.48	$28.52
Total(3)	$12,400,000	$992,000	$11,408,000

(1) Does not reflect additional compensation to be received by the Underwriter in the form of: (i) a non-accountable expense allowance of $248,000 ($.62 per Unit); and (ii) an option to purchase up to 28,000 Units (the "Unit Purchase Option") exercisable over a period of four years commencing one year after the date of this Prospectus at $38.75 per Unit. In addition, the Company and the Underwriter have agreed to indemnify each other against certain civil liabilities, including liabilities under the Securities Act of 1933. See "Underwriting".

(2) Before deducting expenses of the offering payable by the Company, estimated at $443,000 (approximately $1.11 per Unit), including the Underwriter's non-accountable expense allowance.

(3) The Company has granted an option to the Underwriter exercisable within 30 days hereof, to purchase up to 40,000 additional Units to cover over-allotments, if any, on the same terms and conditions as the shares offered hereby. If such option is exercised in full, the total Price to Public, Underwriting Discounts and Commissions and Proceeds to Company would be $13,640,000, $1,091,200 and $12,548,800, respectively. See "Underwriting".

D.H. BLAIR & CO., INC.

The Date of this Prospectus is June 29, 1983.

Bedside Product Evolution

- Like many Blood Bank vendors can attest, PTI was challenged by the FDA regulations that governed any device that contacted a patient, so it started development of a radically different bedside device with a far greater resemblance to PNUT and CliniCare:

- This time, instead of "probing" a patient's body directly for TPR, PTI developed a microcomputer terminal through which RNs would enter data on a keyboard.

- Their real genius was in the keyboard itself – few RNs touch-typed back then (the reason why most MDs shun CPOE today!), so they got a big barrel and threw away all of the "QWERTY" keys!

Introducing new MedTake™, the affordable bedside recording system that saves you time and money.

With nursing amounting to some 40% of your operational costs, it doesn't make sense for each nurse to spend hours transcribing patient data by hand. Computerized one-time entry of patient data at the bedside is the answer. That's why Patient Technology developed MedTake, a bedside recording system virtually any hospital can afford. A fraction of the cost of other systems, it can also be installed far more quickly.

With MedTake, a nurse records pertinent patient data in the bedside terminal. The data is stored at bedside for reference by nurses and attending physicians. It is also automatically transferred to an IBM PC/XT at the central nurses' station where printed records are available.

MedTake has an extremely fast payback.

By reducing paperwork, the system saves up to 1-1/2 hours per nurse per shift. And with an installed cost of under $1,500 per bed, payback can be achieved by the average hospital in less than a year.

Also, MedTake is as simple to use as an automated bank teller. Combined with its easy affordability, this means MedTake's benefits go into effect immediately. Patient records are produced faster and more accurately. Documentation is improved for legal verification and for meeting DRGs. And, most importantly, nurses have more time for patient care.

Bedside recording is a revolutionary idea. With MedTake, it's reality. Find out how easily you can make this affordable time- and money-saver a part of your hospital. Contact Patient Technology, Inc., 400 Rabro Drive, Hauppauge, NY 11788.

So Simple, Even *I* Could Use It!

- In place of the usual single-letter keys, PTI had replacements manufactured with the simple terms that even patient care imbeciles like me could recognize, as can be seen in the enlargement below.

- This simple, almost child-like trick transformed the keys from intimidating, clerical devices to ones that "spoke" words nurses understood!

- (I can still picture that big barrel full of QWERTY keys)

- I remember giving demos of MedTake to DONs (no CNOs back then) at an AONE con-ference, and letting them just peck away to enter TPRs!
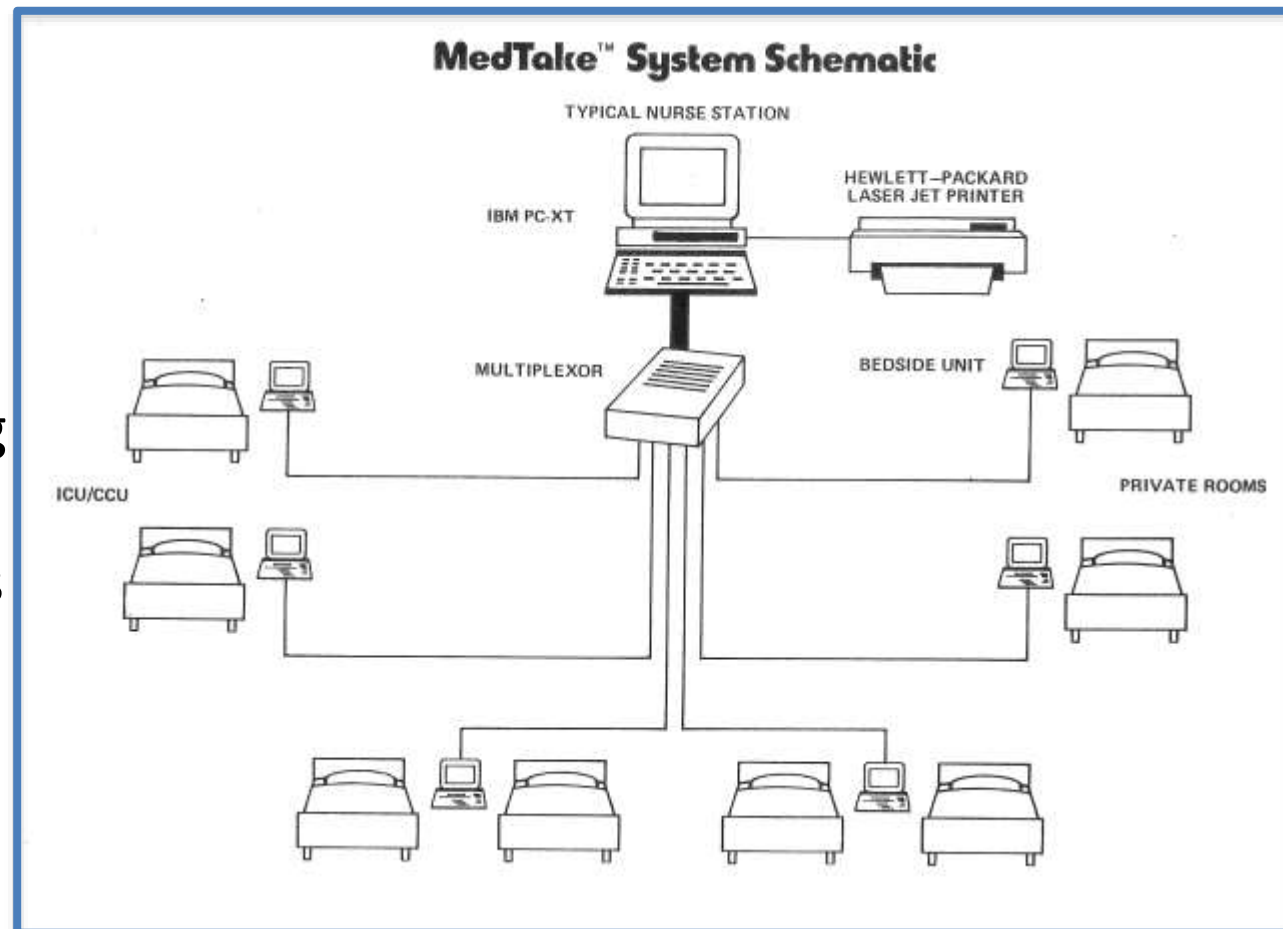
And So, **MedTake** Was Born!

- What else to call a device that let's nurses enter medical data taken from a patient than **MedTake**, which PTI began to sell aggressively.

- The small bedside units were connected to an IBM PC-XT ("server" in 2012 parlance), and paper printouts provided by an HP Laser-Jet:

- So why would a hospital spend over $2K per bed for the MedTake system?

- Same reason as the IOM started pushing CPOE back in their (in)famous "To Err is Human" report:

  Legibility!

- Check out the next page for an e.g.:

MedTake™ System Schematic

TYPICAL NURSE STATION

IBM PC-XT

HEWLETT–PACKARD LASER JET PRINTER

MULTIPLEXOR

BEDSIDE UNIT

ICU/CCU

PRIVATE ROOMS

Which Would Want In *Your* Chart?

SAMPLE

AN UNRETOUCHED EXAMPLE OF A MANUALLY PREPARED VITAL SIGNS SHEET.

SAMPLE

AN UNRETOUCHED EXAMPLE OF THE SAME DATA ON A MEDTAKE VITAL SIGNS SHEET.

So Whatever Happened to PTI?

- You may remember my oft-quoted maxim from Ed Hamilton, VP of Sales & Marketing at McAuto in 1980-1982:

  - **"Nothing ever happens until somebody *sells* something!"**

- Well, PTI learned the hard way that hospitals are a tough sell thanks to the ever-challenging financial miasma CFOs must wade through…

- So despite coming up with one of the greatest ideas since sliced bread, PTI struggled to get DONs and CFOs willing to cough up the dough…

- Eventually giving up and selling MedTake to another start-up from across the Hudson…

"H.I.S.-tory" by
Vince Ciotti

Episode # 48:

MedTake
Part 2

So Why *Bedside* Terminals?

- This series of HIS-tory episodes covers 3 of the earliest PC/micro systems that first placed HIS devices at the patient's bedside:
  - **NCR's** "PNUT" (Portable Nursing Unit Terminal), circa 1982
  - **CliniCom's** "CliniCare," launched by Peter Gombrich in 1984
  - **Patient Technology Inc's** 1970's Survalent and 1980's "MedTake"
- So why such interest to put devices right at the patient's bedside?

  - Well, check out this actual collection of how nurses captured data back then:
  - Scribbles on med wrappers, paper towels, anything they could stuff in the pockets of their scrubs, to remind them of what to chart when they got back to the nurse station.

Meanwhile, Back at the Nurse Station…

- Those scraps of paper were pulled pulled out and used to inspire these un-retouched handwritten scribbles that comprised Nurses Notes.

- Pretty similar to the problem the IOM saw when they reviewed the paper nightmare physicians go through to order meds in a paper system: illegible scribbles on source documents (med orders) transcribed onto equally illegible MARs.

- Imagine being a doctor and looking at these nurse notes the next morning to see how your patient fared over night? These graphics may help remind your MDs when they complain about your CPOE system!?

MedTake's New Owner

- So who was the NJ firm who bought MedTake from PTI?

- Per their 1986 Prospectus:

  - Formed in 1971 as "**Claims Processing Co.**" for OP billing

  - Grew their products to a full suite of financial systems

  - Running on DEC VAXes, *the* hot box in the mid-80s mini mania.

  - Later re-Named **"Micro Healthsystems Inc."** in 1982

  - With 50 employees serving 50 client throughout NY/NJ.

  - Added additional software such as a Home health Care system.

Preliminary Prospectus Dated June 20, 1986

PROSPECTUS

865,000 Units

MICRO HEALTHSYSTEMS, INC.

Each Unit Consisting of One Share of Common Stock and One Common Stock Purchase Warrant

Each Unit consists of one share of Common Stock, par value $.01 per share ("Common Stock") and one Common Stock Purchase Warrant (the "Warrant") of Micro Healthsystems, Inc. (the "Company"). Each Warrant entitles the registered holder to purchase one-half share of Common Stock at a price of $2.50 subject to adjustment in certain circumstances during a period from   , 1986, to   , 1989. The Warrants are redeemable by the Company at a price of $.10 per Warrant at any time after the expiration of six months from the date of this Prospectus provided (i) not less than 30 days' notice is given to the Warrant holders and (ii) the closing bid quotation of the Common Stock has been at least 150% of the then exercise price of the Warrants on all 20 of the trading days ending on the third day prior to the day on which the Company gives notice of redemption. The securities comprising the Units will not be separately transferable or detachable until 30 days from the date of this Prospectus or such earlier date as the Representative may determine. See "Description of Securities".

Prior to this offering there has been no public market for the Units, the Common Stock or the Warrants and there can be no assurance that a trading market will develop after the offering. The public offering price of the Units and the exercise price of the Warrants have been arbitrarily determined by negotiation between the Company and Shoenberg, Hieber Inc., the Representative of the Underwriters (the "Representative"). See "Underwriting".

THIS OFFERING INVOLVES A HIGH DEGREE OF RISK, IMMEDIATE SUBSTANTIAL DILUTION AND COMPETITIVE FACTORS RELATING TO THE BUSINESS OF THE COMPANY, AND, ACCORDINGLY THE UNITS OFFERED HEREBY SHOULD NOT BE PURCHASED BY ANYONE WHO CANNOT AFFORD THE LOSS OF HIS ENTIRE INVESTMENT. SEE "RISK FACTORS", "DILUTION" AND "BUSINESS".

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION NOR HAS THE COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	Price to Public	Underwriting Discounts and Commissions (1)	Proceeds to Company (2)
Per Unit	$5.00	$.50	$4.50
Total(3)	$4,325,000	$432,500	$3,892,500

(1) In addition to paying underwriting discounts and commissions, the Company has agreed to pay the Representative a non-accountable expense allowance in an amount equal to 4% of the gross proceeds of the offering ($.20 per Unit) and to sell to it five-year warrants to purchase up to 86,500 Units (the "Underwriter's Warrants"). The Company has agreed to indemnify the Underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended. See "Underwriting".

(2) After deducting filing, printing, legal, accounting and miscellaneous expenses payable by the Company, including the non-accountable expense allowance payable to the Representative, estimated at $326,000, the net proceeds to the Company are estimated to be $3,566,500. See "Use of Proceeds".

(3) The Company has granted the Representative an option, exercisable within 30 business days from the date of this Prospectus, to purchase up to 129,750 additional Units on the same terms and conditions as set forth above, solely for the purpose of covering over-allotments. If such option is exercised in full, the total price to public, underwriting discounts and commissions and proceeds to Company will be increased to $4,973,750, $497,375 and $4,476,375, respectively, and the estimated net proceeds to the Company will be $4,124,425. See "Underwriting".

The Units are being offered, subject to prior sale, when, as and if delivered to and accepted by the Underwriters and subject to the approval of certain legal matters by counsel and to certain other conditions. The Underwriters reserve the right to withdraw, cancel or modify the offering and to reject any order in whole or in part. It is expected that delivery of the certificates comprising the Units will be made against payment therefor at the office of Shoenberg, Hieber Inc., 66 Reade Street, New York, New York 10007 on or about   , 1986.

Shoenberg, Hieber Inc.

The date of this Prospectus is   , 1986.

The Men Behind the Name

- As usual in HIS, there were a number of little-known HIS-tory heroes behind the scenes who did the heavy lifting and deserve the credit:

Some bum we'll talk more about later…

Ron Gliates
VP Product Manager, Ron was another McAuto alumnus, and one of the best CSR reps in HIS-tory: clients *loved* him, and he worked long, hard hours to keep them happy.

Doug Haas
Sr. VP of Delopment, Doug led the hardware team that pulled the QWERTY keys off the keyboards, and software team that wrote the code to automate nursing.

Jim Pesce
Who we first met many episodes ago when he worked for GE's "MediNet," then as the Northeast Regional CSR manager at McAuto. Jim was Health Micro's CEO – running the financial system division that met the payroll.
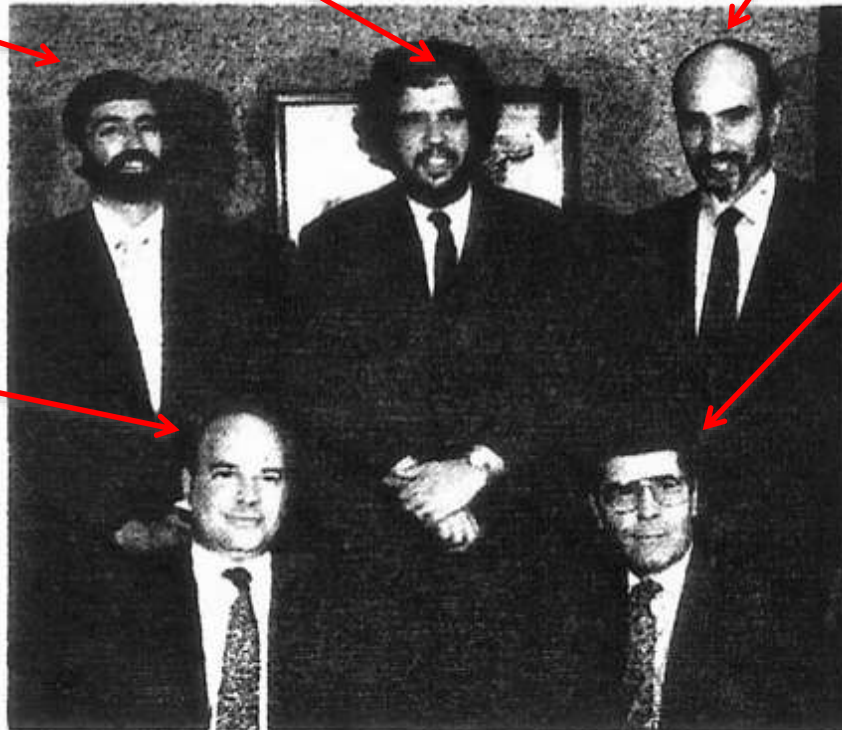
Sal Caravetta
Founder and Chairman of the Board – one of the classiest guys in HIS: smart & well-spoken, sadly passed away all too soon.

Daring MedTake Pilot Sites

- Two daring hospitals served as pilot sites who nursing staff as "early adopters" deserve credit for many improvements to the system:

Palisades General Hospital – right on the NJ banks of the Hudson, 202 beds, managed by HCA at the time, 108 devices on all their floors, 1985 pilot.

Northwestern Medical Center – in frozen St. Albans, VT, where the warm summer season lasts almost the entire month of June! 98 beds, also HCA-managed, 33 units on their 3 nurse stations. Their hard drives were prepared with a special coating of anti-freeze... live in 1986
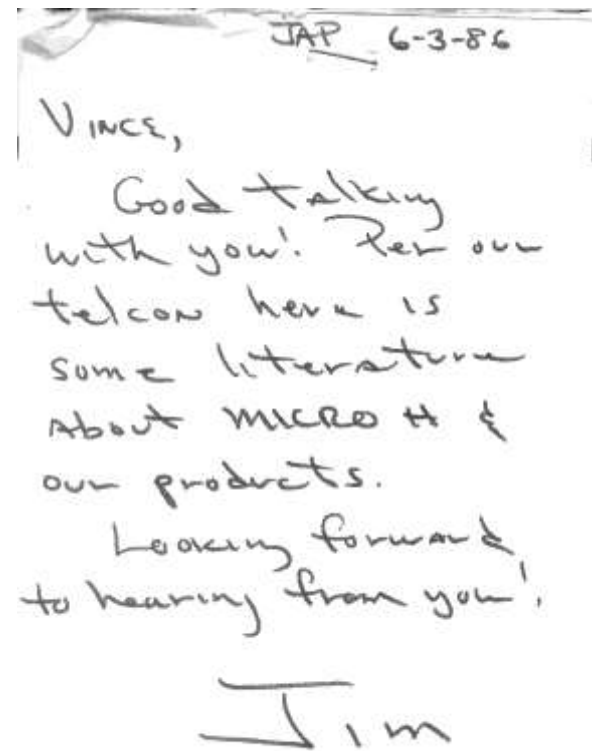
Typical Sales Challenge

- It was actually PTI who found and sold Northwestern in Vermont. Here's the great story from **JoAnn Karl**, RN, one of PTI's veterans:
  - Back in those pre-HIMSS days, *the* annual IT conference was AHA's annual national convention, where PTI bought a booth.
  - JoAnn and her team (wo)manned the booth for days, with not a single decent demo or lead among the hundreds of booths.

- By the end of the week, thoroughly depressed at the lack of prospects, they shared a cab to the airport with a nice gentleman, who turned out to be the CEO of Northwest!

- With a ½ hour captive audience, they hooked him on the concept of bedside terminals, scheduled a demo, and the rest is HIS-tory…

So How Did *I* Get Involved?

- I was working for Sheldon Dorenfest in the mid-80s, and Shelly's wealth of market analyses (his "3000" data base was the precursor to HIMSS' "Analytics") made me acutely aware of the hot market opportunity for a PC-based product, and working with Shelly on Peter Gombrich on his CliniCom bedside idea had me primed!

- I knew Jim Pesce from our McAuto days, and Jim had watched how we penetrated the mainframe market at HIS Inc. in nearby Brooklyn in the early 80s.

- Jim was looking for someone to head up MedTake sales and called me asking if I was interested. Does a bear do-do in the woods? *Sold!* Here's the note that changed my HIS-tory:

JAP 6-3-86

Vince,

Good talking with you! Per our telcon here is some literature about MICRO H & our products. Looking forward to hearing from you!

Jim

"H.I.S.-tory" by Vince Ciotti

Episode # 49:

Sad Obit of a "Micro" Hero:

Jack Tramiel

We Interrupt this Story…

- This week was to be Part 3 of the story of **MedTake**, a pioneering micro system that introduced bedside computing for nurses…

- But in the news this morning (April 12th, 2012) was the sad obituary of a microcomputer pioneer, **Jack Tramiel**, famous CEO of two early microcomputer giants that rivaled Apple back then:

  - Jack founded Commodore, that sold 20**M** model "64"s,

  - And saved Atari after it was losing out to Nintendo…

- Although little or nothing to do with healthcare, since we're on the subject of microcomputers and with the recent passing of Steve Jobs, I thought it worthwhile to recount Jack's amazing success story, both his incredibly inspiring personal life, as well as his ruthless management style that sheds light on vendor CEOs.

Another Silicon Valley Kid?

- So did Jack Tramiel start out as another Silicon Valley kid like Microsoft's:
  - **Bill Gates** &
  - **Paul Allen**

- Or their early & dominant competitors at Apple:
  - **Steve Jobs** &
  - **Steve Wozniak**?

Brutal Youthful Experience

- Hardly! Jack was born in 1929 in Lodz Poland, and at the age of 10 he watched the Nazi's invasion.

- As an impressionable youth, he was fascinated by the Wehrmacht Panzers rolling through town:
  - "It was a fantastic thing" he later recalled.

- But the fantasy soon turned to terror as he and his parents were later interred in Auschwitz.

- The young Jack was personally examined by Joseph Mengele, the "angel of death," and his father perished within a few months from Nazi "experiments" involving injection of lethal substances.

- However, Jack did survive, and after the war he took a series of odd jobs, learning English from watching American movies:

  "I figured I could handle just about anything" given the camp experiences. "60 individuals (lived) from 10-thousand people. I was one of those 60. So from there on nothing was difficult to me."

International *Business* Machines

- He learned his mother also had not perished in the camps and he met her again in Lodz. In 1947, he married another camp survivor, Helen Goldgrub, and they soon emigrated to the US.

- He joined the US Army in 1948 and repaired mechanical (no electronical then…) office equipment in the New York City area.

- *"At the same time I attended an IBM School for Office Technology. It was also there where I learnt to repair electric typewriters."*

- After 4 years in the Army, he took a job for just $50 a week in a downtrodden typewriter repair shop. He worked Army connections to secure a service contract but didn't get a raise or a bonus in return.

- *"I have no intention of working for people who had no brains" he told his boss on his way out the door!*

- He and an army buddy started their own typewriter company in the Bronx with a $25,000 bank loan.

Commodore's Canadian Roots

- With his international roots, it was no surprise that Jack left the fiercely competitive NYC/US market for a smaller neighbor:

  – *"It was no large step to move to Toronto (in 1954) with my activities later on. I thought that in a country smaller than the US my chances would be bigger...*

- What's in a name? Fascinating how he came up with **Commodore**:

  – *"We bought the (typewriter) parts in Czech and assembled them in Canada... But we still had no name for our company. One day while... in Berlin driving in a taxi, we discussed some probable names – and suddenly I saw a car with **Commodore** on it, and because our favourite names General and Admiral were already in use, we named our typewriters **Commodore**."*

- (I promise a future HIS-tory episode on neat HIS product names!)

• He next expanded into the manufacture of adding machines, which were then going electronic (e.g.; TI)

• To get his own chip, he contracted with a firm in Norristown, PA, *right next door to SMS' home town of Bridgeport (1969 –71, just before King of Prussia)!*

MOS Technologies, Inc.

- In August of 1974, eight Motorola employees including Bill Mensch and Chuck Peddle started **MOS Technologies Inc.**

  – Motorola was Apple's chip of choice for its early years…

- In June of 1975 MOS announced the MC6501 microcomputer chip for $20 and soon after the MC6502 for $25. This was truly breakthrough pricing; the Intel 8080 costs about$150, which was the chip of choice for the **IBM** PC & its world of clones. In 1976,

- MOS announced the KIM-1 with 1-MHz 6502 CPU and 1 KB of RAM for $245. – MOS tried to sell the 6502 chip to **Apple**, but Jobs did not offer enough.

- Later that year, Tramiel buys **MOS** Technologies for $60 Million so that it can be a completely self-contained company, making its own chips

MOS Technology MCS650X microprocessor designers gather around a 200X print of the CPU Rubylith, color-coded for debugging into metallization, polysilicon and diffusion layers. In the background is a 1000X expansion of the internal 21X143 decode-ROM, which manager Chuck Peddle claims is a key factor in obtaining small chip size. From left to right are layout designers Sydney-Anne Holt, Michael Jaynes, Harry Bawcom, design engineers Chuck Peddle, Ray Hirt, Rodney Orgill, William Mensch and Wilbur Mathys. Seated is product manager Terry Holdt. See page 24.

"PET" Peeve

- Announced at the 1977 Consumer Electronics Show, Commodore's **PET** (Personal Electronic Transactor) was a breakthrough home/personal computer designed as an all-in-one assembly, with a combined CRT, floppy drive and keyboard, much like the original Apple Lisa & Macintosh. It marked Commodore's abandonment of calculators for PCs, and offered then-impressive capabilities:

  - Commodore's (ex- MOS) 6502 processor with either 4 or 8 kilobytes of 8-bit RAM.

  - A built-in monochrome monitor (no color in PC monitors until IBM's 1982 PC), with 40 by 25 character graphics (less than most cell phone screens have today!)

  - A built-in cassette recorder for storage (no floppy disks in those early PC days)

Other Commodore Stars

- The PET sold so well that Commodore soon followed up with 2 equal hits:

  - The Commodore 64, pictured at right, which sold a staggering 20 *million* units, roughly 40% of the US market at the time. It introduce (hooked?) millions of teenagers to computer games, including me and my son whose gaming addiction runs well into 2012…

- Like the early Osborne portable (Phil Kline had one at McAuto!), Commodore also took a stab at a portable 64 with device on the left, which didn't sell nearly as well, just as Apple's early portable blunderbuss.

Commodore's Loss, Atari's Gain!

- However, Jack Tramiel fell out with his Canadian chairman and major shareholder Irving Gould, who had finance the MOS Technology takeover. There was quite a stink at the time about shady financial dealings (unlike our HIS vendor CEOs today, none of whom would ever be guilty of such shenanigans, right?)

- Tramiel left Commodore, and bought Atari's loss-making consumer business from Warner Bros, and started competing against his old company. The first result was a cheap line of Atari 8-bit machines, including the 520ST, known as the "Jackintosh," pictured below. It was faster & cheaper than the early Mac...

- However, all these non-Intel machines died a series of slow deaths by the 90s when the IBM PC and its myriad of clones running DOS had totally dominated the market. Even Apple tanked so badly Jobs left in the mid-90s. Commodore declared bankruptcy in 1994, and Atari in 1995.

Jack Tramiel's Personal Side

- Press reports contain numerous stories of Jack's "ruthless" internal management style, pushing subordinates to the breaking point, screaming at some for days, and almost terrorizing his VPs…

- If you read Steve Job's bio, and inside stories of Bill Gates tirades (e.g.: "MicroSerfs" – a book I highly recommend to understand the psyche of programming geeks), such styles are nothing new

- We tend to place tech firm CEOs on pedestals, giving them (too) much credit for the hard work of the hundreds of unsung heroes among the rank and file who do the true heavy lifting day-to-day.

- I've been privileged to work with the best of them: like Macaleer at SMS, Barlow at McAuto, and met many more during our 25 years of consulting for hospitals, and have concluded they are all as human as you and I, with the same foibles & quirks as any woman.

Requiescat In Pace

- Yes, it's sad to lose these early computer heroes as the years roll by and the IT world enters its 66th year, since the ENIAC in Philly in 1945.

- We owe CEOs respect for their amazing accomplishments primarily as *leaders*, able to herd the brilliant "cats" (as beatniks used the term in the 50s!) in programming, marketing and many other departments.

- No, they aren't the *smartest* people in the world, nor amazing engineers creating and assembling chips in a micro-world, nor programmers laboring in logical labyrinths in code... They're **people**.

  - Think of your hospital's CEO: juggling Board members, medical staffs, impossible finances, unions, malpractice insurance, ancillary depts, hundreds (*thousands*?) of RNs, new buildings, regs... now *that's* a tough job!

  - So let's remember their passing, taking pride in *our* industry that has come to dominate so much of human life today, and all within our own very short lifetimes!

"H.I.S.-tory" by
Vince Ciotti

Episode # 50:

MedTake
Part 3

MedTake™ patient data recording directly at the bedside

The bedside recorder features a minimum number of keys to simplify use.
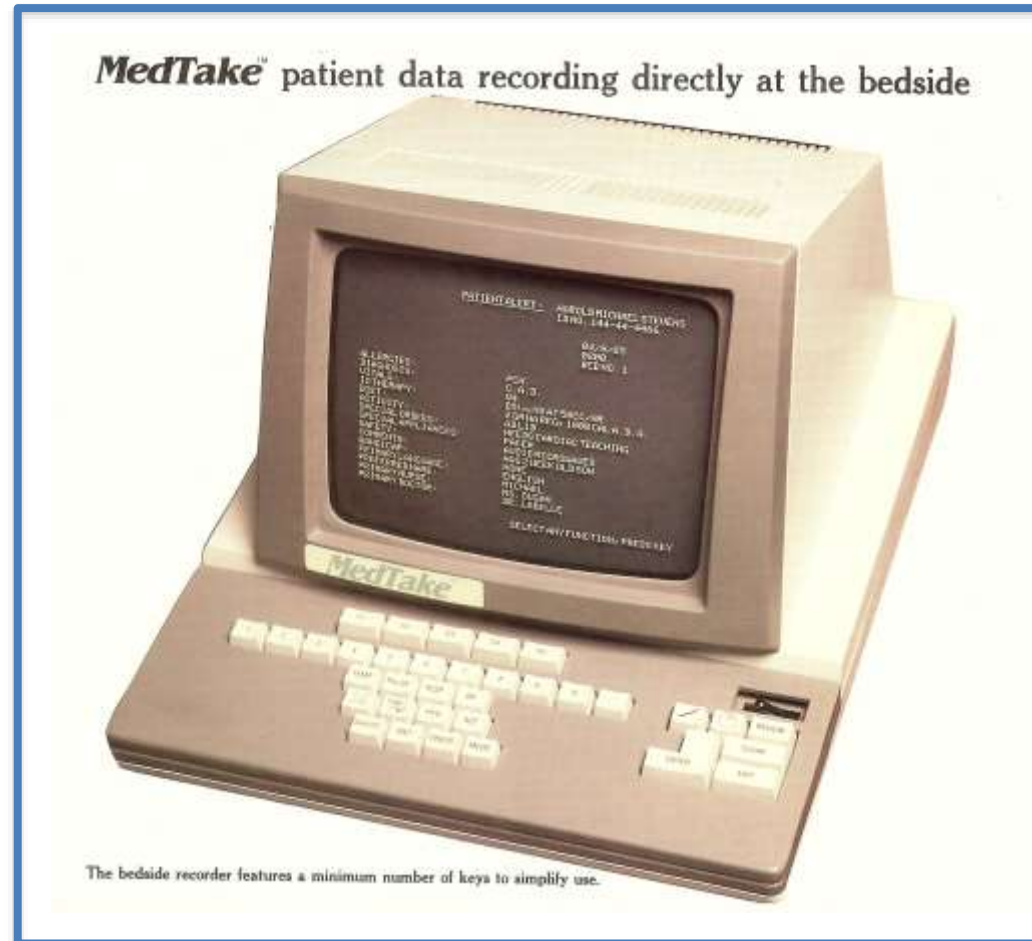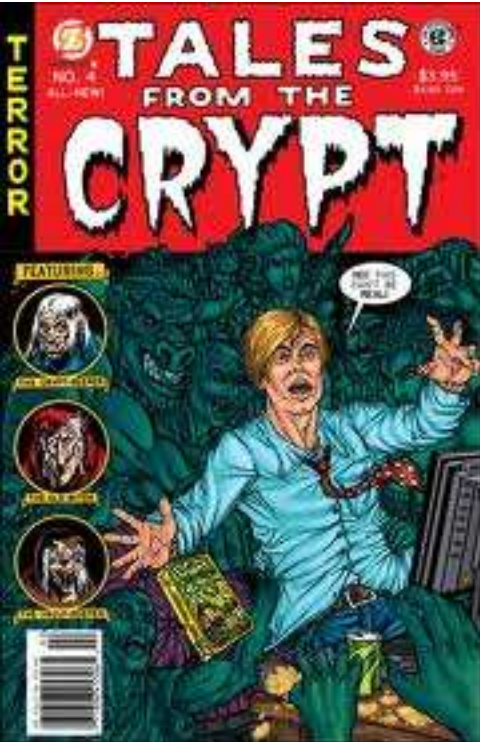
Tales From the Crypt

- We left off our story of MedTake with Jim Pesce's note trying to recruit me to head up sales at MedTake, the extremely modern bedside micro-based system for nursing notes, vitals, etc.

- Jim hoped I could do the same stellar sales job for Micro Healthsystems that I had done for HIS, Inc. in nearby Brooklyn just a few years before.

- So did I, as I received a nice chunk of stock options (Micro had already gone public) and all we had to do was make the first few installs go smoothly so we had some references to sell more.

- So I joined in the fall of 1986 and tried my hand again at helping a start-up make it as big as SMS & McAuto, the giants back then.

- To open the eyes of CIOs who never worked for an HIS vendor, I'm going to tell some inside stories about what goes on inside vendors – might help you understand their *very* different world…

Wow, Some Title!

- First thing, check out the title I had: pretty impressive, huh? That should get me an audience with any Director of Nursing (DON)!

- When I got to West Orange, NJ, and checked out Micro Healthsystems offices, I learned just what kind of division I was "president" of:

  - A *single* FTE! Now, granted, she was an RN, which was a pretty important background to have for a bedside system, but not exactly the "span of control" one would expect of a pres.

  - So, when you meet some vendor rep who is the "Senior VP of the Midwest Region," don't be overawed as they may have 1-2 sales reps under them!

Standing (l to r) Vince Ciotti, president of MedTake Division, Ron Gliates, vice president, product management, Doug Haas, senior vice president of research and development. Sitting (l to r) Jim Pesce, president, Sal Caravetta, founder and chairman.

A 2nd Brave RN!
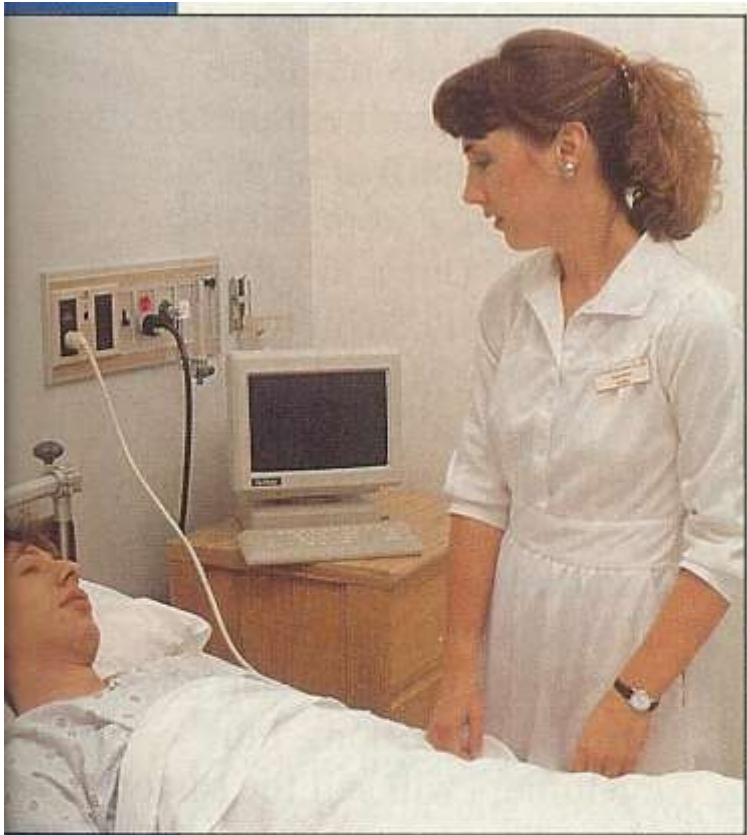
Bedside terminals often facilitate better patient participation in the healthcare process. In addition, the bedside terminal, shown here, is often the topic of conversation between the patients and their visitors.

- My first RN, **Joanne Karl**, left early due to the horrible new commute across NYC to NJ from her home in LI near PTI.

- So we searched for a 2nd RN, and found this brave lady on the left: **Cindy Baker**, who moved from her home in the Midwest to live in a NJ hotel.

- She had never seen MedTake before, but she sure knew nursing, and earned great respect at our early installs.

- So just how long has *your* trainer worked for your HIS vendor? And how many installs on the *product* you're buying?

Impressive Client Lists…

- Besides the 2 pilots mentioned in last week's episode, we had an amazing prospect right across the Hudson at **Mt. Sinai Medical Center** in uptown Manhattan, a huge place and prestigious name!

- Joanne took me there one day for a meeting of RNs piloting MedTake, and I was humbled at the number of Masters degrees and even a few *PhDs* in nursing in the room – what a class outfit!

- What were *we* doing there? They were exploring MedTake for free – for such a big name, here, have few and try them out…

- Seems they had a Board Meeting coming up, and MedTake was to be a star attraction – show the bosses just how advanced their hot IT shop was…

- Right after the Board meeting, they dropped us cold and continued their inhouse path on **IBM's** PCS/ADS.

- So don't get too impressed by big user names – are they *fully* installed? Running all *apps* you're buying?

"Independent" Consulting Studies…

- We faced a lot of challenges from prospects wanting to know how to cost-justify **MedTake** – could we *prove* any real savings?

- Well, we hired our audit firm (one of the Big 8) to do a "time & motion" study at our most advanced pilot, **Palisades Hospital**.

- They proposed observing nurses using **MedTake** to document how much more time they spent at the bedside vs the nurses' station.

- We coughed up the dough, they sent in some pros, and we waited eagerly for the results…

- The results were *inconclusive* – no more time spent at the bedside with or without **MedTake**.

- So we thanked them and shelved the report!

- Keep that in mind net time you read some impressive study proving the ROI of a new system – what about all the studies that ***didn't!?***

Real World Implementation Issues

- We sold <u>United Hospitals Medical Center</u> in nearby East Orange, NJ, an "inner-city" facility if there ever was one! I remember their impressive DON, **Dolores Henderson** *(hello!),* but who was such an amazing leader of a nursing dept that was seriously under-staffed...

- We had an early meeting with her to discuss installing the bedside terminals and, being an inner-city environment, suggested we would bolt the **MedTake** terminals to the tables seen on the right so they wouldn't be targets for theft...

- She stated they had items a large as *vending machines* stolen from floors, so she called maintenance and they decided to bolt the *table* themselves to the walls!

- Hardly an item on an RFP feature checklist

Instant access to patient care information by authorized personnel.

"Expert" Consultants!?

- By 1987, we made good progress with MedTake, getting it live at about 5-6 hospital sites, with a hundred or more devices each.

- I got a call one day from the "assistant" to an big-name consultant doing a survey on bedside systems, so I gave her the full list & #s.

- Then went to **AONE's** big annual show in Chicago where she was speaking, and brought Dolores with me to talk about her go-live.

- At the convention, this "expert" was the keynote speaker, and she proceeded to debunk the whole bedside terminal concept as being balderdash. Said she had done extensive research and couldn't find a *single* hospital really *using* them.

- I was flabbergasted: apparently her assistant (secretary?) had either lost the notes of our phone call, or it was edited out by the "expert!?"

- Always ask *where* those "experts" got their data!?

My Sales Dénouement

- So what happened to MedTake? Sadly, all the sales came form Micro's financial systems clients; me and my sales team couldn't deliver squat…

- On April 1, 1987, Jim Pesce called me into his office and gave me the pink slip - devastating!

- After almost 20 years in HIS, I was a failure…

- It hurt *bad*, but Jim was right – I just did not repeat the miracle of **HIS Inc** in Brooklyn. Jim then hired Bruce Sherr, a superb sales pro with **SMS** roots, and Bruce sold MedTake like hot cakes.

- I called my friends desperately looking for a job, and John Indrigo from **InfoStat** Texas told me about another HIS pro who was starting a consulting firm in NJ – **Bob Pagnotta**, a big name!

- I called Bob and the rest, as they say, is HIS-tory – we are now in our 25th year as HIS Pros. So if you ever get bopped, don't despair – it may actually turn out to be for the best!

"H.I.S.-tory" by
Vince Ciotti

Episode # 51:

Keyboards

Key to the Past

- The last few episodes brought up a fascinating aspect of HIS-tory that covers the roots of one of the most common IT devices:

  - **MedTakes** simple but brilliant idea of removing the keys on the standard "QWERTY" keyboard in lieu of pre-printed menu names RNs would instantly recognize, like "Temp," "Pulse," and "Resp"

  - Jack Tramiel's roots at **Commodore** starting with the repair and manufacture of typewriters, which were also the earliest product of **NCR** whose revolutionary PNUT was a breakthrough bedside device.

Queer sequence: why "QWERTY?"

- This story concerns the millions keyboards that every computer user today has to master to enter even the most basic data.

- Take a look at yours right now: the top row = "**QWERTYUIOP**"

  – But *why?* Why not some other arrangement, like the order of the alphabet itself" "**ABCDEFGHIJKLMNOPQRSTUVWXYZ**?"

  – Wouldn't that make more sense to help find the right key?

  – Indeed, try typing the letters of the alphabet in their usual order and you'll notice whole groups of them are grouped:

    - "**FGH**" and "**JKL**" for example, right in the center row…

- If you're as proud of our IT industry as I am, you might be equally *ashamed* as I am when you learn just why the keys are arranged in the seemingly meaningless sequence of our oh-so-modern **QWERTY** keyboard…

Digital Diaspora

- This story goes back to the middle decades of nineteenth century when there were a number of attempts to replace the mostly male scribes or copyists with a more modern *machine*.

- Check out some of these amazing early versions of typewriters:

1852

Wood!

1870
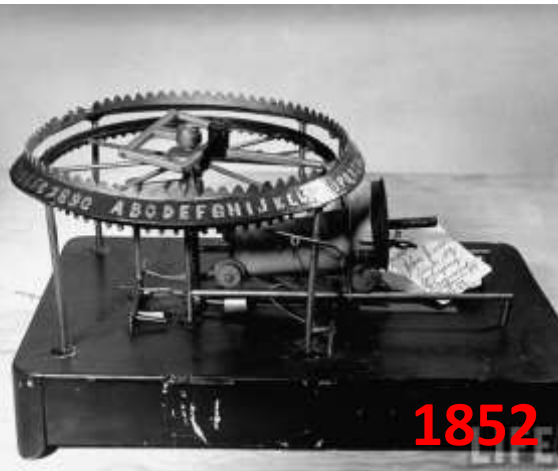
A Truly *Scientific* American!

- **Christopher Latham Sholes**, a retired newspaper editor, was inspired by an article in Scientific American in 1867 to invent and take out a series of patents on a new style of typewriter.

- Prior to **Shole's** machine, none of the devices on the previous page could come near the roughly 25 words per minute of a human scribe, although granted, they were far more legible.

- In a brilliant display of marketing genius, he *typed* letters of introduction to dozens of financiers, and one named **James Densmore** of Pennsylvania read the letter and bought in!

- Over the next 3-4 years, **Densmore's** money enabled **Sholes** to perfect his typewriter, pictured on the right, which was launched in: **1874**

THE FIRST COMMERCIAL TYPEWRITER
MODEL 1 REMINGTON, SHOP No. 1.

Brother, Can You Spare an Idea?

- Big problem encountered with these early "type-writers" (sic) was speed: whenever a typist approached the 25 word-per-minute speed of a clerk, adjacent keys in the early alphabetic order keyboards *jammed*, such as "ABC" and "DEF"

  – So **Sholes** turned to **James Densmore's** brother **Amos**, who had done a study of letter pair frequency: simply move the A, B and C letters to be far away from each other, and even the fastest typist couldn't jam them now!

- So check out your keyboard: look how far these first 3 letters are from each other! Also note how J & K (among the *least* used letters) are right under your index fingers. And 50% of the most typed letters are way on the top row! **Sholes** patented this QWERTY sequence of letters, and the rest is HIS-tory!

Progress!?

- So, to this day, we struggle to hit "E," the most common letter of English way up on the highest row under our left ring finger.

- And "A" way over on the extreme left under our left pinky... Make sense? It did in the 1870s, but surely we "moderns" would correct this silly sequence when we invented computers, wouldn't we?

- In 1936, **Dr. August Dvorjak** pictured on right (and unrelated to Epic's COO!) studied the adjacent letter problem, and came up with a keyboard layout he claimed was 74% faster by grouping common letters.

- So didn't we moderns all switch to this new keyboard?

Dvorak keyboard
A faster, more comfortable typing experience.

- You can buy one for your PC today, but will you? I doubt it, for the same reason all 5,000 US hospitals use MS Windows terminal devices rather than the far more user-friendly Mac OS...

"H.I.S.-tory" by
Vince Ciotti

Episode # 52:

H.I.S.
Stocks
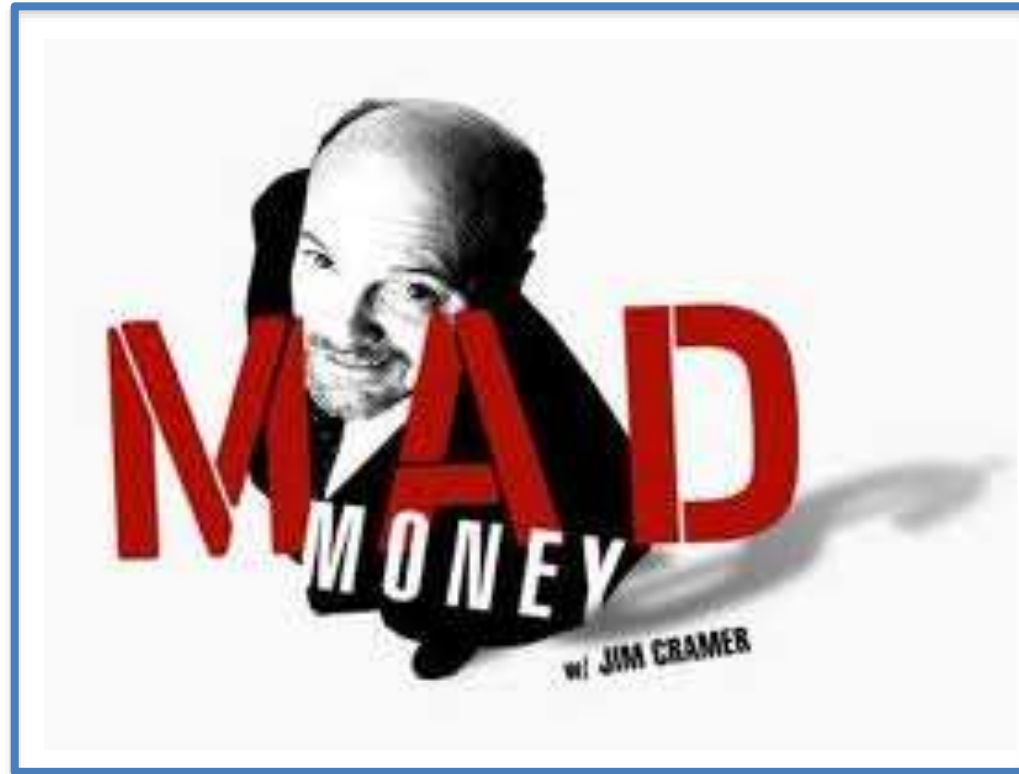
All *"Scripts"* From The Past?

- We all read much about **Allscript's** stock collapse this past week, starting with Mr. HIStalk's commentary on **Jim Cramer's** show.

- I happened to catch the actual TV segment while flipping cable channels when he panned **Allscripts**, after pumping it for years, lambasting them for "not being able to predict their numbers."

  – Instead, he started pushing Cerner, whose financial/stock performance has been astounding since the Millennium (sic).

- This week, I thought it might be interesting to see what HIS-tory might tell us about similar stock collapses in the past, and their impact on the company and its product line.

- So, if you're a **Sunrise** site, before you issue an RFP and pray that Judy might consider you worthy of a response, let's take a look at what happened to some other HIS vendors after their stock price collapsed just like:

Taking Stock in the Numbers

- My personal experience with HIS vendor stocks goes back to the early days of **SMS** when as a young ID in 1969, I received several hundred shares of their paper from their very generous execs.

- Seems Jim Macaleer & Harvey Wilson believed in incenting their employees with a piece of the action so they would be just as motivated as they were to raise revenue & lower costs, the magic formula for "earnings per share," *the* Wall Street mantra.

- When I asked my early boss/mentor, Mike Mulhall, just what the shares were worth, he shocked me with the answer: *≈1¢ per!*

  - Gee: 200 shares at 1¢ each = 2 bucks!?

- But Mike quickly added: *hold on to them*, and told me they might be worth many dollars each some day... I trusted Mike, and so stuck them away in my desk drawer.

A Wall Street Winner!

- If you remember our early episode on **SMS**, the company almost died circa 1971 when the $5M seed money Jim & Harvey got from their Wall St. investors was just about used up – *scary* times!

  - Mike had kindly warned me to get my resume ready just in case…

- However, Harvey's super selling and Jim's tough expense management saved the day, and **SMS** grew nicely over the next few years, going public in 1975 for somewhere around $15 per share.

  - So my $2 had become $3,000 – not bad!

- As a *shared* system, **SMS'** revenue was extremely predictable, with 7-10 year contracts and reliable cash flow, so our earnings always came in as predicted and if **Jim Cramer's** TV show was around back then, **SMS** would easily have made his "recommended" list!

What Goes Up…

- It isn't always peaches & cream on Wall St, however, as we all know from 2008! **SMS** had its ups & downs too, generally following the roller coaster as the bulls & bears fought it out.

- I'll never forget one fateful day in the early 80s when I was selling my last chunk of **SMS** stock to buy our new home. I called my broker, told him to sell, and got the bad news: *not today!*

  - Seems the stock (& entire market) had tanked that very day: my stocks worth $"X" in the morning were now worth ¾"X"!

- So just what does a stock's performance tell you about the company and its products?

- Well, after making *and losing* sizeable sums in HIS vendor stocks from the four firms I worked for (SMS, **McAuto**, **HIS Inc.** and **Micro HealthSystems**), I'll give you the lesson I learned on the following page: *read it well!*

The Relationship Between a Stock Price and the Vendor's Products:

(this page left blank intentionally)

It's Actually Backwards!

- It actually goes the other way: a good product that sells well will bring in lots of **revenue**; add good management of the vendor's **expenses** and you get **profit**, and *that* drives the stock up. Periodic fluctuations on Wall Street are just that: periodic fluctuations...

- Let's look at a few of the not-so-successful HIS vendor stock IPOs:

- Remember the sad story of Sentry Data, Inc., the Tandem-based turnkey mini that tanked when a Wall St. crash in the mid-80s (similar to the 2008 bear) made prospects stop buying. That lowered earnings, and the stock dropped even more...
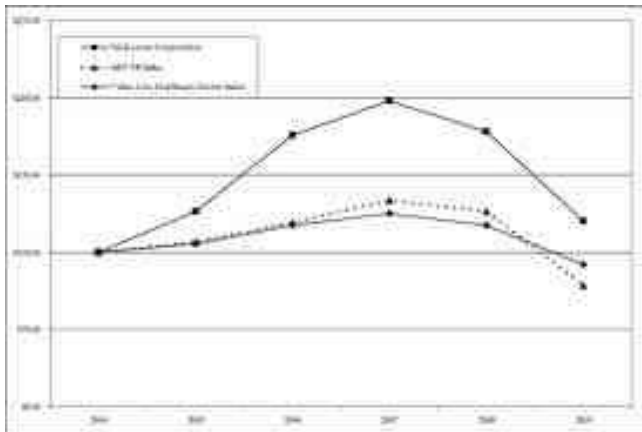
- The deadly spiral literally killed off this fine firm and its promising product. Shelly Dorenfest & I sold it to CDC, so the product lived on for many more years, but that $20 a share stock dropped to a few cents in Chapter XI!

Biggest HIS Stock Crash of All!

- Who can forget the HBOC debacle in 1999, right after they were bought by McKesson. HBOC had been the darling of Wall Street for decades as their model of selling complete turnkey systems let them book the entire sale in the first year, while SMS and McAuto could only book their recurring revenue a little bit each year...

Fuzzy math

Software vendors' contingency agreements source of questionable accounting practice

- The urge to post high numbers led HBO execs to beat **Enron & AA** to the punch.

  - So who keeps saying Healthcare lags behind other industries? Maybe in IT, but not in "creative" accounting!

- McKesson's stock dropped $9 ***Billion*** dollars ***in one day*** when their shares hit the fan! And what was the relationship to their **Paragon**, **Star**, **Series** and (then) **Pathways** product lines?

- Zilch! *Hundreds* of hospitals are still running each of them today, well over 10 years later, and probably will be 10 years from now.

So Is That **All** the **Script**?

- The sad collapse of **Allscripts**' stock due to missing earnings projections tells more about their executive's mis-management than about the fine suite of products they acquired from Eclipsys:
  - **Sunrise** is still a premier "high-end" system with clinical functionality rivaling Cerner & Epic, and their "**SDK**" revenue cycle system has few peers in the large-hospital & IDN market.
- So just what does a vendor's finances tell you about them? Well, if you're buying a stock for your pension fund, *plenty!* Look at:
  - Annual revenue, stock price history, earnings per share, etc.
- But if you're buying an *HIS system*, then spend your time on:
  - Features & functionality, client references, user documentation, implementation work plan, contract terms & conditions, etc.
- After all, what good will it do you to tell an RN struggling with "too many clicks" or an MD who's searching through too many screens:
  - *"But have you seen their stock price lately? It's **up 20%!!**"*

"H.I.S.-tory" by
Vince Ciotti

Episode # 53:

Product Names Part 1

Recap Time

- We have now finished 52 episodes of H.I.S.-tory, which for you math mavens out there, just about uses up the year that Mr. HIStalk kindly gave me to expand on my **HIMSS** presentation in these weekly slide shows.

- So in these final few episodes, we're going to recap some themes that cross over all 4 epochs (main, shared, mini & micro), starting this week with:

- The many **names** vendors gave their HIS products:
    - What vendor had (and still has) the *best product* names, and the few times even they screwed up!
    - What vendor had the *worst* names in HIS-tory
    - What a name can (not) tell you about a product
    - Some amazing product re-naming "games"

The Best Product Names

- Hands-down, my alma mater**, Shared Medical Systems (SMS)**, had (and sold to Siemens) the best product names in HIS :
  - Hot, positive, up-beat, ear-catching, techie, punny…
- Starting back in the 70s when they relied on VP of Marketing John Marshall for names, whose product managers came up with:

  - What else do you call a *single* data base system, released in an era of VSAM files?
  - When **UniFile** didn't respond too well (imagine system response times on 1200 baud lines!), it was re-morphed into:
  - **Focus** – with more canned reports and less "indexed" fields clients could sort on, then
  - **Command** – what a powerful, take-charge ADT/Census system that must have been!

More SMS Winning Names

- And who can forget **"ACTIon"** – **SMS**' name for HBO's "MedPro"
  - Now honestly, which name turns on *your* buying juices more?
- And in the 80's, SMS really hit high gear, with hot product names that amazingly defied the reality of the product they represented:
  - **UNITY** – now *that's* a name for a product that is the synthesis of two disparate platforms: a DEC mini-based front end for clinicals, front-ending a shared IBM mainframe for financials!
  - **EXACT** – the name for a re-packaging of SMS's convoluted pricing formula that competitors knocked for "nickel-diming" clients with optional units and per-page report pricing…
  - **INDEPENDENCE** – hot new name for re-packaging of the same basic software it had been selling for years, but offered now on either an inhouse or shared basis. Appropriate name for a company from Philly, home of:

Some Not-So-Hot SMS Names

- But even the marketing mavens in King of Prussia were not immune to an occasional slip-of-the-tongue, to whit:

  - In the mid-80s, **SMS** responded to the growing turnkey-mini explosion by acquiring a red-hot San Fran-based firm: **Computer Synergy** – not a bad name in its own right, agreed?

  - However, **SMS** had been building it's own ACTIon mini-system, and it first combined the two to create a *poor* product & name:

  - **The Spirit Choice** – not sure who dreamed that one up, but it was a *bad* a name as the mixed product was an HIS! Typically, SMS listened to the market and cleaned up both the name/system:

  - **Allegra** – a much better, simpler name, and a better simpler system that sold well for over a decade until sunset just before Y2K.

An SMS "Classic"

- As it winds down its life (now that Soarian is finally programmed in something more than PowerPoint), we just must pay tribute to one of the best product names in H.I.S.-tory, also from SMS:

  - **Invision**! Launched in 1989, Invision clinicals were as enormous an advance technically, as the name was leading edge from a marketing and psychological perspective:

    - *Invading* the market,
    - A *vision* into clinical data,
    - *New*, unheard of before,
    - A *radical* & exciting concept…

- How angry those Malvern-ians must have been when a common household product manufacturer stole most of its letters for their eponymous product:

Worst HIS Product Names!?

- So who won the other prize for the *worst* HIS product names? My other alma mater: McAuto.

- I guess the airplane parent gave them the predilection for acronyms, but look at this array:

  - HFC = Hospital Financial Control

  - HDC = Hospital Data Collection

  - HPC = Hospital Patient Care (shared)

  - PCS = Patient Care System (Tandem)

  - MHS = Mini-Based Hospital System

  - MRII = Medical Records (2nd version)

- When the mini revolution hit, Mac acquired & renamed several:

  - **LabCom** (Dr. Hick's excellent, high-end LIS system)

  - **RadCom** & **PharmCom** – can't remember where McAuto bought these two systems, but the "Com" suffix sure was prescient!!

Stay Tuned...

- Next week we'll cover some more great/horrid product names and some weird twists in how we talk about our HIS-es:

  - Does *size* (in a name) really matter?

  - What's the *longest* name in HIS-tory?

  - *Modern/weird* app/module names.

  - The "re-name" game (if you can't afford to re-write it – re-*name* it!)

- So what's your most & least favorite HIS product names? Send me yours and I'll blame you: *vciotti@hispros.com*

"H.I.S.-tory" by
Vince Ciotti

Episode # 54:

Product Names, Part 2

Now, Where Were We?

- We left off last week's episode with what I thought were some of the best and worst names HIS vendors ever gave their products:
  - Best = SMS' ACTIon, UniFile, Command, Invision, Allegra…
  - Worst = McAuto's alphabet soup: HFC, HDC, MHS, PCS, HPC
- This week we start with a classic company & product name, sent in by Tracy Gibbs, at PeaceHealth (TGibbs@peacehealth.org):
  - "I worked for this vendor for many years so I am partial:
    - **PHAMIS LastWord**.
  - It was a little corny, but
  many of us really loved it."

- Tracy has hit on both a great company *and* product name, both which represent a fascinating tidbit in HIS-tory all their own…
- Here's where they came from, and how both morphed over time:
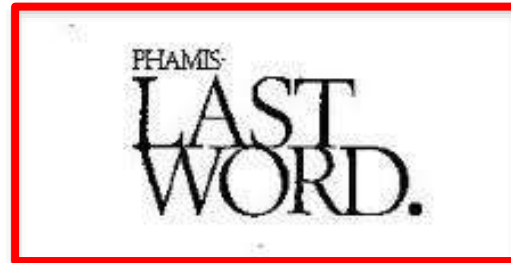
In-PHAMIS?

- Phamis stands for **P**ublic **H**ealth **A**utomated **M**edical **I**nformation **S**ystems, developed in the 1970s by the **US Public Health Service** for its national system of hospitals and clinics by

  – **Dr. Malcolm Gleser**, Chairman & Founder

- It kept track of the medical records of merchant seamen in the Seattle area, who, in a pathetic paraphrase of Ricky Nelson's <u>Travelling Man</u>, had a "chart in every port!"

- As one of the first "E.H.R.s," it enabled caregivers to see a sailor's complete medical history via telecommunications (no web then!).

- **PHAMIS** sold very well, eventually claiming over 100,000 MD users through its long array of prestigious clients, including notables:

  - <u>Mayo Clinic</u> (Minn), <u>Thomas Jefferson</u> (PA), <u>Montefiore</u> (NY)...

- Sold to **IDX** in 1997, who were in turn sold to **GE** in 2005 for $1.2B!

The *Last* Word in *Casting* Care...

- **PHAMIS**' product name is equally fascinating: what would *you* call a system that was the *"last word"* in HIS circles back in the '70s??

- And what would you name it at **IDX**, in order to to *cast* it as the ultimate in patient *care*?

- Two hot names for two hot products in their day... So what would you name it today now that it's the *center* of **GE's** little *city* of acquired HIS products?

- Indeed, the GE name game continues right to this day as GE's acquired products were all re-named:

- MedicaLogic's "Logician" MD EMR became **Centricity Practice EMR**

- Millbrook's practice management system (Registration, Scheduling & 1500 bilings) became **Centricity Practice Management System**

- And don't forget **Centricity** Cardiology, **Centricity** RIS/PACS (ex-Stentor), **Centricity** Pharmacy (formerly BDM), etc., etc., etc.

Just What *Does* A Name Tell You?

- In the IT industry, it is natural for a product name to give some indication of the technical capabilities inherent the device. Computers have usually been assigned model numbers that vary in direct proportion to the size and power of the CPU, e.g.:

  - **IBM's** products ran the whole range of digits in the 60s/70s:

    - Series 1 = a small 16-bit mini introduced in 1976

    - System 34, 36 and 38 were increasingly powerful minis

    - AS/400 = whew, *three* digits, must be far more powerful!

    - 4300/30XX = mainframes with *four* digits – whoopee!

- In fact, these **IBM** computers can't hold a candle to the most powerful computer name in HIS-tory: **Data General's** MV series of minis:

  - Starting with the lowly 6000 series, they grew into 10000, then 20000, and eventually the most powerful of all:

ECLIPSE MV/60000 HA SERIES

The True Relationship Between a Product's Name and its Capability:

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Some *Extreme* HIS Names

- Let's look at some of the strangest/weirdest names in HIS-tory:
  - "**Xtenity**" – (sic! – weird, huh?) It was what **Phillips** called their version of Judy's EpicCare that they tried to sell to community hospitals in the mid 2000's. Needless to say, none bought it...

- Speaking of Epic, they have some interesting names for their suite of HIS applications:

  - "**Resolute**" billing (we're *gonna* get paid!),
  - "**Beaker**" LIS (careful with that specimen!)
  - Other Epic weirdies: Cadence, Willow, OpTime, ASAP, Cardiant, Radiant, Prelude...

- How about the ***longest*** name in HIS?
- IBM's **"PCS/ADS/PA"** = Patient Care System/Application Development System/Patient Accounting - *8* words!

The "Re-Name" Game

- An interesting bit of recent H.I.S.-tory is the various names **Meditech** has used to describe it's latest and greatest successor to their "**Magic**" HCIS, itself supplanted by "**Client Server**" (the quotes are right from their contract – guess they knew a MUMPS-based system with a Windows front-end was hardly 3-tiered!?):

- It started out as "**Focus**," the name for this hot new system announced at their MUSE user group meeting in Dallas in May, 2008. Nice name, but I bet *dozen of* other firms use that name, so it was changed to:

- **Release 6.0** – now that's more like what you'd expect from a techie company – though a bit cold and meaningless to non-IT folks, unless you knew Magic and C/S only go up to release 5.X.

- **Meditech Advanced Technology** (**MAT**) the latest moniker from Boston, although will it be finished before **Magic** & **C/S** hit 5.9?

Most Name Changes in H.I.S.-tory?

- That award would have to go to the family of leading HIS systems that got bought and sold like hot cakes in the 80's mini-revolution. They started out simply enough with pretty good names each:

  - **JS Data** – a very fitting name for **J**ohn **S**aco's pioneering mini

  - **Dynamic Control** – a cute oxymoron for this IBM SYS 38 HIS

  - **IBM's PCS/ADS** - mainframe-based clinical & financial system

- The fun began when they were acquired by a series of HIS firms whose *own* name changes can give you a headache, let alone how they re-named these systems repeatedly, right up to today:

Original	Baxter	Spectrum	IBAX	HBOC	McKesson
JS Data	Alpha	Series 3000	IBAX 3000	Series 2000	Series
DCC	Delta	Series 4000	IBAX 4000	Series 2000	Series
IBM PCS	Omega	Series 5000	IBAX 5000	HealthQuest	Horizon

- Maybe *that's* why Horizon was sunset – they ran out of names!?

"H.I.S.-tory" by
Vince Ciotti

Episode # 55:

The Origins of *Today's* Vendors
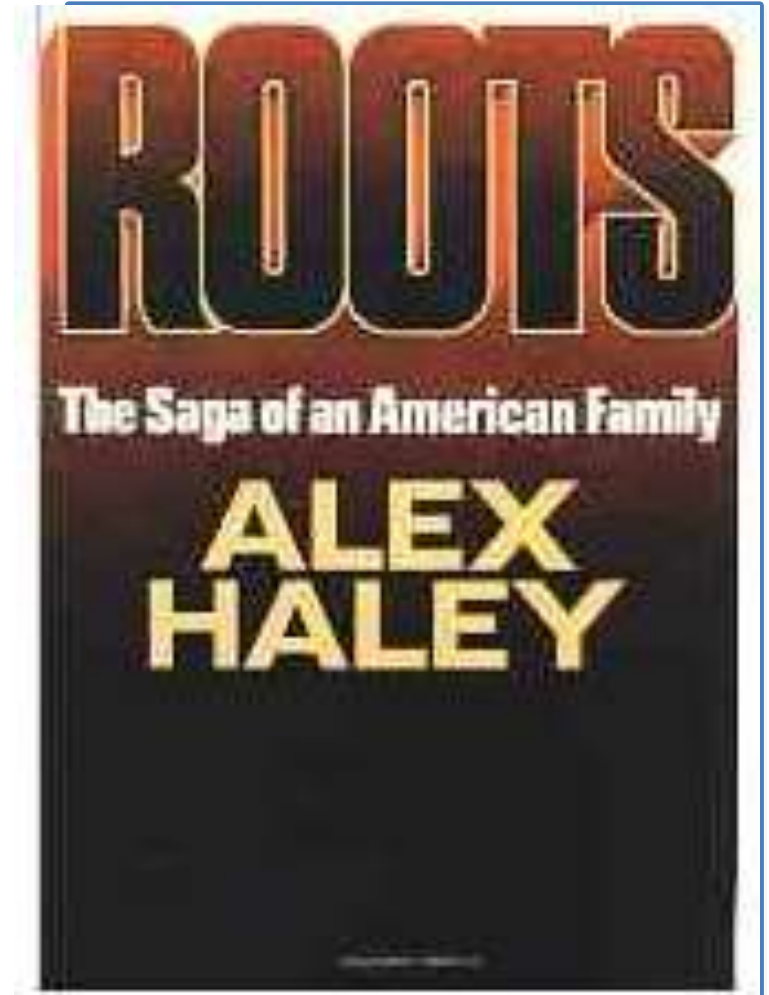
End of the Beginning…

- We've about reached the end of the beginning of the HIS industry:
  - 1960s = **Mainframe Systems**: IBM and the "BUNCH" group
  - 1970s = **Shared System Era**: SMS, McAuto, GE Medinet, etc.
  - 1980s = **Turnkey Mini Systems**: HBO, DCC, SAI, JS Data, etc.
  - 1990s = **PC Revolution**: HMDS, CliniCom, Micro Healthsystems.

- So for a fitting ending to our story, we're going to recount the fascinating origins of today's leading HIS vendors, who pride themselves in their large client bases and impressive annual revenue figures, but who all started as humble as Walt Huff with that Four Phase minicomputer in his garage – or was it kitchen?

- To clear up that question (and maybe create some more), we're once again soliciting help from HIS-talk readers who were there, or know how to reach these pioneers directly.

Know These People?
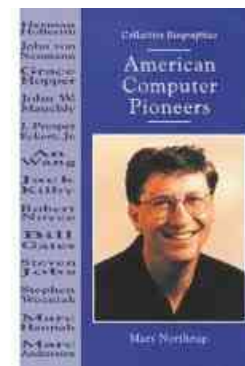
FBI TEN MOST WANTED FUGITIVE

- So just *who* are the pioneers we're looking for? The founders of today's 13 leading HIS vendors, based on their 2011 annual revenue figures:

  - $3.2B = <u>McKesson</u>, née HBOC = Walt Huff, Bruce Barrington, & David Owens

  - $2.2B = <u>Cerner</u>, *still* run by Neal Patterson, co-founded with Cliff Illig

  - $1.7B (est) = <u>Siemens</u>, née SMS (I know Jim & Harvey's story well enough!)

  - $1.4B = <u>Allscripts</u>, née Eclipsys, also founded by Harvey Wilson of SMS.

  - $1.2B = <u>Epic</u>. Gee, I have to wonder, just *who* was it who founded them?

  - $900M (est) - <u>GE Healthcare</u>, née IDX/PHAMIS: last week's Malcolm Gleser

  - $545M = <u>Meditech</u>, *still* run after all these years by Antonino Papallardo

  - $353M = <u>NextGen</u>: new Opus & old Sphere financials by Florian Weiland

  - $174M = <u>CPSI</u> (Computer Products & Services Inc), founded by David Dye

  - $170M = <u>QuadraMed</u>, née Compucare, founded by Sheldon Dorenfest

  - $160M = <u>Keane</u>, parent giant by John Keane, but HIS div. built by Ray Paris

  - $110M = <u>HMS</u> (Healthcare Management Systems), founded by Givens & Doss

  - $70M (est) = <u>Healthland</u>, formerly Dairyland, founded by Steve Klick

What Do We Want to Learn?

- Would be fascinating to hear just what inspired each of these HIS-tory heroes to stick their personal necks out and form a firm way back in time when the building an HIS was a daring long shot:
  - What was their education? How (ir)relevant their major?
  - What computer firm did they come from (besides IBM!?)
  - How did they ever grow so large (major acquisitions)?
  - What in the world are they doing now (if retired)?

So, please, if you know any of these amazing forefathers of our biz and can conVince them to tell their story, please send me their contact info:

- *vciotti@hispros.com*

I'll give you due credit/blame for your help, and we will all be the wiser!!

And The First HIS-tory Hero Is:

- We'll cover them in *inverse* order, as the smaller HIS vendors are the simplest story to tell (McKesson's vendor/product acquisitions alone might take 50 future episodes!), so that makes the first one:

- Healthland – nee Dairyland, founded by **Steve Klick** was back in 1980 when minis were king.

- And I have to start by giving credit to HIS guru **Frank Poggio**, an old friend of Steve's, with whom he shared a love for the frozen arctic tundra of the upper-Midwest when Frank founded HMDS, the first PC-based HIS which we featured in an earlier HIS-tory episode.

- Frank put me in touch with Steve, who gave me a dump of fascinating trivia, and insisted I contact his sales guru, **Mark Middendorf**, for more details (now with McKesson's Paragon).

Stay Tuned…

- So next week, we start with **Steve Klick's** fascinating tale of:
  - He never really did write any agribusiness software/systems
  - How so many decisions they made were "mistakes" at first…
  - The two firms he acquired in two back-to-back phone calls!

- How he came up with that original name
- How he grew the firm from a 1-man band to over 300 hospital clients & employees
- Why he's still working 60 hours a week with his son Brady on new start-ups!

- So, please, if you know any of these HIS pioneers like Steve, give me their contact info and I'll try to get similar stories out of them:
  - *- vciotti@hispros.com*
- Or have them call me at 505/466-4958 (no dots for we old-timers!)

"H.I.S.-tory" by
Vince Ciotti

Episode # 56:

Dairyland

Part 1

The Mini Revolution

HFC Growth Chart
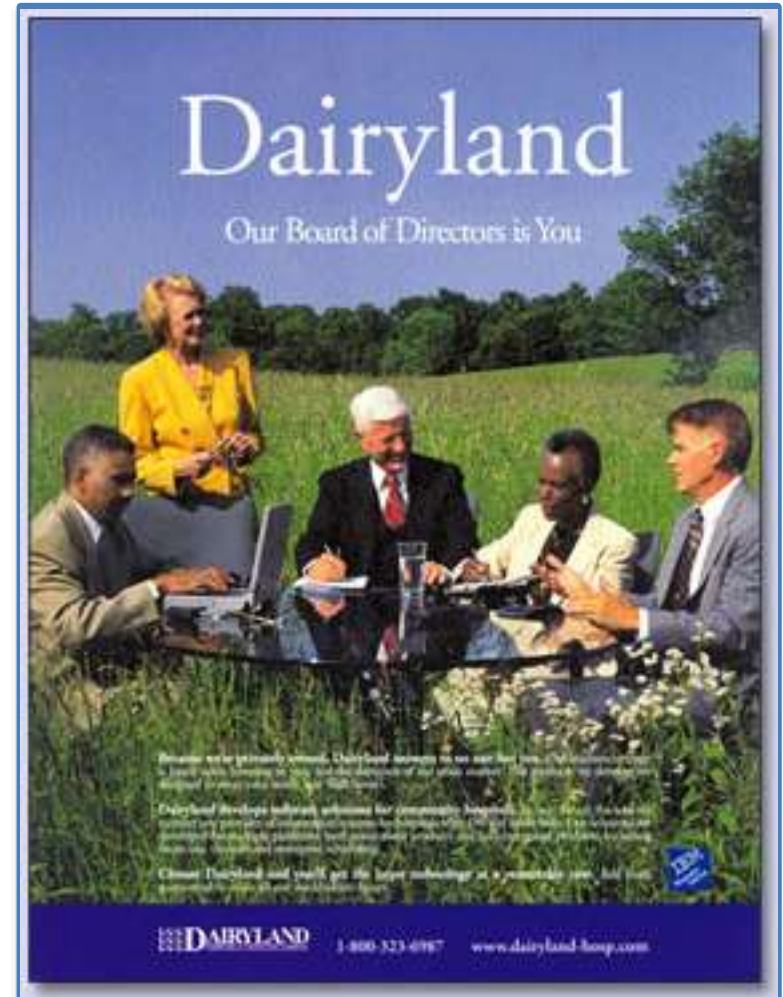
- So first, put your mind back in the 80s, when *shared* systems were dominant:
  - **McAuto**'s "HFC" ruled in # of clients
  - **SMS** had the largest annual revenue
  - **GE's** "Medinet" was still strong
  - **Tymshare** was growing rapidly…
- But mainly in *larger* bed sizes (100+)
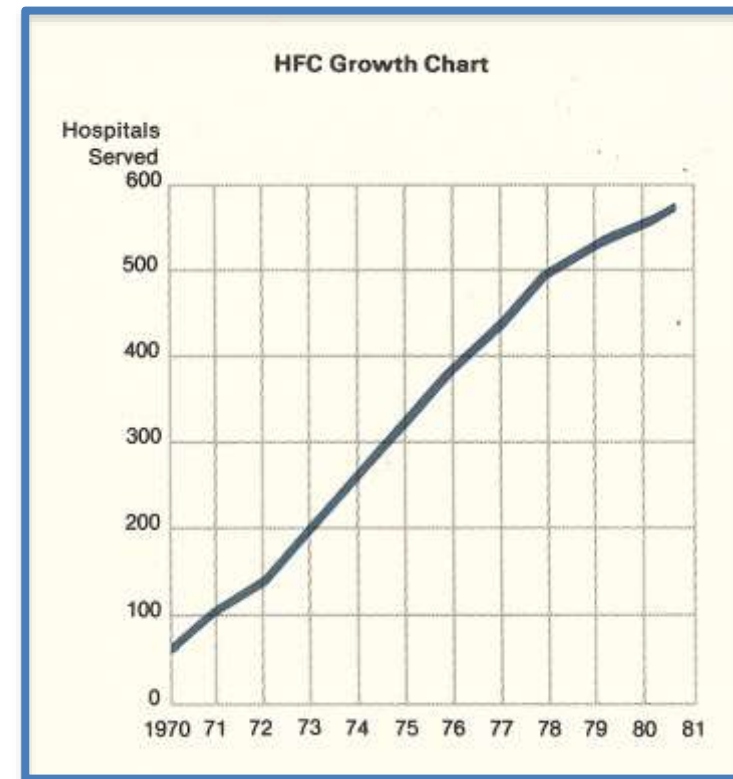
- Smaller hospitals under 100 beds, many of which were in rural settings, could barely afford the next "big thing" then:
- **Minis**, running on hardware from DEC, DG, IBM, Four Phase, HP, TI, etc.
- With software such as **HBO's** MedPro, **McAuto's** HDC, **SMS**' ACTIon, etc.

What's a Small, Rural Hospital to Do?

- Most of these *large* vendors concentrated on where the large money was found:

  – Large hospitals over 100 beds in size,

- Avoiding rural areas like the upper Midwest, where agriculture still ruled, and a 100 bed hospital was big; most were under 25 beds!

- Only a handful of vendors started their business catering to small hospitals by design, such as these two early mini pioneers covered in previous episodes:

  - **JS Data** – John Sacco's Rhode Island mini vendor that ran on **IBM** Sys 34/36/38.

  - **AR/Mediquest** – Andy & Roger's mini-based system that also on **IBM's** Sys 34

Our Next H.I.S.-tory Hero

- Enter another classic American entrepreneur: **Steve Klick,** whose background was surprisingly *not* DP ("IT" then), but rather:
  - **US Army** where he served with the 25th in Cu Chi & Vung Tao.
  - Post 'Nam, Steve punched cards for the local draft board,
  - Eventually becoming a DP auditor for a Fortune 500 firm.
- In 1980, he decided to start a DP firm in his own home town:
  - **Sauk Centre**, which is located next to "nowhere" Minnesota
  - (check it out on MapQuest: you'll see what I mean...)

- The main (only?) business up there was agriculture, so Steve asked his attorney to help him pick a name for a new business in this "Dairy Place" and they came up with "Dairyland," which was the name for many local businesses.

Let's Debunk the First Myth…

- The full name for the firm was **Dairyland Computers & Consulting** which reflected his initial goal to target 3 market opportunities:

  1. *Consulting* to small businesses on the new world of computers

  2. *Software*, such as Payroll systems every small business needs

  3. *Nursing Home* Systems, an early niche no one else was filling

- It turned out, the first objective didn't pan out at all: farmers just weren't buying "consulting" so **Dairyland** *never* did agribusiness!

- But the other 2 were hot, so Steve was off to nearby Glenwood:

  - **<u>Glacial Ridge Hospital</u>** needed a payroll system which Steve agreed to provide.

  - However, he wasn't a programmer, so he ran ads for one and an ex-hippie showed up for an interview named **Mark Middendorf**, and Steve hired him.

Ever Hear of "CADOL!?"

- So what language would Mark write the payroll system in, and what hardware would it run on? Remember, back then those two questions were inextricably linked: RPG = **IBM**, VMS = **DEC**, etc.

- Steve found a payroll system available in object code only; he negotiated a $500 deal for the source code from an odd firm:

  - **C.A.D.O**. – strange name to us now, but back then, so were Four Phase, Microdata, et al!

    CADO systems was another 70's start-up firm formed by ex-McDonnell-Douglas Information System (irony?) engineers in Torrance, CA.

- Their programming language was called **CADOL** (a COBOL pun?), and it was *basic*ally a high-level *Basic* system with 128 characters per record, 128 programs per library, 128 files per directory, etc.

- To quote Steve: "Everything happened by mistake, nothing was planned…" Sure sounds familiar to we user "victims" today, huh?

What Happened to CADO?

- Glad you asked! They were acquired by **Contel** Business Systems in 1983, and concentrated on vertical markets and small businesses systems:
  - Finance (General Ledger, Accounts Receivable...)
  - Wholesale distribution (Inventory, Point of Sales...)
  - Travel (Ticketing, Passenger Management)
  - Medical (Billing, Patient Records)
- Contel later merged with NDS to form **VERSYSS**

- Well, not *that* **VERSYS**, nor quite as fast!

- First systems built were the 8080 "/1" systems with 3K of memory, an 8 inch floppy drive & 1 serial port for 1 user
- The later "CAT" line in 1981 had an integrated CRT and actually looked like a MAC 20 years ahead of it time!

Dairyland's Rapid Growth

- With Steve selling and Mark heading up development, **Dairyland** wrote a dozen software packages and sold them to scores of rural hospitals throughout the upper Midwest, including:

  - **Holy Trinity Hospital** – in Graceville, Minnesota, where Sister Paula ran operations (called "Administrators" back then)

  - **Lakeview Hospital** – in Two Harbors, Minnesota, where Jerry Marks was the Administrator (still friends with Steve today!)

- Jerry Marks was CEO at **Glacial Ridge** - still with **Dairyland** today!

- **Dairyland's** corporate "culture" was extremely client-centric – according to Mark, Steve always did what was right for the clients. He kept close to them on a personal as well as business level, something only a small firm can do:

PLANNING TALK. Dairyland President Steve Klick and Lakeview Memorial Hospital Administrator Mike Walke of Two Harbors, MN, spent several hours on Lake Minnewaska talking planning. They also found time to wet fishing lines!

Fertile Ground…

- In time, Steve grew stretched selling and running the company, so he turned to Mark Middendorf to head up sales & marketing next
  - That's a shocker: anyone ever hear of any other sales rep who started as a *programmer*?
  - And was then promoted to be VP of Sales & Marketing!?
- Mark did so well that by 1985, **Dairyland** had 52 customers in 4 midwest states, most running the 12 financial packages he wrote.
- **Dairyland** soon outgrew its Sauk Center office space, and moved to nearby Glenwood, Minn., where the firm is based to this very day.

So What's Steve Up To Today?

- He's still working 60 hours a week at:
  - Klick Foundation, Klick Consulting, and Healthcare Anytime
- Which I'm sure is no surprise to his old friends (clients or employees). Give him a call or send him an email:
  - *steve.klick@healthcareanytime.com*
  - 612/743-7095

- Next week we'll continue the story of Dairyland as it grew into a larger firm,
- Acquiring other vendors/systems, and
- Eventually being acquired, re-named…,
- Tune in next week for all the details!

"H.I.S.-tory" by

Vince Ciotti

Episode # 57:

Dairyland

Part 2

Dairyland's Rapid Growth

- We left off last week with **Steve Klick** running the firm, and **Mark Middendorf** making the amazing transition from programming to VP of Sales!

- By all accounts, Steve & Mark created an amazing corporate culture of listening to clients.

  - Just how many CIOs can pick up the phone today & reach their vendor's CEO?

  - And how many VPs of Sales tell the absolute *truth,* no matter what, even if it costs them the sale?

DAIRYLAND COMPUTER & CONSULTING COMPANY **UPDATE**

Solutions to Rural Health Care Problems — Summer 1990

Over 200 Attend Health Conference

Once again, the Dairyland Healthcare Conference was a tremendous success! Over 200 users of the Dairyland systems attended the conference, held at the corporate headquarters in Glenwood, MN. Sixty-three facilities were represented from a total of 10 states ranging from as far east as Ohio, west to Wyoming, south to Texas and north from Wisconsin, Minnesota and North Dakota.

Dairyland's fourth annual Healthcare Conference was held the week of June 18. The purpose of the Conference was to unite system users, hospital executives and Dairyland employees for training, networking, sharing new ideas, problems and solutions, and renewing friendships.

Every summer, Conference week holds a great deal of activity for both users and Dairyland employees. Over the course of the five days, a total of 32 educational sessions were offered, covering 12 key areas of the Dairyland system. Individual workshops were also held for users who had specific questions or problems. Outside speakers for Medical Records and Collections came to the Conference to discuss their areas of expertise with users.

Food, conversation and fun were the main objectives of an evening picnic for users, employees and family members. Special awards were presented at an outdoor banquet to facilities who have, in special ways, contributed to the development of Dairyland's system, the success of the Conference or who excelled at conference competitions.

A separate day was set aside for an educational and roundtable gathering of CEOs and CFOs. Outside speakers covered topics such as nursing home cost containment and internal controls, and physician views on the current reimbursement system. The group discussed possible solutions to problems specific to rural hospitals. This session was followed by a competitive golf tournament.

The Healthcare Conferences that Dairyland has sponsored have been held for the benefit of both systems users and employees of the company. The intent is to learn from one another, and to continue developing and improving the systems and services necessary to meet the growing needs of healthcare facilities. For Healthcare Conference 1990...Mission Accomplished!

EDUCATIONAL SESSIONS. Thirty-two educational sessions were offered during the conference. Users learn about Dairyland's reports generator.

PRESENTS AWARD. Mark Middendorf, Executive Vice-President, presents Larry Ravenberg, Administrator of Ely-Bloomenson Community Hospital, Ely, MN, with an award at outdoor banquet.

Inside this Issue of Update:
* Administrators share solutions-Page 2
* Hospital cuts A/R days in half-Page 3
* Sierra Vista uses progressive methods-Page 5
* Readers share news, views-Page 7

So How **Big** Did Dairyland Grow?

- Check out the table below to see how well Steve & Mark led Dairyland's sales surge into the small (<100 bed) hospital market:

	# of Clients	# of States	# of employees	Annual Revenue
1981	3	1	5	<$1M
1985	52	4	30	$3M
1995	250	24	100	$15M
1999	350	30	170	$25M
2005	400	38	250	$33M

- How did they do it? The same way Walt Huff led HBO's charge:
  1. *Very* competitive pricing, undercutting the established vendors
  2. Acquisition after acquisition after **acquisition** after acquisition…
- Check out the following slides for all the gory details on each:

1. **Pricing** - Histor(hyster?)ical Comparo

- Our firm first started doing system selections back in the late 80s when Dairyland was making its run, and here are some amazing figures about just how affordable an HIS system was back then.

- The hospital that made the mistake of hiring us for our unique "Non-RFP" selection process was:

    - **Central Medical Center** ≈100 beds in one of the poorest sections of St. Louis, MO (right in the heart of Dairyland's Midwest turf)

    - CFO was **Steve Berger**, a dear friend who has since gone on to form his own HIS firm: **Healthcare Insights**, with a stunning EIS & dashboard system – check them out at:

        - *www.hcillc.com*

- We wrote an article about it for HFMA Journal:

About the authors

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CIOTTI

Reginald P. Gibson, FACHE, is president and chief executive officer of Central Medical Center, St. Louis, Mo.

GIBSON

Steven Berger, FHFMA, is the chief financial officer of Central Medical Center, St. Louis, Mo., a member of HFMA's Greater St. Louis Chapter and former editor of *Echo*, the monthly newsletter of HFMA's New Jersey chapter.

BERGER

So How Did I Meet Steve Berger?

- Glad you asked, it's a HIS-tory episode all in itself! We started our firm in New Joisey in 1987, and as a frustrated English major (why else would I be writing all these d____ PowerPoint slides?), I searched around for publication I could write articles for.

- Back in 1987, **HIMSS** had very little local presence, and since Controllers usually had IT reporting to them, I turned to the local **HFMA** chapter where, it turned out Steve was the editor of their "ECHO" newsmagazine. So I called him and learned to my shock:

- He was the only other healthcare pro in NJ using a Mac back in 1987! We became fast friends, and I wrote a series of articles for ECHO, one of which Mr. HIS-talk ran a while back when poor Jobs departed.

- So what did Steve B decide to call my series of MIS articles, which is what "IT" was called back then?

  MIS-Information!

1. **Pricing** - the actual $s from 1988

- We solicited bids from Dairyland and 3 of their prime competitors in the under 100 bed market: Spectrum (JS Data), HMDS (Frank Poggio's early PC system) and Amex (SAI – the old "Saint").

- I realize you moderns may not believe these figures, but try to tell you kids just how cheap gas was when you first started driving!

- First, here are the *one-time* (capital) costs from those 4 vendors:

CAPITAL	Dairyland	Spectrum	HMDS	Amex
Hardware	$98,625	$101,784	$103,681	$57,511
Software	$109,500	$102,546	$123,800	$15,000
Miscellaneous	$48,750	$85,000	$54,860	$24,000
Total	**$256,875**	**$289,330**	**$282,341**	**$96,511**

- As you might have guessed, Amex bid a "remote" system (no "clouds" or SaaS back then – boy were we a bunch of old farts…)

- "Miscellaneous" = file conversions, interfaces, travel, which no CIO today ever overlooks today, right!!??!!!!??????!!!!!!!!!????????

1. **<u>Pricing</u>** - the actual $s, cont'd

- Here are the *annual* (operating) costs from the same 4 vendors:

OPERATING	Dairyland	Spectrum	HMDS	Amex
Hardware Mtn	$14,515	$16,080	$18,060	$129,600
Software Mtn	$10,855	$3,684	$1,660	$7,051
Total	**$25, 370**	**$19,764**	**$19,720**	**$136,651**

- We calculated a 5-year TCO (total cost of ownership) that added the capital plus operating costs, with an allowance for annual CPI:

	Dairyland	Spectrum	HMDS	Amex
5-Year TCO:	**$383,725**	**$388,150**	**$388,941**	**$803,940**

- Now, before you all start writing emails to Mr. HIS-talk, these were for primarily *financial* systems, as the term was defined back then, with modern terms in italics/parentheses for more recent CIOs:

  - ADT (*Access*), Billing & AR (*Revenue Cycle*), Medical Records (*HIM*), and general financials: AP, GL, PR, HR, Materials (*ERP*)

1. **<u>Pricing</u>** – compare 1988 to 2012

- Just for kicks, here's the figures we recently received from three leading *mid*-size hospital vendors today, whose names in the columns below have been changed to protect the innocent.

- Granted, these figures are for a 250-bed hospital (twice as big as Central Medical), but for revenue cycle applications *only* (no ERP), so they are almost an apples to watermelons (?) comparison:

	Vendor A	Vendor B	Vendor C
Capital	$5,200,000	$2,000,000	$2,500,000
Operating	$650,000	$350,000	$375,000
5-Year TCO	**$8,500,000**	**$3,800,000**	**$4,400,000**

- Sort of Moore's law in reverse, no? While hardware gets twice as fast for same dough every 18 months, software (and especially implementation) seems to get more expensive every few minutes!

So Who Won at CMC?

- **Steve Klick** used a great phrase to describe Frank Poggio when the two went head-to-head before a hospital's Board in a tough sales situation: **"Frank the Hammer!"** Yes, Frank's **HMDS** won the battle at CMC, not on costs, which were amazingly even, but on his red-hot technology: using PCs rather than minis to build his equally upstart HIS system.

- So next week, we continue the saga of Dairyland into the 2ⁿᵈ reason why they grew so rapidly: *acquisitions*. I sure need help from anyone who knew these AS/400 system vendors' founders:

  - **LeBlanc, Schexnayder & Associates** from Abbeville, Louisiana

  - **Henderman Management Systems**, from Louisville, KY

  - **Integrated Health Systems**, from La Jolla, California

"H.I.S.-tory" by

Vince Ciotti

Episode # 57:

(Health)

Dairyland

Part 3

INTEGRATED COMMUNICATION FOR THE 90'S
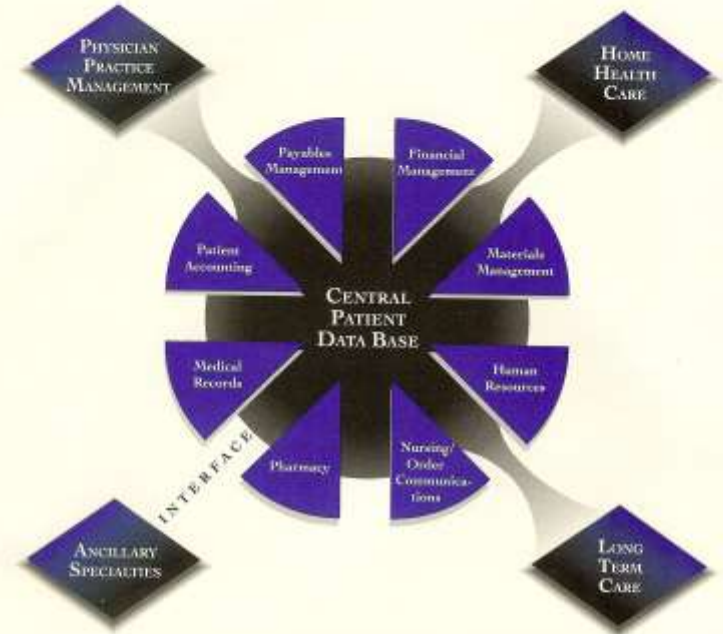
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INFO/CARD 27

Dairyland's 1987 "Vision"

- We left off last week with Steve and Mark growing the firm through low pricing for a surprisingly robust system.

- Steve sent me this design from a **1987** planning meeting where they laid out their R & D plans for completing an HIS.

  - Compare it to the bullets on the previous page ad: they actually delivered!

- This has to go down in HIS-tory as one of the earliest "visions" (their product name)of an EMR, E.H.R, HIE, etc!?
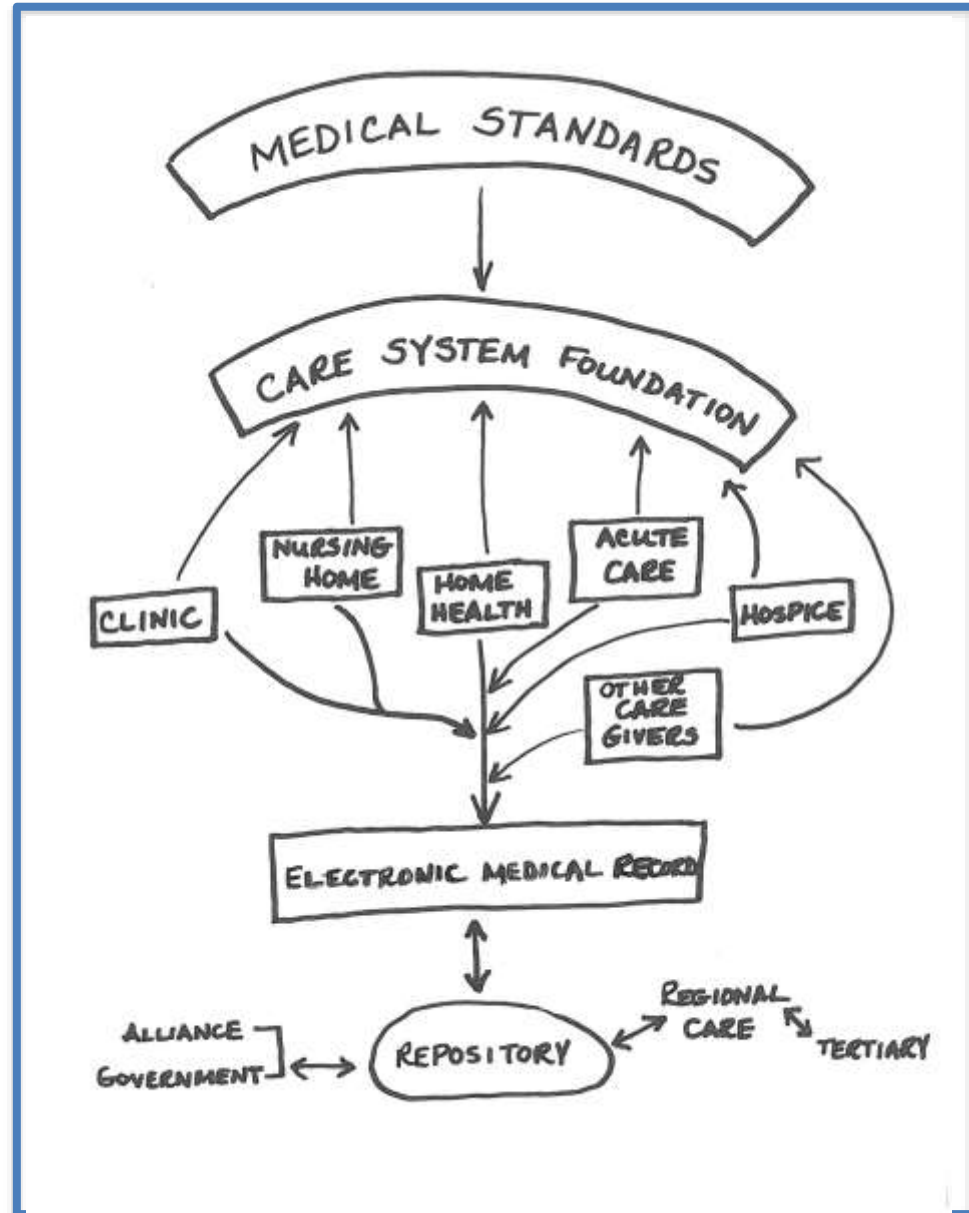
Technology Platform

- Mark Middendorf relates how they actually built it in KADO language on a "monster" CADO mini:

  - *"In the early days we ran a whole hospital's financial system on a machine that had two eight inch, .6MB floppy drives (for mass storage – not backup). The machine had 16K of RAM. When the 7.5MB hard drives came out we really thought we had something – would never run out of storage."*

- Mark has since become <u>Director of Business Development</u> for McKesson's "Paragon" – I'm sure he'd like to hear from old pals:

  - **612/272-1185**

  - *Mark.Middendrof@McKesson.com*

- So to continue our tale of how mark & Steve grew **Dairyland**, we now get into a series of *acquisitions* they made starting in the 90s, some of which will be mini-HIS-tories of other early HIS vendors.

Merger Mania

- By the 1990s, **DCC** (Dairyland Computing & Consulting) had grown to over 100 hospitals and $10M revenue.

- Steve Klick began feeling his Midwest oats and looked around for other small HIS firms to acquire and grow more, and targeted two:

  - **LeBlanc, Schexnayder & Associates** from Abbeville, Louisiana was the first to hit Steve's radar screen: they started as a CPA firm way back in the 60s when Medicare Cost reports drove CFOs crazy. At the request of many hospital clients, they started building various financial modules just like Steve had, eventually building a sizeable client base to where, in 1991, they stopped accounting and concentrated solely in hospital software.

  - They wrote in RPG for IBM's SYS 36/38 minis, like other early HIS-es: JS Data & DCC.

  - Steve started negotiating with them and, concurrently, *another* small start-up:

Phone Frenzy

- **Henderman Management Systems**, from Louisville, KY, who also was writing hospital software in RPG for **IBM** SYS 36 minis and were very interested in Steve's offer.

- Steve went back & forth with them negotiating the $s, and tells the amazing story of finally getting a phone call from one of them accepting his offer, while he heard a series of beeps from another caller trying to get through. He finally did the deal, hung up, the phone rang again and, sure enough, it was the other one!

- So in one afternoon, DCC had acquired *two* competitors that just about doubled its size! Only glitch: different tech platforms:

  - **Dairyland's** "Vision" system ran under AIX on IBM RS/6000s
  - **LeBlanc** & **Henderman** ran under IBM's OS/400 on AS/400s

- The solution? Dairyland now had *two* "visions" for their clients:

  - **Vision 6000** for the "RISCy" crowd, **Vision 400** for the others!

One More Time!

- A few years later, the phone rings again, and this time it's Frank Poggio of **HMDS**, Steve's Midwest neighbor.

- Frank tells Steve about another small HIS vendor up for sale:

  - **Integrated Health Systems (IHS)** - from La Jolla, California. Like both LeBlanc and Henderman, I.H.S. ran in RPG on OS/400 OS, but unlike them, it had a fairly large bed-size client base, from 100 to 40 beds, in keeping with the power of IBM's AS/400. So the Vision 400 product line suddenly was bigger than V6000!

- Shortly after acquiring I.H.S, in 1998, Steve finally kicked back and left Dairyland, and interestingly enough, buying I.H.S. for his son Brady, who runs it to this day under the moniker of **Intelligent Health Systems** (same acronym) based in nearby San Diego.

- They also run **Healthcare Anytime** specializing in SaaS patient portals:
  www.healthcareanytime.com

Getting Confused?

- I am! And it's getting *more* complicated:

- In 2001, Dairyland's new management re-named the firm "**Dairyland Healthcare Solutions**" (DHS), ruling out agribusiness!

- **DHS** continued to thrive after Steve's departure, earning several "Best in KLAS" awards for "community" hospital systems (non-AMC or multis), beating out competitors like **Meditech**, **CPSI** & **HMS** (who can tell you some interesting things about KLAS…)

- Acquisition fever didn't depart with Steve: **DHS** grabbed 2 more:

  - **Advanced Professional Software** (APS) of Waco, Texas, acquired in September, 2008, giving **Dairyland** a foothold in the deep South. The deal added 140 customers on paper to Healthland's 350-customer base, although competitors like **Meditech**, **CPSI** & **HMS** probably garnered their fair share of APS clients who went to market to check out their options…

And Finally…

- **DHS's** final acquisition in 2009 was another Midwest competitor, a hot new HIS start-up named: **American HealthNet** - from (relatively nearby) Omaha, Nebraska, known as **AHN**.

- **AHN** actually started out as **Nelson Data Systems** back in the 80s. HIS-tory hero **Mark Thornton** provided this story – he was **AHN's** VP of Sales back then, and is now with another red-hot start-up:

  - **Prognosis** – 800/745-4712   Mthornton@prognosishis.com

- Mark's **AHN** tale: **Nelson Data Systems** (NDS) was formed in the early 80s by Steve Nelson (who else?), and they developed financial systems for about 50 client hospitals. Two entrepreneurs named Jerry Brown and Arthur Taylor later bought **NDS** from Steve around 2000, and started building a red-hot clinical platform called **Claris** in Bill Gates' .Net, SQL & Windows. **AHN** grew to about 80 hospitals before being gobbled up by **DHS** in 8/2009.

Dénouement…

- After gobbling up all these smaller

  competitors, it is only fitting that **DHS** themselves finally got gobbled – although not by an HIS vendor, but a Venture Capital firm known as **Francisco Partners** from (where else?) San Fran.

  (That name may sound familiar to HIS devotees as **FP** also since acquired HIS vendor **QuadraMed** and **API**, an HR software leader)

- As the last thread in this tangled HIS-tory episode (I promise!), DHS's name was finally changed to rid itself of any vestiges of agri-business (which it never was) or any vestige of its Midwest roots.

- The firm is now officially known as: **Healthland™**

  although I got quite a kick a few year's back visiting their HQ in Louisville, KY (since moved back to Glenwood!), and noticing the sign-in log near the receptionist's desk still said "**Dairyland**!"

  (wonder how many times the old name appears in user manuals?)

"H.I.S.-tory" by Vince Ciotti

Episode # 59:

HMS

Part 1

One Down, 12 to Go!

FBI TEN MOST WANTED FUGITIVE

- Thanks to Steve Klick, we finished the Dairyland saga, and this week continue our story of today's vendors with **HMS** from Nashville, TN.

  - $3.2B = <u>McKesson</u>, née HBOC = Walt Huff, Bruce Barrington, & David Owens

  - $2.2B = <u>Cerner</u>, *still* run by Neal Patterson, co-founded with Cliff Illig

  - $1.7B (est) = <u>Siemens</u>, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde

  - $1.4B = <u>Allscripts</u>, née Eclipsys, also founded by Harvey Wilson of SMS.

  - $1.2B = <u>Epic</u>. Gee, I have to wonder, just *who* was it who founded them?

  - $900M (est) - <u>GE Healthcare</u>, née IDX/PHAMIS: created by Malcolm Gleser

  - $545M = <u>Meditech</u>, *still* run after all these years by Antonino Papallardo

  - $353M = <u>NextGen</u>: new Opus & old Sphere financials by Florian Weiland

  - $174M = <u>CPSI</u> (Computer Products & Services Inc), founded by David Dye

  - $170M = <u>QuadraMed</u>, née Compucare, founded by Sheldon Dorenfest

  - $160M = <u>Keane</u>, parent giant by John Keane, but HIS div. built by Ray Paris

  - $110M = <u>HMS</u> (Healthcare Management Systems), Tom Givens & John Doss

  - $70M (est) = <u>Healthland</u>, formerly Dairyland, founded by Steve Klick

Another HIS-tory Hero!

- Our story starts with the co-founder of HMS way back in 1984:
  - **John Doss** – who time out from his busy golf, er, *work* schedule (wait 'til you here what he's doing today!) to relate how he co-founded HMS along with Tom Givens back then.
- John started his career back in 1972 when he graduated from the U. of Tennessee with a degree in math.
- Seems they didn't offer a degree in "Computer Science" back then, and John remember how all kinds of liberal arts majors (including English Lit. like me!) became programmers.
- John started with **Burroughs**, and then joined **GE**, two of the **B**UNCH **G**roup challenging **IBM** back then.
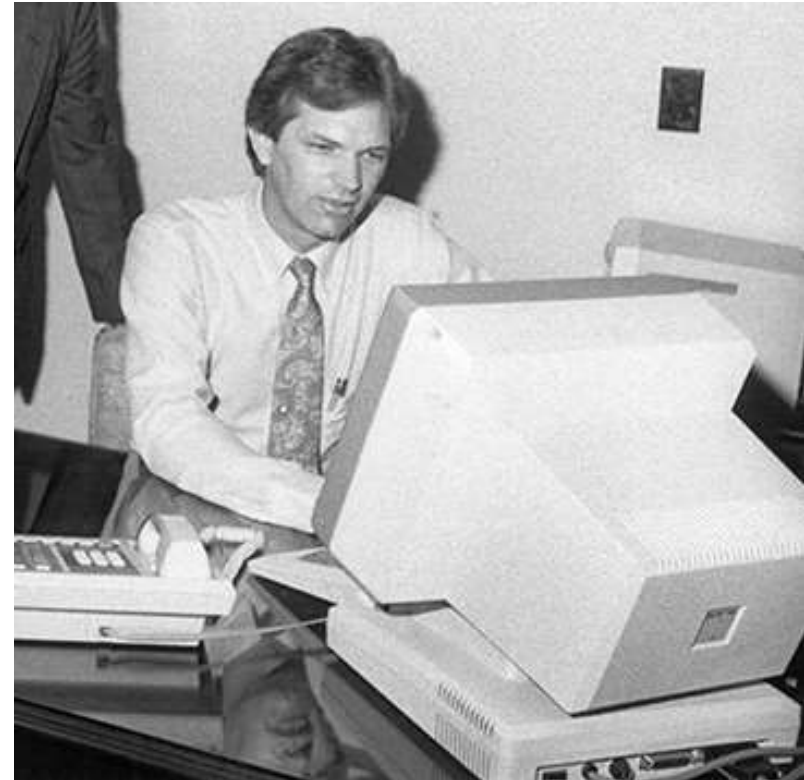
Fascinating *Chain* of Events

- You may remember Jim Pesce's story of **GE** way back in Episode 13A, where Jim told how he joined that leading shared system in the 60s, and how HCA eventually bought rights to their **Medinet** system back in 1975, and continues to run it for their *financials*.

  - (they use a customized **Meditech** Magic for their *clinicals*)

- Well, when John got to **GE**, he immediately began to appreciate how unique the needs of a hospital **chain** which needed:

  - Shared general financials (ERP for you moderns) to share purchasing (AP), materials (GPO), chart of accounts (GL), etc.

- In addition, there was a dire need for corporate reports of key #s such as census, revenue, AR, etc.

  - John worked on providing such reports for HCA out of **GE's** mainframe-based shared system,

  - And became expert in how corporations share a single bank account, allocating funds…

Marketplace MEDICINE

The Rise of the For-Profit Hospital Chains

DAVE LINDORFF

Foreword by Ruth Sidel, Ph.D.
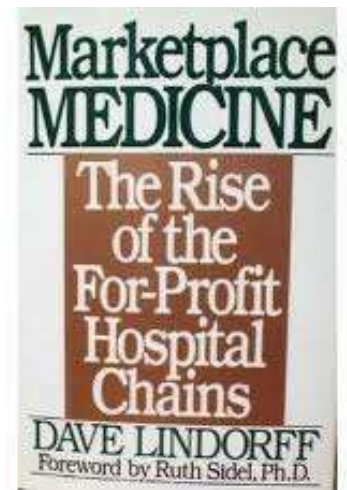
To Ernst & Whinney (Pre-"Young)

- John next went into consulting for one of the Big Big 8: **Ernst & Whinney** (no "Young" until 1989!), where he helped hospitals select systems, learning all about the leading shared & mini vendors who tried to sell primarily to large hospitals who could pay the most for systems.

- His expertise with hospital chains continued as **E & W** had a number of them as clients.
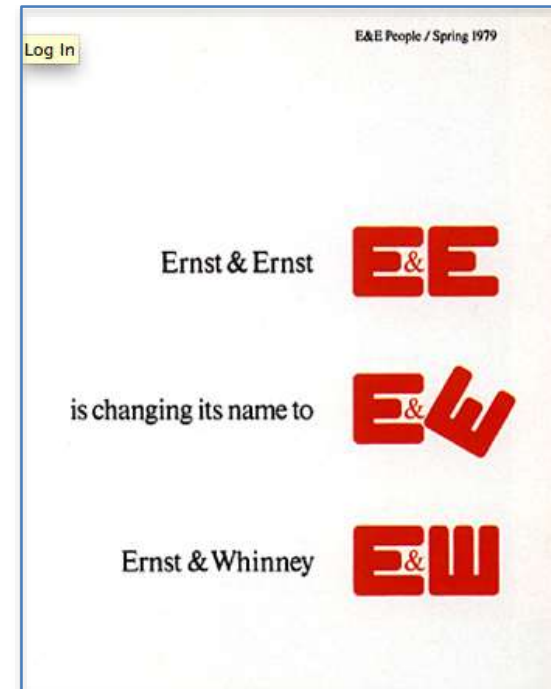
  - John's **Nashville** location was the home of many hospital chains: HCA, HAI, CHS, PSI, etc.

    - Anyone figure out why? Maybe back then when telecomm costs were high, locating in the middle of the US lowered costs!?

  - As Orwell predicted however, the mid-80s soon saw a major change impacting all of society:

Log In   E&E People / Spring 1979

Ernst & Ernst   **E&E**

is changing its name to   **E&W**

Ernst & Whinney   **E&W**

Regan's "Fiscal Responsibility Act"

- John relates how stunned the world was in the mid 1980s, when Washington made **DRGs** the national panacea for growing healthcare costs.
  - (Ironic to be writing this the *day* the Supreme Court upheld "**ObamaCare**," which you either hate or love based on your TV channel...)
- John realized that not only *chains* like his client HCA, but now *every* hospital needed a modern patient accounting system that handle **DRGs**
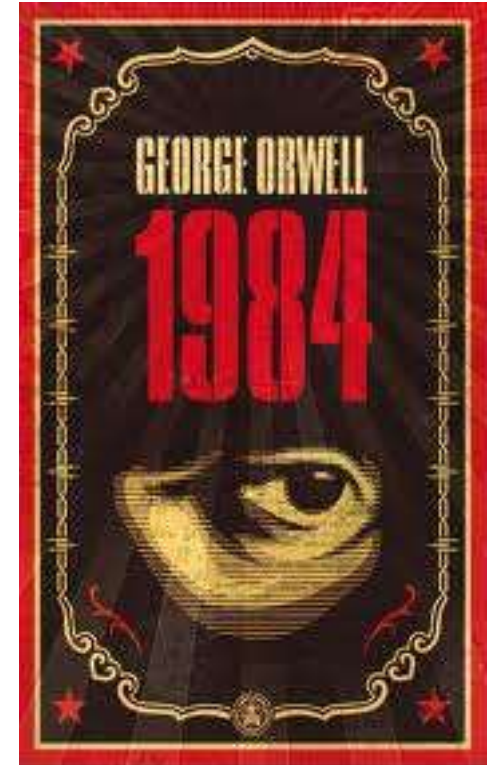
- John felt **DRGs** were a potential nail in the coffin for old HIS systems, confirmed when he met an old high school friend named **Tom Givens** who had designed his own Grouper, programmed by a young hot-rod named **Tom Stephenson**.

So The Stage Was Set…

- So John realized a major opportunity at hand for a new HIS, with this **quartet** of congruent factors:

  1. **Hospital Chains** – right in Nashville needing a new system with the corporate reporting he had become expert in working at HCA…

  2. **DRGs** – posing a major challenge for many aging shared systems like GE's Medinet…

  3. **Small Hospitals** – under 100 beds (the target for most for-profit hospital chains anyway) needing affordable, modern systems…

  4. **People** – his high school friend Tom Givens and Tom Stephenson had the ability & knowledge to write just such a new system…

- As luck would have it, the Toms' current employer, a Nashville-based chain named **American Medical Center**, sold out, Tom received a bit of cash from the sale, and they now had some funds for their firm!

Stay Tuned For More Next Week…

- Next week, we'll continue the saga, this time from Tom Givens, and how they created their start-up HIS vendor **HMS** in Nashville, TN, with some fascinating Tom *shared* (no pun intended!):
  - How they "partnered" with their hardware vendor, who tried to lure them away from healthcare to more lucrative markets…
  - How they sold chain after chain, all based in Nashville, who either bought or were bought in turn, enlarging **HMS**' base…

- And I'll tell the tale of some fascinating counterparts whereby *both* of the two leading shared systems of the day (**SMS** and **McAuto**) also spread their client bases and state/regional presence through similar "exclusive" deals with national hospital chains.

"H.I.S.-tory" by Vince Ciotti

Episode # 60:

HMS

Part 2

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design HMS' premier software product: Monitor. Monitor is a comprehensive financial system designed exclusively for smaller facilities and groups of smaller facilities.

"Some clients realized a data processing savings from 50 to 70 percent using Monitor," Doss said. "That would be eye-opening even if the industry were not heavily involved in cost containment issues."

In just four years, HMS grew to a present client base of 60 clients in 12 states. Approximately 80 percent of those are proprietary for-profit hospitals or specialty facilities such as psychiatric, substance abuse and rehabilitation facilities. "We have found a real niche by becoming the 'data processing department' for these proprietary organizations. They need more service and support than the usual vendor arrangements but cannot really justify an in-house data processing operation," Doss said. "The system has the flexibility to serve single units as well as provide excellent financial management tools."

In fact, Monitor is a two-tier reporting system. At the individual facility, statistical data can be integrated with monetary information to produce financial statements with statistics for both revenue-producing and non-revenue-producing departments. Facility financials are user-defined, providing much needed reporting flexibility.

The second phase is the system's efficient reporting of key financial information to corporate to support management efficiency. Flexible, user-defined consolidations can be generated and changed at any time, and information is available to a facility's management on demand. Reports can also be generated that compare facilities' performance. Presently, Monitor includes an impressive list of fully integrated financial reporting modules with more constantly being developed.

"The hallmark of all these system modules," Givens said, "is that they are easy to use. Additionally, we support Monitor with a 24-hour help line and a comprehensive 'Train the Trainer' program that minimizes the effect of employee turnover."

HMS also boasts an excellent record in keeping clients current with federal and state regulations. When, for instance, Medicare billing procedures have changed, HMS has always updated its clients long before changes became effective.

"There are Goliaths in the healthcare industry, and there are Davids," Givens said. "HMS has found a place for itself in bringing extremely cost-effective systems to the 'little giants.' It's that market that we know best, and it is toward that market that we will continue to expand our energies in the years ahead."

HMS Expands The Horizons of 'Little Giants'

by Daphne Woods

PROFILE

There are many companies that do an excellent job of providing financial software for large hospitals and groups of large hospitals," said Thomas E. Givens, president and co-founder of Healthcare Management Systems (HMS). "That's not the challenge in today's healthcare environment. The challenge is providing financial software systems for the smaller facility and the proprietary network of smaller, specialized facilities — without sacrificing the power and capability that the large systems enjoy. That's where HMS excels."

In 1984, Givens and his partner, John R. Doss, III, HMS executive vice-president, found a largely overlooked niche in the rapidly changing healthcare industry."

Givens and Doss recognized an unfulfilled need among smaller healthcare providers. "We quickly saw that while many leading software companies in the country were providing financial systems to the big healthcare providers," Doss said, "no one was giving the smaller ones much attention. Facilities of 200 beds or less, or proprietary chains of facilities of 200 beds or less, were having to take versions of systems designed for larger facilities which were 'trimmed down,' resulting in trimmed down efficiency."

Tom Givens, HMS President, tries his hand at the new IBM AS/400. Currently, HMS is in the process of migrating its software products to the new computer system.

Givens and Doss combine their collective experience in healthcare finance and computer technology to

2nd of today's "Baker's Dozen!"

- Thanks to co-founder **John Doss**, last week we started off the second HIS-tory of today's HIS vendors: **Healthcare Management Systems**

  - $3.2B = <u>McKesson</u>, née HBOC = Walt Huff, Bruce Barrington, & David Owens

  - $2.2B = <u>Cerner</u>, *still* run by Neal Patterson, co-founded with Cliff Illig

  - $1.7B (est) = <u>Siemens</u>, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde

  - $1.4B = <u>Allscripts</u>, née Eclipsys, also founded by Harvey Wilson of SMS.

  - $1.2B = <u>Epic</u>. Gee, I have to wonder, just *who* was it who founded them?

  - $900M (est) - <u>GE Healthcare</u>, née IDX/PHAMIS: created by Malcolm Gleser

  - $545M = <u>Meditech</u>, *still* run after all these years by Antonino Papallardo

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  - $70M (est) = <u>Healthland</u>, formerly Dairyland, founded by Steve Klick

Another HIS-tory Hero!

- Our story starts with the co-founder of HMS way back in Orwell's year: 1984
  - **Tom Givens** – who just took time out from his busy golf, er, work schedule (he runs a golf club in his spare time!) to relate this tale of how he co-founded **HMS** along with John Doss way back in 1984.
  - **Tom** was a CPA and served as Controller at a manufacturing firm.
  - He was interested in computers, but there were no classes then!
  - He got a call one day from a client **American Medical Centers** (AMC), that had acquired 4-5 hospitals.

Tom Givens, HMS President, tries his hand at the new IBM AS/400. Currently, HMS is in the process of migrating its software products to the new computer system.

How Their Hardware Platform Picked Them!

- It seems **AMC** had bought **IBM System 32** minis for their hospitals, had them installed for about 6 months, but none were being used at all!

- **AMC** hired Tom to straighten things out, get software installed, and put the minis to work.

- One of the first pieces of software Tom had to customize was a *corporate* reporting system for the complex inter-company fund transfers in GL

- **AMC** sold out to another chain and wanted Tom to move to Indianapolis, far from his Nashville home. Tom declined, but took the funds he had earned to start a DP firm, sharing an office with his old High School buddy, **John Doss**, whom we met in Part 1.

Fascinating *Chain* of Events

- In 1984, Tom & John made their first sale, concentrating on the many hospital **chains** headquartered in Nashville, starting with **Community Health Systems (CHS)**, formed by some ex-AMC folks.

- Seem weird for an HIS vendor to start out with **chains**? Check the background of the three leading *shared* systems back in the 70s:

  - **Shared Medical Systems (SMS)** got it toehold nationally through a deal with American Medicorps, Inc, (AAM), who put SHAS into scores of hospitals in Florida, Texas, California, etc., in the 70s.

  - **McAuto** had an exclusive deal with Hospital Affiliates International (HAI), with HFC in their their 100+ sites automating HAI's M.O.R.s (Monthly Operating Reports).

  - **GE's MediNet** automated all of HCA's 100+ hospitals through a shared set of financial apps, that HCA still runs *to this very day!*

Both Chains & HMS Grew

- **Chains** not only comprised a large part of HMS' early sales in the 80s & 90s, they grew rapidly through mergers/acquisitions themselves

- Two of HMS' early **chain** clients bought other chains with competing HIS systems installed:

  – One with **HBO's Star** and one on **Meditech**

- At first, Tom & John feared they'd lose out to these larger systems, but their system of corporate reports on cash & statistics won out!
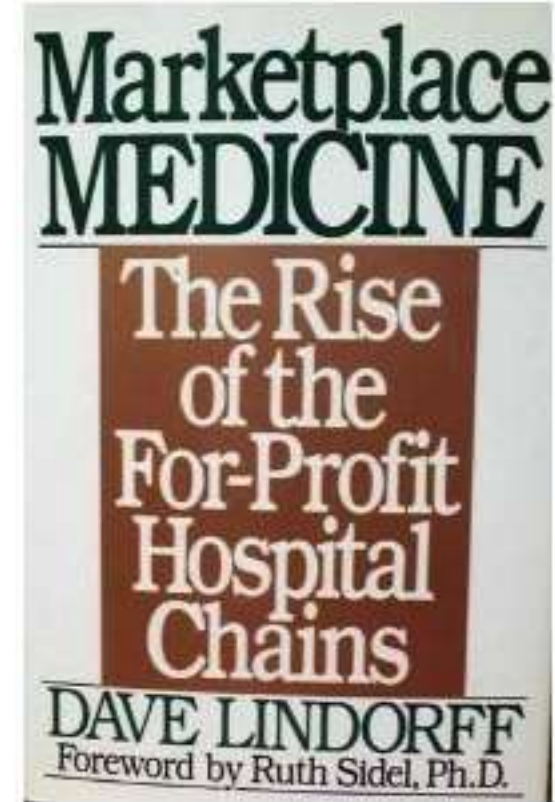
- **Chains** also account for HMS' dominant role in the *small* hospital market: as HCA, AMI, AAM, HAI, Tenet, etc., all learned, the most efficient hospitals are in the "sweet spot" of 100 to 300 beds, the usual bed size for most **chains** today!

Just *Who* Helped Who??

- Since AMC and CHS steered HMS to **IBM** minis, HMS soon became an official business partner of **IBM**, starting on the smaller System 32 and 34s

- **IBM** actually tried to encourage Tom to shift vertical markets to construction, but **HMS**' healthcare sales soon impressed Armonk too!

- **HMS** grew rapidly, both through sales to hospital chains like CHS, as well as in partnership with **IBM** to standalone community hospitals who were flocking to System 3X minis, just like so many other IBM "VARs" (Value Added Resellers) who starred in previous HIS-tories:

    - **Dynamic Control**, **JS Data**, **HCS (NJ)**, **First Coast**, **IHC**, **LeBlanc**, etc.

- Why such a preponderance of HIS systems written in RPG and running on **IBM** minis back in the 1980s? Just take a look at the table on the next page to see just how dominant **IBM** was over their competitors during the minicomputer revolution back in those halcyon days:

IBM's Hardware Dominance

Here's a table from Sheldon Dorenfest's "Guide" in 1988, showing how **IBM** garnered an amazing *40%* of the hardware market in 1986 & 1987

TRENDS IN HARDWARE VENDOR STRENGTH

| | All Community Hospitals | | | |
| | 1986 | | 1987 | |
Hardware Vendor	Number	% of Total	Number	% of Total
IBM	1,177	39.0%	1,358	44.8%
Data General	166	5.5%	176	5.8%
DEC	99	3.3%	153	5.0%
Hewlett Packard	130	4.3%	130	4.3%
NCR	140	4.6%	124	4.1%
Saint	96	3.2%	100	3.3%
Unisys/Burroughs	99	3.3%	96	3.2%
Microdata	45	1.5%	44	1.5%
Unisys/Sperry	32	1.0%	32	1.1%
Tandem	23	.8%	25	.8%
Point Four	23	.8%	23	.8%
Wang	18	.6%	18	.6%
Honeywell	23	.8%	17	.6%
TI	10	.3%	13	.4%
Adds	9	.3%	11	.4%
Cado Systems	8	.3%	11	.4%
Bytronix Corp.	7	.2%	10	.3%
Suppliers With Less Than 10 Appearances	61	2.0%	61	2.0%
Shared Services	851	28.2%	627	20.6%
TOTAL	3,017	100.0%	3,029	100.0%

Of Course We Moderns...

- Now, of course we modern IT sophisticates would never allow such a near-monopoly in our vastly more sophisticated industry.

- Especially in this era of user-friendly E.H.R.s and P.H.R.s (Personal Health Records), where consumer-orientation is paramount...

- Now that **Apple's** iPads totally dominate PDAs (1.3rd of all MDs already!), and *millions* of consumers are finally learning just how easy it is to open up an app in the Mac OS, navigate the web, etc.

- There's just no chance that any hospital today would dare force their MDs and RNs to put up with **Microsoft's** far more clunky Windows OS with it's "too many clicks" approach to everything.

- Why, take a look at the table on the next page to see just how many of America's ≈5,000 hospitals have switched their devices from **Microsoft's** Windows/Office, to **Apple's** Mac PCs & iPads.
  - At an average bed size of 168 beds (per AHA), and ≈500 PCs per facility (Average of 2-3 devices per bed), that makes a total of over **2.5M** PCs:

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Stay Tuned For More Next Week…

- Next week, we'll finish the **HMS** saga, this time bringing the story right up to 2012, featuring an amazing growth to over 600 hospital clients and an annual revenue figure of over $100M.

- A far cry from the 4 FTEs **Tom & John** started out with in 1984!

- We'll also follow the evolution of their product line from primarily financial systems into the clinical apps for RNs & MDs, including the recent acquisition of one of the leading ED specialty vendors…

- Of course, there were some changes in ownership structure, and another VC (venture capital) firm (besides Francisco Partners) buying into our burgeoning HIS/E.H.R. industry…

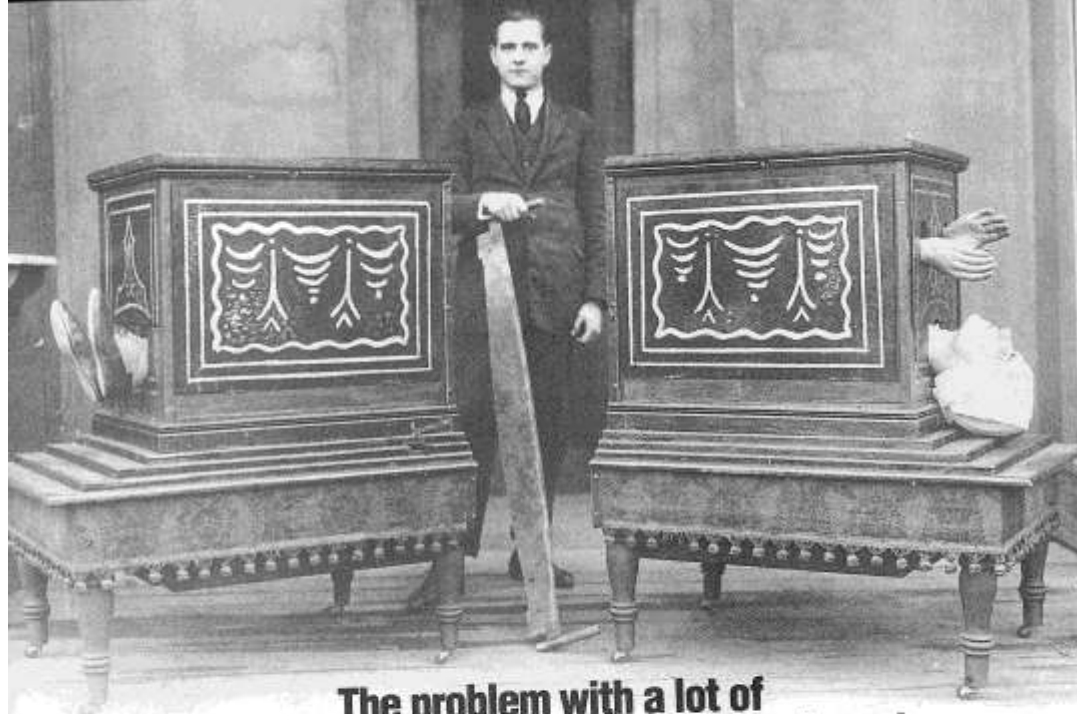- So please, send in any pictures or stories you might have of **HMS** amazing ride for the final chapter!

"H.I.S.-tory"
by Vince Ciotti

Episode # 61:

HMS

Part 3

2nd of today's "Baker's Dozen!"

- Thanks to co-founder **John Doss & Tom Givens**, this week we conclude the 2nd story of today's HIS vendors: **Healthcare Management Systems**

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Amazing Grace Growth!

- In 1984, Tom & John started **HMS** with 2 other employees, and a handful of clients, mostly small hospital chains based in Nashville.

- **HMS** grew slowly in the 80s, then took off in the 90s as their chain clients grew & **IBM's** AS/400 minicomputer sales burgeoned.

- By 1996, **HMS** had 120 clients in 27 states, with about $5M in annual revenue. **HMS** grew amazingly since then, as shown below plotting their annual revenue growth by year in millions of dollars:

Changes in Ownership

HMS CEO Tom Stephenson
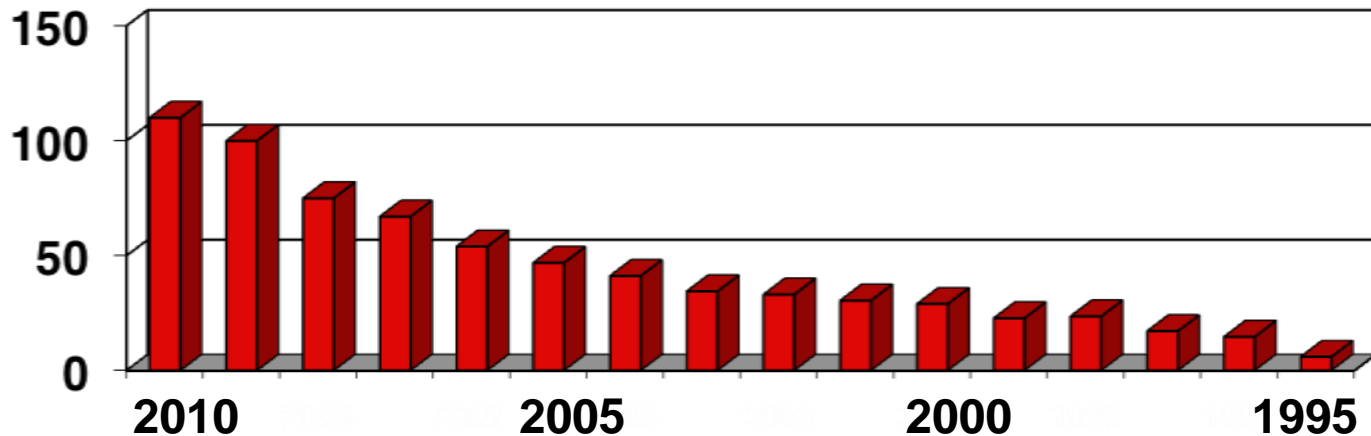
- In 2000, John Doss & Tom Givens restructured **HMS** into an Employee Stock Ownership Program or "ESOP," giving the 100-odd employees then a piece of the action (no SMS pun intended).

- Tom & John eventually stepped down from day-to-day management of the firm in 2005, turning the management reins over to Tom Stephenson as CEO, one of their first 4 employees from 1984.

- In 2007, an even larger change occurred when **HMS** was acquired by **Primus Capital**, a VC firm like Francisco Partners that acquired HIS vendors Healthland (Dairyland) & QuadraMed (Compucare). Who in the world is **Primus**? To quote their press release:

  - "**Primus** is a private equity firm that invests in high-growth companies within the healthcare, business services, communications and for-profit education industry sectors."

Product Growth

- **HMS's** HIS product was originally known as "Monitor" back in the day, and it grew as rapidly as the firm's client base and revenue:
  - From primarily *financial* systems back in the 80s (which is how so many HIS vendors started), including patient accounting (census, billing & AR) and general accounting (AP, GL, etc.)
  - Augmented by their excellent *corporate* reporting for their large number of hospital chain clients like **AMC** and **CHS**.
  - In 2001, HMS introduced an integrated Electronic Health Record and Clinical View, giving clinicians a comprehensive look at electronic patient information, including lab results, vital signs, transcribed radiology reports, the patient's pharmacy profile and more. Per the ARRA stimulus program, **HMS's** E.H.R was certified in 2007 by:

Expansion/Acquisitions

- In 2009 **HMS** announced the addition of an Ambulatory EHR and physician practice management suite, including modules for:
  - Registration, Scheduling and 1500 Billing.

- Probably **HMS**' most daring product biggest jump however was the acquisition of the premier ED system vendor: **MedHost**.
  - I first saw **MedHost** at <u>Olean Hospital</u> in upstate NY a few years ago, and was blown away by how well the nurses and physicians *loved* it, bragging of how much time it saved them.
  - This was no salesman's demo: it was from the actual *users!*

- Like so many vendors, **HMS** is now working on the complex interfaces between **MedHost**, their HIS suite, and ambulatory E.H.R. If they pull it off, they'll may become the "epic" solution for small hospitals!?

Recent System Selection

- To show how well **HMS** matured, the scores below shows how they performed at a system selection at a 50-bed hospital in the Midwest that we helped a few years ago, based on *user* ratings of key steps:

- **Site visits** – to local hospitals running the same apps, *without* sales chaperones!

- **Implementation** – experience of the actual project manager & # of days on-site

- **MD Fair** – concurrent demos in adjacent rooms so MDs compare CPOE & EMRs

- **Contract** – based on our 70-point contract questionnaire on terms & conditions

- **Documentation** – reviewing the actual CDs and on-line documentation by users

- **Phone references** – user-to-user phone calls to over a dozen live client sites

   (not sure how KLAS gets their 90+ point scores – these are from the *real* world...)

Final Score Recap

	HMS	Other	Perfect
SITE VISITS	2,050	1,775	2,500
IMPLEMENTATION	932	676	1,000
MD FAIR	950	925	1,000
CONTRACT	1,840	1,730	2,500
DOCUMENTATION	610	670	1,000
PHONE REFERENCES:	1,520	1,400	2,000
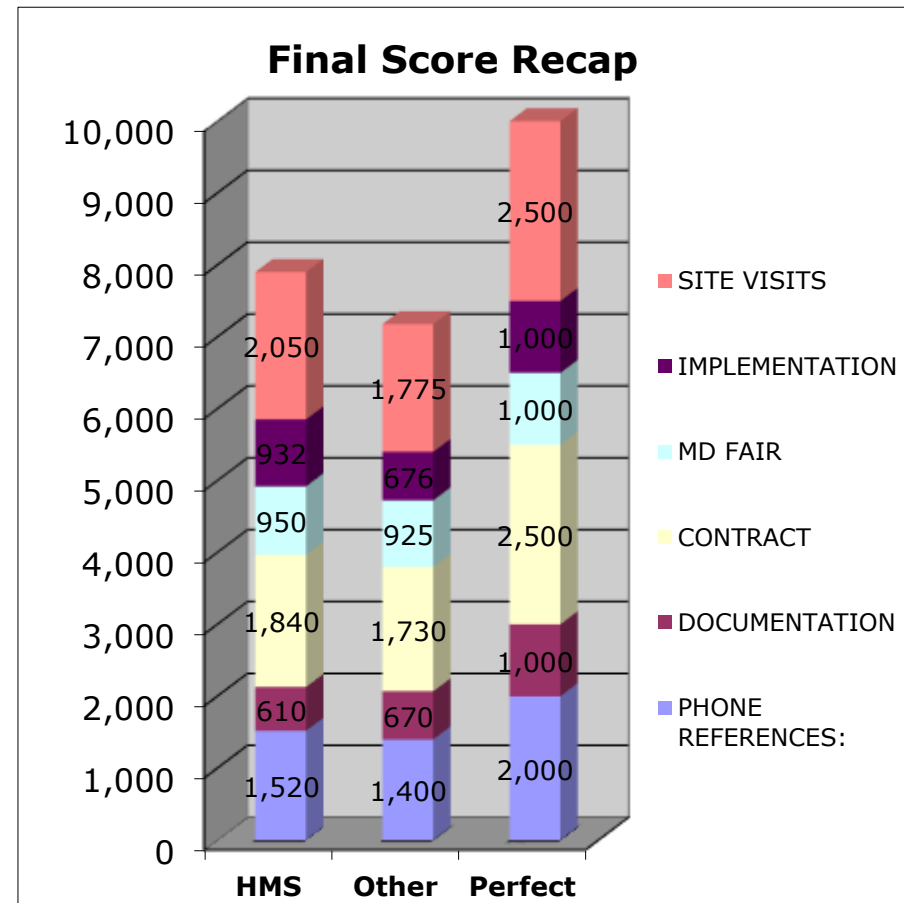
The $64,000 Question?

- I'm sure many CIOs out there are wondering how much such a system costs? Since vendors' prices are confidential and these are *today's* vendors, all we can share are some ballpark figures:

- In the *small* hospital world (under 100 beds) the three leading vendors today in terms of market share and # of clients are:
    - **CPSI** with ≈650, **HMS** with ≈600, **Healthland** with ≈550
    - ("up & coming" vendors include **NextGen** & **Prognosis**…)

- To show why these 3 do so well in this demanding market, where hospitals are *extremely* challenged financially, and usually have IT staffs in the single digits (CAH often have only 1 or 2 IT FTEs!):
    - Capital costs for license fees, implementation and hardware (most run inhouse, few do remote) run from $1M to 1.5M
    - Operating costs for hardware, software and interface maintenance usually runs in the low 6-figures…
    - TCO over 5 years of about $2M (eat your heart out big CIOs!)

The Name Game

- Funny how these 3 small HIS vendors change their product names, today calling their suite of HIS apps "**solutions**," as if their system solve all the *problems* hospitals are facing… To whit:

- **HMS** – the old name of "Monitor" that describes how well HMS' corporate reporting helped chains watch finances. Now, HMS offers "solutions."

- **Healthland** – gave up on "Vision," a propos considering how vendors are always selling the 4th quarter (they just won't commit to which *year*…), and are now calling it "Centriq."

- **CPSI** – rather creatively calls its HIS suite the "CPSI System."

A Final Thanks… and next week!

- Besides Tom Givens and John Doss for this story, I'd like to thank another old **HMS**-er who shared anecdotes from the firm's past :

  - Carl Schneider – who was **HMS**' VP of Sales & Marketing during the halcyon 90s, left the firm for a few years, then came back until just recently. His many old friend can reach him at his new small hospital HIS vendor: Custom Software Systems cschneider@csshealthtech.com 615/714-9717

- Next up for today's vendors will be **Keane** (NTT), whose acquisitions cover many other HIS-tories:

  - **SDS** – Source Data Systems, Cedar Rapids, IA

  - **Infostat** – my old friend John Indrigo from TX

  - **CHC** – Community Health Computing

  - **PatCom** – from Professional Hospital Services

  - **Pentamation** – aka Ferranti, from Maryland
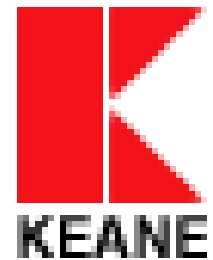
H.I.S.-tory

by Vince Ciotti

Episode #62: Keane

Fr **KEAMED**
HOSPITAL SYSTEMS
A DIVISION OF KEANE, INC.

K KEANE

Keane
an NTT DATA Company

3rd of *Today's* Leading Vendors

- Thanks to founder **Ray Paris** and a host of other HIS-tory heroes, this week we begin the 3rd episode on *today's* HIS vendors: **Keane**

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Actually *Many* Stories…

- The story of **Keane** and its products is one of the most complicated tales in the HIS industry, with the probable exception of McKesson.

- It only *starts* with John Keane's parent and Ray Paris' HSD division, but then also covers a host of diverse HIS vendors & products:

- **Professional Hospital Systems - source of "PatCom," the premier revenue cycle system created by hospital chain AMI in California.**

- **Source Data Systems (SDS), from Cedar Rapids, Iowa, based on NCR's "Mednet" HIS.**

- **Infostat – from Dallas, TX, a UNIX-based HIS that ran on AT&T minicomputers.**

- **First Coast – Charlie Gibb's firm from FLA, whose "APaCS" system ran on IBM AS/400s.**

- **Ferranti from the UK, who bought Pentamation out of Maryland, who had an HIS as well as an industry-leading Long Term Care system.**

- **LabFusion – a leading LIS niche player…**

Keane, Inc.

- Our story starts way back in December, 1965, when John F. Keane formed the firm in a small office above Nichols Donut Shoppe in Hingham, Massachusetts, offering software services to businesses in this mainframe era.

- As a former programmer at IBM, John knew how so many DP shops stumbled self-developing software, and he wisely sold professional assistance with design, programming, consulting, etc. Keane's software assistance sold well, and the firm went public in 1970.

- As a sign of his creativity, when his own programmers ran into a major project cost overrun in 1971, Keane created a new approach to project management called "Productivity Management."

- Sound familiar? "Productivity" became one of the hot buzz words in management consulting over the next 10+ years.

- You may remember it was VP Bill Corum's focus at McAuto in the late 70s (Episode 4)

Keen Management

"The difference between rats and humans is that rats learn from experience."

- Keane suffered the usual ups & downs of any IT organization (remember Allscripts "meltdown" last month?), but the way a firm *learns* from them really separates the ladies from the girls.

- After steady growth for 20 years, a bad quarter in 1986 followed Keane's entry into selling packaged software. Keane dropped the software line and went back to its custom-programming knitting.

- Over the years, Keane pioneered many programming techniques:

  - In 1987, an alliance with Boston University resulted in Keane's intensive **Accelerated Software Development Program (ASDP).**

  - In 1988 Keane developed its **Application Management Methodology (AMM)** basis of the company's FM (outsourcing)

- Keane's biggest corporate client was **IBM**, with whom Keane did about 1/4th of its annual revenues, which were ≈$93M in 1990.

Healthy Vertical Market Target

- Healthcare caught John Keane's eye in the 70s as easily one of the hottest vertical markets with so many (poor) self-developers.

- By the 70s, shared systems had taken off for small and mid-sized hospitals, but many large hospital DP shops still struggled with self-developing software, starting with "simple" financial systems, with the eventual goal of building nursing, order entry & results reporting *from scratch!?*

- Having forayed into outsourcing with his AAM project management approach, John Keane wisely searched around for an HIS guru to head up his foray into the burgeoning field of hospital systems.

- He then acquired Ray Kern's leading FM (Facilities Management) firm, **Innovations in Technology**, John was quite impressed with the background of their sales executive, **Ray Paris**, who had years of experience at **McAuto**, *the* leading shared system at the time.

The Rest is H.I.S.-tory

- We'll pick up our story next week with **Ray Paris**' tale of his early HIS days that included some fascinating tales from the crypt:
  - Interviewing at McAuto with Walter Huff when it was still based in Peoria, IL (not in St. Louis yet!), accepting a job offer from him in 1971, then showing up a month later to find Walt had left…
  - Battling it out with Dick Davis, **SMS**" superstar salesman in NYC:
    - Dick calling him one day and threatening to "eat his lunch,"
    - Then interviewing with Jim Macaleer and Harvey Wilson!
  - Beating Davis & **SMS** out at Hackensack Medical Center in NJ.
  - And heading up sales at Ray Kern's **Innovations in Technology**.
    - After Keane bought IIT, Ray led Keane's HSD through an amazing evolution of hardware platforms, product lines and other HIS vendor & product acquisitions…

Help for the Next Weeks!?

- Indeed, Keane's acquisition-itis was so vast, we'll cover a half-dozen other HIS firms in telling their tale, so if any of you know any stories or veterans from these firms, please help me with:

  - **Professional Hospital Systems** – from AMI in California – you out there Arnie Caplan? And Steve Harris - still with Keane!?

  - **Source Data Systems** (SDS), from Cedar Rapids, Iowa, anyone know the history of this firm??

  - **Infostat** – from Dallas, TX, need to hear from John Indrigo!

  - **First Coast** – Charlie Gibbs and his wife from Florida…

  - **Ferranti** - from Italy, who bought Pentamation out of Maryland; Gary Pollock from Clark Memorial Hospital's Pharmacy department has already promised help!

  - **LabFusion** – a leading LIS niche player… anyone know their inside story? May lad us into a whole LIS shtick…

- Please call 505.466.4958 or email: *vciott@hispros.com*

H.I.S.-tory

by Vince Ciotti

Episode #63:

Keane

Part 2:
Threshold

LOOK F

FAMILIAR?

What ever happened to DP vendors with the *personal touch?*

I need to reduce my receivables to offset the loss of P.I.P.

My data processing costs are out of control!

At KeaMed Hospital Systems, we understand the day-to-day worries and needs of today's hospitals. And, we still remember how to treat a valued customer. Fifteen years in the business is an outstanding teacher. ¶ KeaMed's powerful financial systems are extremely effective in monitoring and reducing accounts receivables. Our on-line, interactive billing systems were specifically designed to keep receivables to a minimum. In addition, KeaMed's systems can easily interface with your present applications. ¶ Finally, our systems are cost-effective. That's how we became one of the largest providers of hospital DP services in the competitive New York metropolitan marketplace. ¶ KeaMed Hospital Systems, a division of Keane, Inc., offers you a total hospital information system. Call R.W. Paris, Vice President, at 1-800-227-3037 or send a letter to his attention at KeaMed, Ten City Square, Boston, Massachusetts 02129.

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HOSPITAL SYSTEMS
A DIVISION OF KEANE, INC.

Keane's *Indigenous* Products

- This week we continue the story of **Keane**, looking at the series of HIS products they developed *internally*, before next week, when we start the convoluted tale of the many systems they *acquired*:

    - PatCom, SDS, Ferranti, Infostat, LabFusion, First Coast, etc.

- When Ray Paris first joined Keane after they acquired Ray Kern's **Innovations in Technology**, their emphasis was on FM, Facilities Management, just like **Keane's** parent did so well through **AMM**.

- By the late 70s, however, the turnkey mini revolution was taking off, and **Keane** wrote its own software for **IBM** System 3 minis.

- The **IBM** mini field was extremely crowded, however, with:

    - John Sacco's "**JS Data**" running on System 32 & 34 minis

    - Dave Pommerance & Mitch Laskey's **Dynamic Control** on Sys 38

    - Intermountain Health Care's **MedSeries 4** running on Sys 34s

    - Plus: HCS, AR/Mediquest, HIS, LeBlanc-Shexnayder, etc.

Creative Alternative…

WANG
WANG LABORATORIES, INC.
LOWELL, MASSACHUSETTS

- Being headquartered in Boston, **Keane** had a number of *local* firms right in Massachusetts manufacturing minis in competition with **IBM**, one of whom had been formed back in the 1950s) by founders Drs. An Wang and G. Chu.

- They chose Dr. Wang's name for their firm, and their engineering prowess was far greater than their product naming ability…
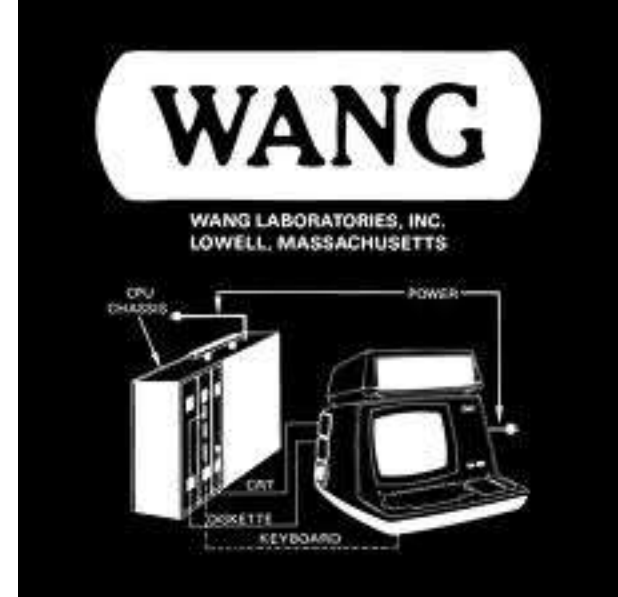
- **Wang** first started out making calculators, all the rage in the 60s, then switched to minis in the 70s.

- **Word Processing** became their hot niche, in this era of typewriters and carbon paper, with their introduction an "**OIS**" (Office Information System)

- Hard to imagine how daring this was in the 1970s, when only secretaries could type!

Hardware Options

- **Keane** started offering its HIS on the **Wang** "VS" mini, which was introduced in 1977, about the same time as **DEC's** VAX line, and both went toe-to-toe with **IBM's** very popular line of minis: Sys 34, 36, & 38

- **Keane** kept their **IBM** mini option, as well as the Wang line, giving clients the option of which platform they wanted, unlike other vendors who made them choose.

- Soon, Ray Paris and Al Gottlieb, **Keane's** tech guru, came up with a better idea:

  - Back in the 70s & 80s, most minicomputers dictated the OS, DB and programming language:
    - **IBM** SYS 3X & AS/400 = RPG, DB2 and OS/400
    - **DEC** VAX and PDP = MUMPS, VMS, etc.

· WANG SOLUTIONS ·

HOW TO MAKE
A LOT OF IBM PCs A WHOLE
LOT SMARTER.

WANG

Pick Your Poison…

- So a hospital DP Mgr had to pick an HIS system that matched their expertise:

- If you were a DEC shop, you would look at Meditech or SMS' ACTIon.

- If you were a DG shop, you'd look at Compucare or Computer Synergy

- How did Wang rate? Way down at #12 per this chart from

Hardware Vendor	1986	
	Number	% of Total
IBM	1,177	39.0%
Data General	166	5.5%
DEC	99	3.3%
Hewlett Packard	130	4.3%
NCR	140	4.6%
Saint	96	3.2%
Unisys/Burroughs	99	3.3%
Microdata	45	1.5%
Unisys/Sperry	32	1.0%
Tandem	23	.8%
Point Four	23	.8%
Wang	18	.6%
Honeywell	23	.8%
TI	10	.3%
Adds	9	.3%
Cado Systems	8	.3%
Bytronix Corp.	7	.2%
Suppliers With Less Than 10 Appearances	61	2.0%
Shared Services	851	28.2%
TOTAL	3,017	100.0%

Threshold Of A Dream

- Ray & Al came up with a daring new concept: offer an HIS that was hardware independent, capable of running on *any* minicomputer!

- For an OS, they chose **UNIX**, developed in 1969 by a group of Bell Lab employees at AT&T.

- Although first developed in assembly language and later written in C, by the late '80s almost *every* computer manufacturer had their own version of UNIX:

  - **IBM** = AIX, **DEC** = OSF-1, **Sun Micro** = SunOS, **Apple** = A/UX…

- There were even different "flavors," such as Berkeley "BSD" vs "Boston"
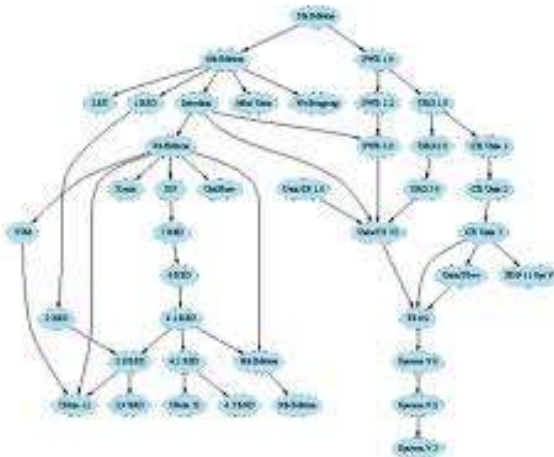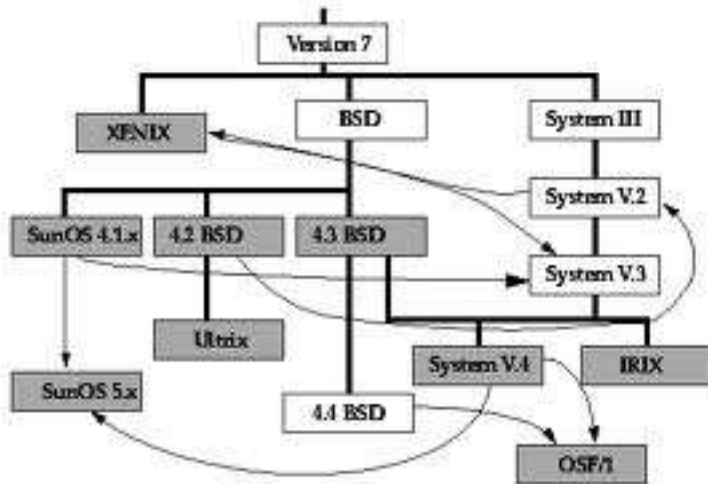
Threshold

- **Keane** named this new system "Threshold," and started working on all the financial and clinical apps needed for a complete HIS.

- So at one point in the 80s, besides the Wang-based HIS, **Keane** could install Threshold on any number of different hardware platforms:
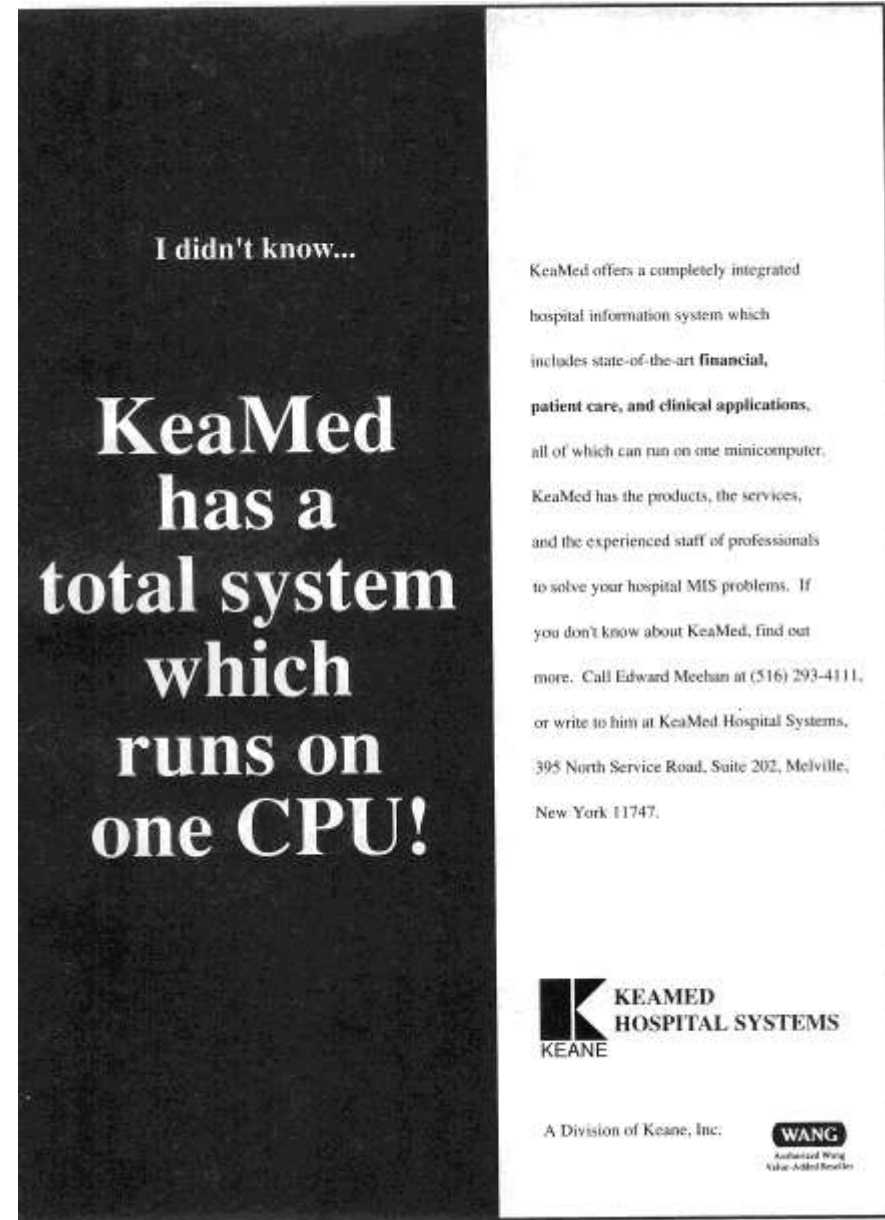
    - **IBM's** Series 3X minis

    - **Burroughs** mainframes

    - **Data General** "MV" series

    - **DEC's** line of VAXes

- Unfortunately, writing the applications wasn't nearly as easy as supporting the hardware!

I didn't know...

KeaMed has a total system which runs on one CPU!

KeaMed offers a completely integrated hospital information system which includes state-of-the-art **financial, patient care, and clinical applications,** all of which can run on one minicomputer. KeaMed has the products, the services, and the experienced staff of professionals to solve your hospital MIS problems. If you don't know about KeaMed, find out more. Call Edward Meehan at (516) 293-4111, or write to him at KeaMed Hospital Systems, 395 North Service Road, Suite 202, Melville, New York 11747.

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KEANE

A Division of Keane, Inc.

WANG
Authorized Wang Value-Added Reseller

Build Versus Buy?

- **Keane** now faced the same dilemma many hospitals faced back then:
    - *Building* the entire suite of apps for an HIS, which takes a very long time, or
    - *Buying* them, a much faster route!
- So **Keane** used its parent company's deep pockets to pursue ***both***:
    - *Building* **Threshold** one app at a time for those UNIX devotees
    - *Buying* up a whole string of competitors, primarily for their client bases, as well as some excellent products as well.
- Next week we start the story of the series of HIS vendors **Keane** acquired, as told from the inside by many HIS-tory heroes like:

    "*As an ex-Ferranti employee (by way of Pentamation), I have to point out an error in your Part 1 of Keane. Ferranti was founded by Sebastian Ziani de Ferranti, who was born in Liverpool, England. He founded the company in about 1885 as a* **British** *corporation (not* **Italian** *as I wrote). Although international in scope, it was always a British company.*" - Gary Pollock, Clark Memorial Hospital - 812.283.2686

- Thanks Gary; as Keane's 90's ad slogan went: "I didn't know that!"

H.I.S.-tory

by Vince Ciotti

Episode #64:

Keane Part 3:

Pentamation

Keane's Mini HIS-tory, cont'd

- As I warned you last week, the evolution of **Keane's** HSD reads like a mini (a pun intended!) HIS-tory of our industry in itself.

- This week, we cover the first of **KeaMed's** many acquisitions that paralleled the development of **Threshold** – it was as if the boys in Boston were hedging their bets: in case that **UNIX** experiment doesn't sell well, we'll buy a bunch of market share anyway…

- Credit for this story of their first acquisition started with **Gary Pollock**, who we heard from last week and who is now the Pharmacy System Administrator at Clark Memorial Hospital in IN.

- Next email from a Pentamation veteran and avid HIS-talk reader:

  – *"Vince – if you need some background on Ferranti/Pentamation, give me a call. I was there from 1982 to 1990. Was one of the lead architects of the Leadership Series."*

  – ***Doug Abel** Netsmart | D: 913.696.2804 | C: 816.654.4504*

Doug Abel's Amazing Tale…

- Doug blew my mind with his memory and these bits of HIS-tory:
  - Pentamation was formed way back in the early days by several **SHAS** gurus! You should remember the story of SHAS:
    - **IBM's** "Shared Hospital Accounting System," developed in Minn. in the late 60s, by a group of small hospitals to share a System 360 mainframe they couldn't afford on their own.
    - The source of **SMS**' "FMS," whose TCE (Transmission Control & Error) reports are still being printed to this day!
- Two of the Pentamation's leaders are pictured here:
  - (sitting) <u>Chuck Wistar</u>, president of Pentamation's *hospital* division (they served many industries…)
  - (standing) <u>Dave Shor</u>, VP of Sales, whose resume alone could be its own chapter of our HIS-tory
    - (and who's current position is the perfect ending for any VP of Sales & Marketing!)

What Do You Call A Leader?

- Pentamation's parent company was founded by Jeff Feathers, and it originally concentrated on the school & education industries. Chuck Wistar & Dave Shor led their foray into healthcare, along with _____ Sullivan (anyone remember his first name?)

- Although originally a shared system, Pentamation jumped on the mini band wagon in the early 80s, on DEC VAX 25s running VMS.
  - Rather than **IBM's** Sys 3X line, which had so many competitors.

- They named their HIS "**The Leadership Series**," and it sold well…

- By the late 80s, they had a client base of 30 hospitals mainly on the East Coast near their Maryland headquarters, and annual revenues of about $25M – not bad!

THE LEADERSHIP SERIES

THE LEADERSHIP SERIES from Pentamation. Built on nearly two decades of experience, more than 1500 installed healthcare information systems, and a commitment to help your institution increase revenues and cash flow, improve productivity, and provide a sharpened focus on patient care.

Let us send you, without cost or obligation, information on THE LEADERSHIP SERIES, and how it is working — today — in an institution like yours. Use the reader service number or for fast response, call David Shor, Director of Sales and Marketing, at 201-543-6414, or write Pentamation Healthcare Systems Division, Box 537, 5 Cold Hill Road South, Mendham, NJ 07945-0537.

PENTAMATION
Healthcare Systems Division

digital
Cooperative Marketing Program

Cute Ad…

- You can sense a bit of their education roots with this cute ad from circa 1988:

- (Bet if they ran it today, **Apple** would sue them as fast as they are Samsung!)

- Pentamation also penetrated the Long Term Care market, which will play a part in our **Keane** tale a little later…

- Pentamation did so well that, they got the attention of a major player in Europe, who was eager to penetrate the US market. Guess who?

Not Misys!

- They came over in the 90s! Back in the 80s, it was another British firm with an Italian founder that made **Doug Abel** & company think they might get a hot red sports car from their new owner!

- **Ferranti** was formed way back in 1885 in the UK, and started its foray into computers in 1949, introducing one of the world's first commercial machines, the "Mark 1" shortly after our ENIAC.

  – Both used vacuum tubes that attracted bugs causing shorts, hence, our modern name for "undocumented features."

Integration.
It Works Because Ferranti Listens.

You're not looking for a product, you're looking for a healthcare information solution that will meet your facility's unique needs. Delivering that solution requires a special skill— the ability to listen. At Ferranti, our system integrators, consultants, analysts, installers, and support teams are all experts in the art of listening. And responding.

Our systems integration approach provides you with an information partner. One who can maximize technology for you, offering options, solutions, and services beyond traditional HIS companies. Because we listen first, we understand your unique requirements and implement a solution to satisfy them. That's why we begin each relationship by reviewing your needs. That's why we deliver systems that are flexible. That's why we're with you long after the system is up and running— with our 24 hour-a-day, 7 days a week, on-line support team. And that's why we build for integration.

Ferranti. Integrating healthcare information solutions for the '90s.

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Healthcare Systems

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Circle Reader Service No. 16

News Flash:

- **Pentamation Sells Healthcare Division!**
  - *"January 14, 1988|by PAUL WIRTH, The Morning Call*
  - *Pentamation Enterprises Inc. of Bethlehem has sold its 210-employee Healthcare Systems Division to a British computer firm for an undisclosed sum.*
  - *Most of the employees in the division, sold to Ferranti Computer Systems Ltd. of Manchester, England, work in the Baltimore, Md., and Norfolk, Va., areas, Pentamation said. The sale was completed Jan. 1."*
- **Ferranti** acquired both divisions of Pentamation: the hospital and long term care group, which had both done very well in the mini movement.
  - They even sold **The Leadership Series** in Ireland with help from "local" **Ferranti**.
- The system was mainly financials with order entry. For an LIS, they partnered with a small start-up firm in Kansas City named **Cerner**…

Ferranti's Dénouement

- Things went fine in HIS for **Leadership Series** for several years, until Ferranti acquired a firm named **International Signals & Control** (ISC), that was actually selling arms illegally at the behest of various US clandestine groups…

- **ISC's** books turned out to be as phony as HBOC's were in 1998, and **Ferranti** declared bankruptcy in the UK in December, 1993.

- **Ferranti** sold its US operations to **Keane** in 1992, which had been in Chapter XI bankruptcy protection due to the parent's woes.

- **Keane** tried to sell its UNIX-based Threshold system to The Leadership Series clients, as "selling into the base" was Ray Paris' mantra with acquisitions, who were bought as much for for their market share as their products.

- So what happened to Dave Shor, VP of Sales?

(Standing L to R): David H. Shor, V.P., Ferranti; Alan Wrenn, V.P., St. Anthony's; Ron Veazey, Dir. MIS, St. Anthony's; (seated, L to R): Charles M. Wistar, Pres., Ferranti; and William Myers, Pres., St. Anthony's.

Ferranti Signs $3.25 Million Deal With St. Anthony's Health Corp.

Shor-fired Success!

- Dave Shor's resume reads like a mini HIS-tory in itself:
  - Per his web site bio: *"Shor has held senior executive positions with Peat, Marwick, Mitchell & Co. (now KPMG), Mc Donnell Douglas Corporation (now Boeing), Ferranti International Healthcare Systems, Pentamation Enterprises, Inc., Micro Healthsystems Corporation (now McKesson Corp.), and University of Maryland Medical System."*

- After leaving HIS, he moved on to (where else?) ***Hollywood***, where:

  - *"Shor served as Producer/ Executive Producer and managing partner of Labrador Pictures (feature motion pictures), Executive Producer for The Flying Cranes (cirque performers-worldwide), Producer for Goodman Productions (live events-Las Vegas), Producer for TJ Productions (live events), Production Adviser/Consultant for Delaware Pictures (motion pictures) and Producer for Liberty Jam Corporation (live concerts of: Eric Clapton, Santana, The Eagles) and he represents performers, writers, filmmakers and other entertainment professionals as manager. Shor was Producer and Executive Producer of the recently released motion picture "Dave Barry's Complete Guide To Guys" and he is presently producing the Broadway adaptation of "Sleepless In Seattle."*

- Can their be a more appropriate ending for a VP of Sales & Marketing!?!?

The Keane Saga Continues

- Next week we'll start the story of another **Keane** acquisition, this one of another pioneering UNIX/mini vendor: **Infostat**

- Advanced thanks to **John Indrigo**, VP there, who told the story and whose resume also reads like a mini HIS-tory!

- Today, John applies his vast vendor experience to the small vendor M&A space at:
  - John P. Indrigo, President
  - **JPI Enterprises, LLC**
  - 813-503-0400 jindrigo@jpi-enterprises.com

INFOSTAT: Making The Most Of Technology

by Loran Walker

UNIX's growing popularity as a standard operations system has had a major impact at INFOSTAT, according to Jerry Neal, president and co-founder of the Dallas-based company which provides advanced information technology to the healthcare industry.

Although UNIX has been around for quite a while, its popularity has surged within the last couple of years. INFOSTAT, which has used UNIX as a base for its software systems since 1985, has been correctly positioned to capitalize on UNIX's new-found place under the spotlight.

"We've always considered UNIX to be a plus because it runs on virtually any hardware," said John Indrigo, INFOSTAT's vice president of Marketing. "Now we have more reasons to appreciate UNIX.

"We've found the new generation of high-performance RISC-based hardware platforms have been specifically optimized for UNIX," continued Indrigo. "And with the inherent portability of UNIX, our customers have been able to take advantage of new hardware innovations without changing software."

This kind of long-term investment protection has been very important to INFOSTAT's customers, which Neal describes as independent, mid-size hospitals throughout the United States.

"Information management needs have exploded since hospitals first invested in computer technology," continued Neal. "Time and again, our customers have been able to rely on UNIX-based INFOSTAT software systems for the additional computer power they've needed to meet their expanding needs."

Another technological advantage of UNIX, according to Neal, is its open systems architecture. UNIX communicates with other computers more easily than any other environment can.

"Open systems has facilitated external reporting for the hospitals we work with and has also made it easier for them to interface with other clinical systems," Neal explained.

Key to INFOSTAT's success in serving the healthcare industry, Neal believes, has been the company's commitment to quality, both in its software products and its relationships with customers.

According to Neal, INFOSTAT's goal has always been to offer cost-effective information management systems that provide customers with the tools to operate efficiently and productively. "That's what led us to UNIX in the first place," Neal said.

Neal added that the stability of the company he co-founded six years ago has also helped INFOSTAT stand out in the industry. "The fact that our management team has been intact for five out of our six years of existence has given our customers the benefit of working with the same people on a continuous basis," said Neal. "This has proven to be as productive for us as it is satisfying to the hospitals with which we work."

Citing INFOSTAT's recent introduction of an innovative nursing care plan system, Neal explained that long-term working relationships with customers has spurred product development.

"Our work with St. Joseph's Hospital in Minot, ND, resulted in the development of a patient care plan system that is being installed there now and will be introduced industry-wide before the end of the year," explained Neal.

Innovative technology has been an important tool for INFOSTAT. Combined with the company's commitment to quality and its service-intensive approach, technology has been key to INFOSTAT's ability to provide creative, reliable and cost-effective software systems to hospitals.

Left to Right: Tom Easterly, vice president, Systems and Programming; John Indrigo, vice president, Marketing; Jerry Neal, president.

Reprinted from *U.S. Healthcare* November 1989

H.I.S.-tory
by Vince Ciotti

Episode #65:

Keane Part 4:

INFOSTAT

PROFILE

INFOSTAT: Making The Most Of Technology

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Reprinted from U.S. Healthcare November 1989

Keane's *Acquired* Products

- This week we continue the story of **Keane**, looking at the other HIS vendors besides Ferranti they acquired while building their own "Threshold" UNIX-based product. Using the deep pockets of their parent company in Boston, Ray Paris' HSD Division also bought:

  - **INFOSTAT** – this week's HIS-tory, which will include the story of an LIS vendor who bought them just before Keane did; next:

  - **Professional Hospital Systems -** source of "PatCom," the premier revenue cycle system created by hospital chain AMI.
    - *Many thanks to Arnie Caplan, my old friend from SMS for the story!*

  - **First Coast** – Charlie Gibb's firm from Florida, whose "APaCS" HIS offered a full financial/clinical suite on IBM AS/400s.
    - *Anyone know where Charlie is, or used to work for him? Please write!*

  - **Source Data Systems -** (SDS), from Cedar Rapids, Iowa, based on NCR's "Mednet" HIS. Ran at over 100+ hospitals in the 90s…
    - *Another vanished HIS vendor – can anyone help with inside details?*

The INFOSTAT Story

- Credit for the inside story of INFOSTAT goes to an old friend: **John Indrigo**, whose resume also reads like a mini HIS-tory:
  - Sold for Burroughs in the late '60s,
  - Then worked with **Bob Pagnotta** at MDS and Tymshare in the '70s,
  - Went to McAuto in the early '80s,
  - Joined INFOSTAT in their 2nd year.
  - Like me, today he is enjoying Medicare & Social Security…

- Actually, John still works in the small vendor M&A space at:
  - **JPI Enterprises, LLC**
  - 813-503-0400
  - jindrigo@jpi-enterprises.com

Left to Right: Tom Easterly, vice president, Systems and Programming; John Indrigo, vice president, Marketing; Jerry Neal, president.

INFOSTAT'S Founders

- INFOSTAT was formed by 3 HIS veterans in Dallas, TX:

  - <u>Jerry Neal</u>, President, former CFO at Dallas Methodist Hospital. How many early HIS vendors were formed by former hospital CFOs? Here's 3:
    - Walt Huff of **HBO** was CFO at OSF in Peoria
    - Frank Poggio of **HMDS** was CFO at U of Wis.
    - Dave Pomerance of **Dynamic Control Corp.**

  - <u>Tom Easterly</u>, EVP of Systems and Programming, who started at HBO, went to Cerner and Eclipsys, and is still working today as Senior VP of Client Services at HIS vendor **QuadraMed** in Reston, VA:

  - <u>Bob Flippin</u>, VP and 3rd founder at INFOSTAT, who started out working for Lou Amoroso at Arthur Andersen, where I met him during my days at **SMS**.
    - Where are you, Bob? Call me! 505/466-4958

Technical Underpinnings

- INFOSTAT's first system ran on the PICK operating system, which you may remember was the OS for **McAuto's** Microdata minicomputer from the UK, which they used in MHS (Mini-based Hospital System), with software from from Skip Shippee's **MSA** from NC (*not* the "MSA" IBM ERP giant!).

- The early INFOSTAT system was comprised of mainly financial apps and ran on **Prime** minis.
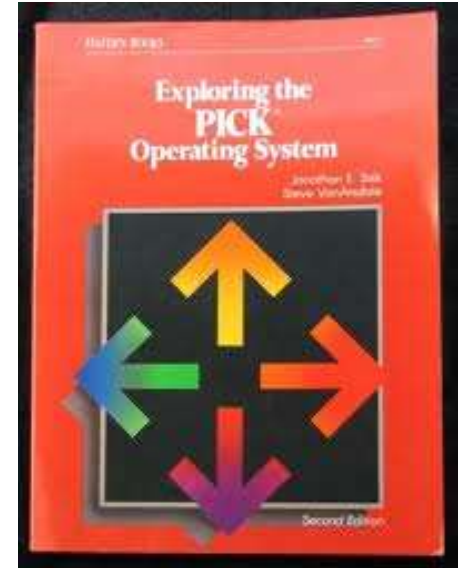
- However, INFOSTAT soon learned that Prime was not exactly a big name in the mini hardware market, dominated by IBM and DEC, and so struck a deal with AT&T when they were trying to penetrate the mini market with their "B3 XXX" series of minis, also known as the "killer bee" series!

Slight Problem…

- INFOSTAT featured real-time processing of both census and financial transactions, which sure beat the batch updates of shared vendors like SMS & McAuto…

- However, AT&T's 3B line of minis turned out to be a tad slow at the end of day when all the files had to be backed up. This series of batch jobs usually started at midnight and was supposed to end before morning when hospitals stated entering the next day's admissions…

- It seems the 3B was as slow at the day-end job as it was fast for real-time processing, and the night-end job ran until 10AM the next day!

- John Indrigo saved the day when he found these HP 9000 minis with RISC architecture, that cut the day-end processing job to 2 hours. John demo'd 6 clients the new HP box and all 6 switched to HP from AT&T! This also entailed switching from the PICK to the UNIX OS, which also gave the ability to run on DG and IBM minis too.

INFOSTAT + UNIX = *HOT!!*

- UNIX's growing popularity in the mid-80s created a wave that INFOSTAT rode well, just when Keane was using it for Threshold!

- Here's some quotes from INFOSTAT execs in a 1989 interview:

  - "We've always considered UNIX to be a plus because it runs on virtually any hardware" – **John Indrigo**, VP of Marketing. "We've found the new generation of high performance RISC-based machines have been specifically optimized for UNIX. And with its inherent portability, our customers can take advantage of new hardware innovations without changing software."

  - "Open systems has facilitated external reporting for the hospitals we work with and has also made it easier for them to interface with other clinical systems." – **Jerry Neal**, President. "The fact that our management team has been intact for five out of our six years of existence has given customers the benefit of working with the same people on a continuous basis."

  - Jerry went on to expand on an innovative new clinical application: "Our work with St. Joseph's Hospital in Minot, ND, resulted in the development of a patient care plan system that is being installed there now and will be available industry-wide before the end of the year."

Sales Successes

- With the new "open" line of minis, INFOSTAT sold very well, and John Indrigo's sales efforts netted over 50 hospitals all told, mostly in the small to mid-size range with under 250 beds, who were the bulk of mini sales back in the 80s. Larger sites still ran mainframes.

- John became the president of INFOSTAT during this transition from Prime to AT&T to HP. INFOSTAT grew so well, it attracted an offer from another mini-based vendor in Texas: **Community Health Computing** (CHC). Some day we'll have to cover the whole world of LIS vendors, but **CHC** is a fascinating first dive into this niche world:

Founder
Baker Mitchell

  - **CHC** was founded by Baker Mitchell who cut his healthcare teeth at the M.D. Anderson Cancer Center in Dallas where he headed up bioengineering in the 60s.

  - In 1968, he formed **CHC** and built a high-end LIS that sold very well in the large hospital LIS market: 250 beds & up.

CHC's LIS Pitch

- Check out this classic 2-page ad on how well CHC pitched its LIS:

Wrong Size!?

- IN 1991, CHC acquired INFOSTAT, CHC figuring that by combining their LIS with INFOSTAT's suite of HIS apps, financial and OE, they would have a world-beating "total HIS" offering, which does make sense on the surface.

  – Shades of LIS vendor Citation buying Frank Poggio's HMDS HIS when *both* ran on revolutionary PC platforms in the late 90s – creating a total HIS on PCs

    - However, CHC's client base were all large hospitals (250+ beds), while INFOSTAT's were mostly small (<250), so the client bases just didn't buy the other product...

    - So in 1995, after 4 years of trying to sell the mis-matched systems, CHC gave up the chase and sold its INFOSTAT division to our friends at Keane. Keane did not try to sell the INFOSTAT's HIS product, but rather its own Threshold and another one which runs *to this very day* that we'll begin to tell the story of next week.

"H.I.S.-tory" by Vince Ciotti

Episode 66:

R.I.P:
Dick Schopp
A True HIS "Pro"
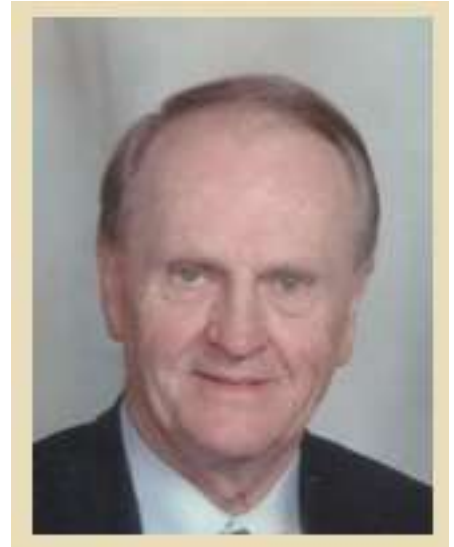
Another Sad Day in HIS-tory...

- Very sad news last week about the parting of a long-time friend and true "HIS pro:" Dick Schopp.

- So we're interrupting our story on the many vendors Keane acquired to pay tribute to this HIS veteran, who was not only a great human being, but also a consummate business professional.

- It's sad that as our industry matures we are losing more and more of these HIS-tory heroes like Dick and Bill Corum, so join me in reminiscing about this great guy.

Richard A. Schopp

Born in Pittsburgh, PA on Aug. 24, 1936
Departed on Aug. 16, 2012 and resided in Warrenville, IL.

Visitation: Sunday, Aug. 19, 2012
Service: Monday, Aug. 20, 2012
Cemetery: Interment Private

Please click on the links above for locations, times, maps, and directions.

SIGN GUESTBOOK   VIEW GUESTBOOK

On Thursday evening, August 16, Richard A. Schopp, beloved and dedicated husband, father, grandfather, great-grandfather, brother and friend, was relieved of his heroic earthly struggles and entered into the gates of heaven. He left us peacefully surrounded by his family and loved ones in prayerful vigil. He was just shy of his 76th birthday and leaves behind a loving legacy.

Dick was very active in his church, an avid golfer, and bridge player. He loved greeting everyone who came to 9:30 mass, was active in R.C.I.A., Small Church Communities, and the Knights of Columbus.

He was an owner of Healthcare Computing Strategies that he and his wife grew to a 100 employee company. Prior to this he worked for McDonald Douglas for 25 years.

Dick was also a very dedicated family man. He was an extremely positive patriach and mentor to all of his children, grandchildren and everyone he touched. He was a true friend to everyone he met. Absolutely one of the best and last of his kind, with strength of character that will remain unmatched. He will truly be missed by all.

He is survived by his loving wife of 55 years, Patricia Rosati Schopp, daughters Patti (Kevin) Collins, Cheryl (Rex) Jandernoa, Karen (Tim) Warner, Rosanne (Jim) Druckemiller and son Richard Schopp Jr. (Mary Ann), plus twenty-seven grandchildren and seven great grandchildren. He was preceded in death by his mother and father (Anastasia and Howard), his sister (Audrey), brothers (Edward and Howard) and his loving grandson (Christopher Collins).

"Director of Data Processing"

- Like so many early HIS pioneers, Dick got his start in IT working on mainframe systems back in the halcyon 1960s.

- Dick's resume of these early days of IBM 5081 keypunch cards starts his story well:

- **<u>Magee Women's Hospital</u>**
  - *Director of Data Processing*
  - Responsible for installation and management of first computer system for University of Pittsburgh Medical Center.
  - Including: redesign and reengineering Patient Accounting, Billing, Cashier, Admitting, Registration and Credit and Collection depts.
  - Designed, developed and implemented an automated laboratory information system.
  - Managed 38 employees in the following areas: DP, Admitting, Registration, Cashier, Billing, Accounts Receivables, and Collections.

Amazing Sales Successes

- Early in the 70s, Dick left Magee-Women's to enter the commercial world, joining the fledgling HSD division of McAuto, selling Walt Huff's pioneering "HFC" in the lion's den!

- Being based in Pittsburgh, he was given the mid-Atlantic territory, home of my alma mater SMS, with easily the greatest sales team in HIS!
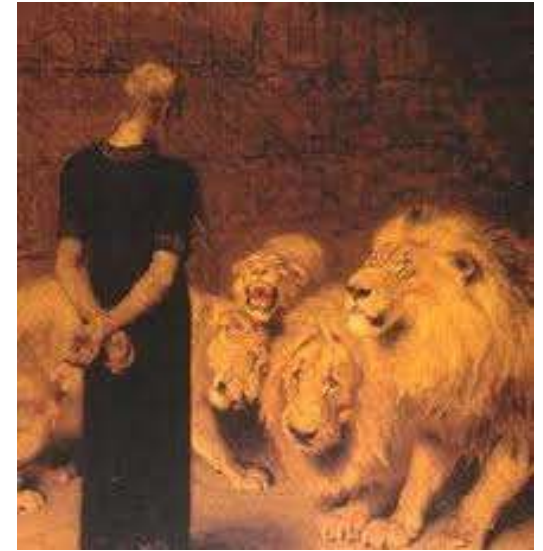
- Here's a great story about Dick's sales prowess from <u>Jim Pesce</u>, who also joined McAuto then and today heads up McKesson's Paragon division:

  - "I guess many of us new Dick for at least 40 years. My most vivid memory of Dick was way back when he sold Frankford Hospital right in SMS' back yard in Philadelphia back in the mid 1970's..."

The Client Comes First!

- Jim continues the Frankford story:

  – "When I showed at Frankford up as their implementation consultant manager for the initial planning session with the CFO, Bud Pepe, Mr. Pepe was adamant that he wanted to install McAuto's 3rd party logs *first* because of his pressing Medicare audits.

  – I was confused because at the time McAuto had no "3rd Part Logs". When I asked him what 3rd party logs he was talking about, he said "*the ones that Dick Schopp sold; they were the main reason I selected McAuto.*"

  – When I called Dick and told him we didn't have any 3rd party logs, Dick replied calmly**, 'Then we better get some real fast!"**

- This may sound like harsh selling, but when I showed up at Alice Hyde Hospital in Malone NY in 1971 as the ID for SMS, they wanted to start with EKGs, which SMS (Siemens) doesn't offer to this day!

Other Friends From McAuto

- Dick's Sales Manager at the time was another HIS-tory hero, <u>Jim Navin</u>, pioneering recruiter and co-founder of ***the*** Meditech consulting firm Navin-Hafty, tells this story of his early times with Dick:

  - "Your sad news reminds me of the 1970s when Dick reported to me at McAuto HSD. He was a good salesman, a good manager and a good friend. My favorite memory of Dick is of touring Mexico City with Pat and my wife Nancy before HSD's first one hundred percent club. Four people enjoying life and Mexico City…"

- Another McAuto veteran, <u>Melinda Costin</u>, today a VP at Baylor, recalls Dick with equal fondness:

- "He was great guy…. He taught me my greatest lesson in one sentence and I never forgot it (though did not always practice it!): '**You are so right that you are wrong**'."

Fascinating Factoid

- Dick and I became friends at McAuto during my stint there in the early 80s, and one of my fondest memories of him was how we both ended up fighting a losing battle for a HIS-tory heroine.

- Seems McAuto had a policy of paying recruiters based on which one mailed in the resume of a candidate first. No matter how much time you spent coaching & cajoling that person to take a job, whoever time-stamped a resume first got the commission.

  - As Marketing Services Manager, I got to interview candidates and give them a tour of HSD, and tried to sell the good ones on joining McAuto. Dick sent a fine candidate in who had been recruited by a new recruiter (ex-SIDA) by the name of <u>Betsy Hersher</u>!

- Despite all her hard work at recruiting this candidate, seems some other agency had sent in the her resume a day earlier, and got the commission. Dick and I fought in vain to get the McAuto bureaucrats to give Betsy a break, and the three of us became fast friends…

On To Brooklyn!

- When I left McAuto for HIS, Inc. in Brooklyn, I used <u>Betsy</u> to recruit the very best salesmen I knew from my days at SMS and McAuto. Here they are below, one of the greatest sales teams in HIS-tory:

<u>Roland Thibault</u>
An SMS & McAuto vet & ex-CFO, for the Mid-Atlantic

<u>Dick Schopp</u>
A McAuto veteran & sales superstar, for the Midwest

<u>Mike Crabtree</u>
Ex-Mac sales support maven

<u>Larry Evans</u>
Ex-McAuto sales support guru, also designed HIS' clinical apps.

<u>Jud Foreman</u>
An IBM & SMS superstar, for the Western region

<u>Brain Fitzpatrick</u>
One of SMS's best reps ever, for the Rocky Mtn states

Some jerk from Philly who got off the wrong subway stop in Brooklyn…

<u>Bert Hochstein</u>
HIS Inc's own NY native, for the Northeast region

<u>Don Trammell</u>
Ex-SMS and McAuto sales superstar, for his native South.

Starting His Own Firm

- HIS' super sales team sold 10 of the nation's largest hospitals on a system that didn't even exist yet! (don't mock we old folks, think of Paragon in 1997, Soarian in 1999, Release 6.0/Focus in 2005...)

- Dick led the chase by selling *two* mainframe sites in the Midwest:
  - Catherine McAuley Hospital and the University of Indiana Medical Center

- Programming the system turned out be harder than selling it (duh), and when HIS Inc. eventually filed for bankruptcy, Dick left...

William T. Corum III

- After selling so much stuff for others, he decided to go consulting to help his mainframe friends.

- He named his new firm Healthcare Computing Strategies (HCS) and it was tremendously successful, providing programming to over 300 hospitals with over 100 employees, including many McAuto veteran like Bill Corum, Ops VP.

Good Times

- My best memories of Dick are socializing with other HIS veterans:

- With Jud Foreman (also from SMS/McAuto/HIS Inc.) and our wives.

- Dick in the hat playing fierce defense against Larry Mancini (McAuto), Bob Pagnotta (MDS & Tymshare) & Brain Fitzpatrick (SMS & HIS Inc.)

- Hamming it up with Bill Bogutski (SMS) and Brian Fitzpatrick (SMS & HIS Inc.)

- With our lovely wives on a mountain overlook near Santa Fe, NM.

The HIS Pro

- HCS did very well for many years until Y2K which drove most mainframe shops to cease their self-developing and buy a vendor turnkey system in the late 90s. Dick tried to shift HCS' resources to HIPAA in the early 2000s, but cash flow dried up and HCS folded.

- He then joined our consulting firm and did fabulous work at battling the very sales tactics he excelled at! He spent his remaining years with us as the embodiment of our name: HIS ***Professionals***.

- Here are some more quotes from HIS industry veterans who worked with Dick during his many years with our firm:
    - "Dick was a great guy and always a pleasure to work with."
        - Troy Rosser, Senior Vice President of Sales, **CPSI**
    - "Very sad. He was a such wonderful guy – we'll miss him."
        - Brain Fitzpatrick, worked with Dick at HIS Pros, and **HIS Inc.**

Requiescat in pace

- – "I was saddened to hear that one of your friends and coworker (Dick Schopp) has passed away. God Bless him and his family!"
  - • <u>Paul Kingston</u>, Western Regional VP, **Meditech**
- – "Dick was one of the good ones who stood for integrity and always had the best interest of the customer first and foremost. He led a great life... I will definitely miss him."
  - • <u>Phil Boarman</u>, Enterprise Sales Executive, **McKesson**
- Dick is survived by his loving wife of 55 years, Pat, whom I'm sure would love to hear directly from any of Dick's many friends at:
  - – *pschopp@comcast.net*
- Or you can send her a card at:

  Pat Schopp

  24W514 Cerny Circle

  Warrenville, IL 60555

H.I.S.-tory

by Vince Ciotti

Episode #67:

Keane Part 5:
PHS' PatCom

"As a 21-hospital chain, our needs for a hospital accounting system were many. It must run at all our hospitals and meet their individual needs. And it must provide extensive centralized processing capabilities. PHS met or exceeded all our requirements."
—Paul Cahill,
Director of Information Systems
Paracelsus Healthcare Corporation,
Pasadena, California.

"PHS's Hospital Financial System is without a doubt one of our most powerful tools in helping us provide top-flight, cost-effective, health care to the community."
—Mr. Worth D. Roberts,
Chief Information Officer
Medical University of South Carolina
Medical Center, Charleston,
South Carolina

"Our environment is unique. We are not an acute care hospital, we are a high volume facility with many transactions. Our ability to define our own system to get the information we need when we need it is crucial to our success."
—Bruce Reardon, Vice President of
Information Services
Women and Infants Hospital of Rhode
Island, Providence, Rhode Island

"PHS provides the type of flexible accounting processing technology that helps our hospital grow because it grows along with us and is easily changed as our needs change. And that reduces operating costs significantly."
—Stephen Jones,
Senior Vice President of Operations
Robert Wood Johnson University
Hospital, New Brunswick, New Jersey

WHY CHOOSE THE NEW PHS HOSPITAL FINANCIAL SYSTEM?

That Depends On Whom You Ask

Different hospitals, different needs. One system does it all ... the Hospital Financial System from PHS.

It's the integrated hospital information system for all hospitals, from under 50 beds to over 2,000. From large teaching hospitals and regional chains to small specialized facilities throughout the country.

HFS makes your information processing more productive by reducing paper shuffling. Each application uses data as current as the last transaction entered so there's no waiting for updates. And we can support both centralized and decentralized processing with our open system architecture and intelligent LAN-based technology.

As an authorized Data General Distributor, PHS systems are backed by the extensive resources of an acknowledged leader in healthcare hardware. To date over 170 hospitals count on HFS for their hospital administration and record keeping.

Now that you've heard from the experts, isn't it time you called?

For more information call 213-578-7000.

PHS
PROFESSIONAL HEALTHCARE SYSTEMS
PHS—a new company with years of experience behind it
12960 Coral Tree Place, Los Angeles, CA 90066

DataGeneral
Price/performance is a key factor customers consider when purchasing a computer.
That's why Professional Healthcare Services chose Data General Corporation as our hardware vendor.

Circle Reader Service No. 13

Keane's *Acquired* Products

- This week we continue the story of **Keane**, looking at the next HIS vendors besides Ferranti & INFOSTAT they acquired, while building their own "Threshold" UNIX-based product. This week we cover an amazingly long-lived revenue cycle system they acquired from:

  - **Professional Healthcare Services** – the IT division of hospital chain American Medical International (AMI), who built PatCom.

    - *Many thanks several old friends from SMS & AMI for the inside details!*

- The *6th* & final episode on Keane (don't blame me, blame Ray Paris who bought all these vendors!) will cover:

  - **First Coast** – Charlie Gibb's firm from Florida, whose "APaCS" HIS offered a full financial/clinical suite on IBM AS/400s.

    - *No word on where Charlie is, nor any other FC veterans - please write!*

  - **Source Data Systems -** (SDS), from Cedar Rapids, Iowa, based on NCR's "Mednet" HIS, that ran at over 150 hospitals in the 90s…

    - *Another vanished HIS vendor –anyone know the inside details?*

The AMI/PHS/PatCom Story

- Credit for the inside story of PatCom goes to 2 old friends from the glory days of SMS in the 1970s:

- **Arnie Caplan**, a New "Yohkah" transplanted to LA where he started as an ID for SMS (the 39th!) then became ID Manager before joining PHS in 1981:
  - Arnie's still working today at a Kaiser hospital in Pasadena: *Arnold.N.Caplan@kp.org*
  - Here he is at SMS' 40th reunion in KOP in 2009:

- **Art Harris**, who joined SMS from the Central Bank Computer Bureau (aka "CB2") one of 4 shared systems in the 1970s that were merged into the Information Services Division (ISD), the IT arm of American Hospital Supply, later bought by SMS.
  - Art's still working on PatCom for Keane and can be reached at: 310.417.3120

Central Will Sell Hospital Data System

Central Banking Systems Inc. of Oakland today announced the signing of a letter of intent to sell its subsidiary, Central Bank Computer Bureau, to American Hospital Supply Corp. of Evanston, Ill.

The agreement calls for American Hospital Supply to buy the outstanding stock of Central Computer Bureau for $1,250,000 and to make an additional payment in 1975 based on the 1974 revenue generated by Central Computer Bureau.

AMI's *Looooong* roots

- AMI was the first investor-owned hospital company in the world, being founded in *1956* by (are you ready?) <u>Uranus J. Appel</u>. No, that's *not* a typo and I'm not trying to plug Cupertino! Here's his portrait:

- Uranus was a bacteriologist who formed "**MedLabs**" first as a reference laboratory for LA-area hospitals.

- In the 60s, a small hospital client was closing its doors, **MedLabs** bought it, and then changed both its name (and mission) to **AMI**.

- AMI began gobbling up hospitals around the US, as well as many overseas (AM*I*!)

- Around 1976, **AMI** formed **Professional Healthcare Services (PHS)** to develop a modern **DG** mini-based HIS for its US hospitals, and in 1978, began selling these systems to non-**AMI** hospitals as well.

PHS' Board & Executive Team

- PHS was formed by several HIS veterans, pictured on right, the most prominent:

  – <u>Ritchy Haynes</u> – President, who, like Art Harris, started his HIS career at one of ISD's 4 shared systems, Ritchy's being the Michigan BC/BS shared system, also home to several other HIS-tory heroes from past episodes:

The PHS Board (back, l-r): Bama Rucker, Gen. Prtnr., Hambrecht & Quist; Joseph McCue, VP Fin. & Tres., Mass. Gen.; John Johnston, Gen. Prtnr., TVI; Dennis M. Peck, Ex. VP, PHS; and Arnold N. Caplan, Sr. VP, PHS. (Front, l-r) Gilbert E. Dwyer, Pres., Gilbert Dwyer & Co.; Ritchy Haynes, Chair, Pres. & CEO, PHS; and Andre Dimitriadis, Ex. VP, CFO, AMI.

  - <u>Gerry Mathis</u> – who became president of Sentry Data, featured in Episode 21 (see our web site: *hispros.com* for a re-visit!), and later a VP at Sheldon I. Dorenfest & Associates (SIDA).

  - <u>Frank Cavanaugh</u> – who went initially to SMS like Ritchy & Gerry, then left to join Coopers & Lybrand where he became national director of their *enormous* HIS consulting arm in the 80s & 90s.

- Amazing that a small shared BC/BS system could spawn all three!

Platform & Early Adopters

- PHS picked the **Data General** line of "MV" minicomputers for its hardware platform.

- One of their early (and large!) clients was **Alexian Brothers**, a hospital chain in the Midwest, whose "computer room" (no "data centers" back then) is pictured on the right:

The computer room of Alexian Brothers.

o create strategic
prehensive service

Bruce Fisher, Vice President — Finance, Alexian Brothers.

- Pictured at left is <u>Bruce Fisher</u>, CFO at Alexian Brothers, who was joined by several other notable healthcare organizations in picking PHS to replace shared/mainframe systems, including:

  - **Massachusetts General Hospital**

  - **Baylor Health Care System**

  - **Johns Hopkins Health**

- *Whew*, that's an impressive client list!

Hot 1987 Ad

- Like so many mini-based HIS vendors, PHS started with primarily financial apps (patient & general accounting), than gradually added "Clinical" systems, which in those days, was a euphemism for nurse Order Entry & Results Reporting.

- Note how this ad brags about PPS – DRGs were a big deal back in the 1980s!

INSIGHT AND INTEGRATION.

HOW PHS INFORMATION SYSTEMS GIVE YOU A MORE COMPREHENSIVE VIEW OF HOSPITAL OPERATIONS.

CONSISTENT INFORMATION WITH A LOT LESS LABOR.

If your hospital is using two or three different systems to produce the information you need for decision-making, you've created your own information impasse. The problems begin when you try to consolidate or reconcile information from these different systems. Sometimes, without even realizing it, you wind up comparing apples and oranges.

To eliminate this information bottleneck, PHS designed a family of integrated systems that make the availability of data between users and applications automatic, real-time and consistent.

Here's how: The PHS Patient Care, Concurrent Utilization Monitoring, Medical Record, Patient Accounting and Prospective Payment Systems form a universal data base using common coding schemes, validation criteria, and data entry/retrieval procedures. Data is entered only once. It is validated on-line, and instantly becomes a part of the common data base.

REAL-TIME INFORMATION WITH FAR FEWER ERRORS.

PHS information systems bring patient care, demographic, financial, and prospective payment data together in a way that hospital managers

Big Sale in KOP's Backyard

- Arnie saves almost as much stuff as I do! He was kind enough to send these pics of a T-Shirt **PHS** had printed up for the implementation of a *huge* client they signed within a stone's throw of **SMS**' King of Prussia HQ near Philadelphia:

- – Hospital of the University of Pennsylvania (HUP), where, incidentally, a leader of HUP's of the IT gurus was another former **SMS**-er: Tony Mirigliani! Anyone know where he is these days? One of SMS/HIS' all time best!!

- – Maybe **PHS** really stands for "**P**reviously **H**ired by **S**MS" as Arnie also remembers another **SMS**' super-star, Ron Dixon (VP of Sales for the West), who joined PHS about this time too.

Ownership Complexity

- You HIS trivia nuts will love these details:
  - "AMI owned all of the stock in PHS through its wholly owned subsidiary, AMI Information Systems Group, Inc. (AMI Systems). AMI formed Professional Healthcare Systems Holding Corporation (PHS Holding), a Delaware corporation, so that PHS Holding could acquire PHS Services from AMI Systems. To accomplish that acquisition, PHS Services was first acquired by a wholly owned subsidiary of PHS Holding, PHS Acquisition Corporation. The name of PHS Services was then changed to Professional Healthcare Systems, Inc. (PHS), and PHS Acquisition was merged into PHS. PHS is a Delaware corporation with its principal place of business in Los Angeles County."

- Arnie illustrates thru these old plaques he photographed (check out his reflection!):

Multiple New Owners…

- As part of these late 80's restructuring deals, PHS was owned in part by its management & employees (48.3%), several VC investors (26.3%) and a number of its major clients (12.7%), viz:
  - Stanford University Hospital
  - Massachusetts General Hospital
  - Alexian Brothers Health System
  - United Hospitals Inc. (PA)
  - Women & Infants Hospital (RI)
- Venture Capital firms included:
  - Hambrecht & Quist
  - The Hillman company
  - Crimson Capital Corporation
- Got that? Good, because it's all gonna change…

Ever Keen to Acquire…

- In 1993, **Keane's** set its acquisition sights further West than <u>Ferranti</u> in Maryland or <u>SDS</u> in Iowa, when they acquired PHS' superb PatCom HIS and these many prestigious clients.

  - At that time, PHS was doing ≈$20 million in annual revenue…

- **Keane** next converted PatCom to UNIX, gaining independence from the DG MV platform, then renamed it "**EZ Access**" per its far more "open" UFOS data base architecture.

- Today, PatCom is the revenue cycle core of **Keane's** "**Optimum**" product, along with their "**iMed**" clinicals.

Your journey toward meaningful use starts now.

An electronic health record (EHR) solution, the Keane Optimum™ suite of fully integrated certified clinical applications helps hospitals and healthcare facilities reduce medical errors, increase efficiency, and improve the delivery of care.

Find out how Keane Optimum can help you receive full reimbursement under ARRA by visiting www.keane.com/hsd.

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Keane

Next Week: Keane's Final Buys

- Amazing this one vendor bought so many systems it's taken 5 episodes to get this far, but next week the saga ends with their 2 final acquisitions:

  - **Source Data Systems** - NCR-based HIS out of Cedar Rapids Iowa

  - **First Coast** - AS/400-based system out of Jacksonville, Florida

- Anybody got any info on these two old stalwarts they'd like to share, please call (505/466-4958) or write (vciotti@hispros.com)

H.I.S.-tory

by Vince Ciotti

Episode #68,
Keane Part 6:

First Coast
& SDS

First Coast Systems

COMMITMENT
SERVICE
FUNCTIONALITY
COST EFFECTIVENESS

THAT'S MY PROMISE
TO YOU!

Charles Gibbs, CEO

Connectivity, cost effectiveness, ROI, AS/400, SAA, user friendly, . . relational data base, real time, integrated . . . .

What's so important about these buzz words?

To some vendors, that's all they are, but to us and our 100,000 users it's a way of life.

Call today and ask to speak with one of our "buzz" word experts.

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Circle Reader Service No. 7

Last of Keane's *Acquired* Products

- This week we end (finally!) the story of **Keane**, looking at the last two vendors/systems they acquired while building "Threshold:"

  - **First Coast** – Charlie Gibb's firm from Florida, whose "APaCS" HIS offered a full financial/clinical suite on **IBM** AS/400 minis.

  - **Source Data Systems -** (SDS), from Cedar Rapids, Iowa, based on **NCR's** "Mednet" HIS, that ran at over 170 hospitals in the 90s…

- The story of **First Coast Systems (FCS)** starts with its founder, Charlie Gibbs, whose career started way back in 1964 (whew, I was only a freshman in college back then!) when Charlie was a hospital systems engineer at (where else?) **IBM.**

- In 1973, Charlie and his wife Donna started their own firm in Jacksonville called **Gibbs Computer Systems**.

Pilot Hospital Partnership

- Following a script played out so often in the HIS industry, Charlie & Donna partnered with a nearby FLA hospital to build their "APaCS" HIS:

  – **Baptist Medical Center**

- Heard that before in HIS-tory? Try:

INNOVATION ADOPTION LIFECYCLE

- **Lockheed's** MIS at El Camino in CA

- **IBM's** "HIS" at Monmouth in NJ

- **McAuto's** HFC at OSF in Illinois

- **Medipac** at Evanston, Illinois

- **JS Data** at South County in RI

- **Meditech** at Cape Cod Hospital

- **Sentry** at Norwegian American

- **CSC's** Tandem HIS at Long Beach…

What's an "APaCS?"

- Glad you asked! It's an "*Advanced* **Pa**tient **C**are **S**ystem," which is so much better than one of those many tired *old* PCS-es on the market...

- And for hardware, the Gibbs made the wise choice of **IBM** minis, starting with the **3X** series in the late 70s & early 80s (like so many other HIS vendors: JS Data, DCC, AR/Mediquest, etc.), then running on the hot new **AS/400** series mini when it was announced in 1988.

- In 1985, Charlie & Donna renamed their firm **First Coast Systems (FCS)**, and grew APaCS from a basic financial suite into a true patient care system, adding Orders & Results, Care Plans & Nurses Notes; even ancillaries like: RIS, OR, RX, etc.

QUALITY SOFTWARE IS ONLY HALF THE ANSWER . . .

. . . Having it Successfully Installed and Working to Your Satisfaction is the other Half.

It takes PROFESSIONALS to plan, train and guide the installation process. FIRST COAST SYSTEMS with over 15 years of health care experience provides those professionals.

It takes FLEXIBLE programs that can easily be modified to meet your UNIQUE requirements. "PACKAGED SOFTWARE" cannot "be all things to all people," but superior design standards can provide

for economical modifications either through FIRST COAST SYSTEMS or your own data processing staff.

APaCS the Advanced Patient Care System provides the superior design needed in today's health care environment.

First Coast Systems, an IBM Business Partner offers a full line of hospital software products for the AS/400.™

APaCS THE ADVANCED PATIENT CARE SYSTEM

Admit, Discharge, Transfer, Census	Order Communications/Results Reporting	General ledger
Patient Billing	Nursing Management (Care Plans, Notes & Acuity)	Accounts Payable
Electronic Claims	Pharmacy Management	Payroll/Human Resources
Accounts Receivable	Radiology Management	Timekeeping
Bad Debt/Collections	Surgery Management	Materials Management
	Medical Records/Case Mix/DRG Grouper	

For Additional Information on how your hospital can experience the advantages offered by First Coast Systems APaCS, call us at 1-800-826-9102 or 904-737-3611 in Florida.

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Jacksonville, Florida 32207
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In Florida (904) 737-3611

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FCS' Management Team

- Charlie took a page out of **PHS**' story by following the "**P**reviously **H**ired by **S**MS" formula when he hired a K. of P. hero:

  – <u>Bob Blades</u> – I remember Bob well from my SMS days as the ID Manager for the Delaware Valley office. Bob became FCS' National Marketing Director around 1989, joining:

  – <u>Phil Galusha</u> – who had started in 1977 and became Director of Product Development, later promoted to VP.

(From Left to Right): Phil Galusha, Charlie Gibbs and Bob Blades.

- Charlie and Donna rounded out the management team:

  - Charlie as Chief Executive Officer, and Donna as the President.

• Know of any other husband & wife teams in the HIS vendor ranks?

- I sure don't – can anybody out there think of any? Write us!

Sales Successes & Rapid Growth

- Being privately held, FCS's revenue figures were not public info, but the firm grew rapidly to where by the late 90s, it was approaching $20M in annual revenue with about 100 FTEs.

- Some other trivia from a 25-year-old RFP response back then:
  - About 100 hospital clients, most with financial systems. But many growing into **APaCS** evolving suite of clinicals too..
  - 8 sales claimed in 1998, 5 new hospital sales in 1997…
  - No regional offices – all service/support out of the FLA HQ
    - (Shades of **Meditech**, **CPSI**, & **Epic**…)
  - Help Keys customized via FCS' Knowledge Base Navigator
  - EDI included E2000 claims manager & Pathways Mat. Man.
  - The **IBM** AS/400 9406 Model 720 offered up to 4MB main memory, while disk storage ran from 128 to 263 Gigabytes, and support 50 current out of 240 users (CRTs & printers).

David Catches the Eye of Goliath...

- If Mr. HIS-talk had his blog in 1999, the hot story on Nov 22nd was:

  - *"Keane Inc. today completed its purchase of Jacksonville's First Coast Systems*

  - *FCS, which provides software for hospitals, is being merged into Keane's health care division, and its Jacksonville office will become a Keane branch.*

  - *First Coast's core product, Advanced Patient Care Delivery System (Apacs), gives medical providers access to patient records at the point of care.*

  - *FCS had $20 million in revenue last year, according to information submitted to The (Jacksonville) Business Journal for a Dec. 3 list of software developers. Keane, a publicly traded company, reported revenue of $1 billion in 1998.*

  - *"Both Keane and First Coast Systems offer high-quality products and services to the health care market, but use different technology to deliver those products, effectively creating two different market solutions," said Raymond W. Paris, vice president of Keane's health care division. "As a result, this is an extremely complementary acquisition, strengthening Keane's position."*

  - *The First Coast purchase was the seventh for Keane in 1999."*

- Charlie & Donna probably made out pretty darn well, considering back then most acquisitions were about equal to annual revenue!

Eventual Dénouement…

- **FCS** clients did pretty well at first, especially with Y2K looming on the Horizon (HBO pun intended!). Keane sold & supported APaCS well into the mid-2000s, under the name of "**Insights**" and upgraded to run on **IBM's** latest boxes: the i-Series then P-Series.

- At the 2009 HIMSS, Keane announced "Optimum" a combo of the award-winning **PHS** "PatCom" system featured in last week's episode, and their self-developed "iMed" clinical suite.

- No mention of **FCS** or **Insights** since…

Source Data Systems (SDS)

- **SDS** was founded in 1978 by Bob Barnett Jr. CEO, and Gary Ford, President, in Cedar Rapids, IA.

- The system ran on **NCR** minis with **NCR's** UNIX-based "MedNet" HIS developed at pilot Mercy Hospital, along with an "InfiNet" repository.

- They eagerly embraced interfacing to standalones in Lab, RX, etc., rather than trying to develop every HIS app.

- Client base grew to ≈170 mostly small hospitals, with ≈125 FTEs and annual revenue to about $11M by the time they were acquired by Keane in 1995.

- Sunset in 1997, just before Y2K…

Source Data Systems: Helping Clients Help Themselves

by Daphne Woods

For more than 10 years, Source Data Systems, Inc. (SDS), has been quietly providing system solutions and services to the healthcare community. Their 150-plus supported clients benefit from a unique combination of vendor experience and client-determined product evolution. With a management team with an average of nearly 20 years of experience in healthcare data processing, SDS has progressed through a belief that flexible software, running on inexpensive mini processors, is the best solution for the healthcare industry.

"Clients always know their requirements better than vendors," said Healthcare Director Dennis Van Auken. "Our clients actively participate in prioritizing and planning new products. Their user association is called IMPACT and that's exactly what they have on our product's future direction."

Bob Barnett, chief executive officer and company founder, said, "Our goal has always been to provide our clients with a system flexible enough to react to unique needs as they occur, at an affordable price. To attain our goal, we developed a software environment called Systems Definition Language (SDL) which is hardware independent, inexpensive and usable by the clients themselves." Available as a complete set of systems software tools and productivity aids, SDL merges operating system, language, utilities and output generator with distributed data processing capabilities. "The bottom line," said Barnett, "is lower support, hardware and development costs for our users. SDL allows us to port our entire systems and application product line to any new hardware technology within 90 to 120 days, with no client inconvenience. Our clients receive maximum product adaptability at minimum cost and can prolong the usable life of their hospital's software investment."

"The healthcare market," said SDS President Gary Ford, "is demanding economical system solutions that not only last longer than five years, but can adapt to expanding needs. Clients should not be required to buy all new software whenever new hardware technology is introduced. Several of our earliest hospital clients are now implementing their fourth generation of NCR mini-computers with no resulting application code conversions and no reinvestments in operating systems.

"Because hospital service departments rightfully prefer to select from among several department-specific automated systems," Ford continued, "we now offer assistance to integrate these systems with our NCR/MEDNET modular network. Even when we offer a certain application, we defend the client's right to select outside systems (e.g., pharmacy, lab or cost accounting). The number of ancillary system choices and resultant interface requirements expansion let SDS evolve into the integration solutions business as well.

"We never intended to become a large corporation," Ford said. "Responsiveness and creativity tend to diminish as a company grows. So, since our base applications were developed in SDL, we began a search for a partner to take our products to market nationwide. The NCR Corporation is that partner. Our agreement calls for NCR to market and install the NCR/MEDNET products which we develop and support. Both companies, the large, secure manufacturer and the smaller, responsive developer have found the relationship works well. We have grown from just three clients in 1982 to more than 150 today."

In addition to the NCR/MEDNET products, SDS also molds solutions to satisfy other healthcare needs. SourceNet is an intelligent data switch that enables users to employ one CRT to access information kept on multiple, unlike computers. Facility-wide office automation can also be accessed from that same terminal now that SDS' OfficeNet product is available.

"Our direction is to continue to create, integrate and implement solutions to solve market needs," Barnett added. "Creating leading edge solutions for customers has provided us both satisfaction and corporate growth. Though many hospitals are not yet familiar with us by name, more and more are using Source Data Systems' products and services. We thank our clients for helping us to help them."

> "The market is demanding economical system solutions that can adapt to expanding needs."

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U.S. HEALTHCARE
JUNE

Mean & Nasty?

- Sound mean of Keane to sunset SDS just a few years before Y2K? Well, they weren't alone:
  - **SMS** sunset "**Allegra**" (nee Computer Synergy) in the late 90s when the cost of upgrading it Invision, Novius *and* Medseries 4 was too much
  - I'm sure there were many more products other vendors sunset back in those panic days too!

- So before you shake your head about these poor HIS pioneers who got hurt, just what is your hospitals doing about ICD-10 and Stage 2 of MU?
  - Does your agreement with your HIS vendor hold them accountable for complying with these imminent upgrades? Within the time frames mandated?? And at no cost to you???
  - Maybe it's time to check *your* contract…

Next Week: *Not* Keane!

- Next week we resume our march through *today*' HIS vendors: where they got their systems and how many still run today, with:
  - **QuadraMed** – formed from a host of acquisitions, most notably being Shelly Dorenfest & Ron Apprahamian's **Compucare**.
  - **UltiCare** – the heart of our story, developed by Ralph Korpman's **Health Data Sciences** corporation from San Bernadino, CA.
- Anybody got any info on Ron or Ralph (I'm in touch with Shelly…), please call (505/466-4958) or write (vciotti@hispros.com)

H.I.S.-tory

by Vince Ciotti

Episode #69, QuadraMed Part 1:

Compucare

4th of *Today's* Leading Vendors

- This week we begin the 4th episode on *today's* HIS vendors: **QuadraMed**, whose story encompasses **Compucare** and **HDS.**

  QuadraMed. Quality Care. Financial Health.

  - $3.2B = <u>McKesson</u>, née HBOC = Walt Huff, Bruce Barrington, & David Owens
  - $2.2B = <u>Cerner</u>, *still* run by Neal Patterson, co-founded with Cliff Illig
  - $1.7B (est) = <u>Siemens</u>, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde
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  - $110M = **HMS** (Healthcare Management Systems), Tom Givens & John Doss
  - $70M (est) = <u>Healthland</u>, formerly Dairyland, founded by Steve Klick

Triple Play!

- This series of 3 episodes actually covers 3 HIS vendors (Techie Troika?) that we'll review in chronological order:

  – **Compucare** – home of <u>Shelly Dorenfest</u>, which we first covered in an earlier episode (#17, which you can find at *hispros.com*), only this time we get the perspective of the man who took it (and other HIS firms!) on to bigger & better things: <u>Ron Aprahamian</u>

  Sheldon Dorenfest

  – **QuadraMed** – formed by the acquisition of over a *dozen* HIS firms over several decades of acquisitions, then bought itself a few years back, and the surviving name & vendor in *hundreds* of hospitals to this day.

  – **Health Data Sciences** – Formed by <u>Ralph Korpman</u>, yes, that same Dr. Korpman who was a Pathologist at Technicon back in the days of MIS, and created **UltiCare**, the pioneering bedside system.

Another HIS-tory Hero!

- Many thanks for this weeks inside story of the rise of **Compucare** to **David Pomerance**, co-founder of Dynamic Control, who was kind enough to introduce me to **Ron Aprahamian**, for the inside story. Ron's story begins way back in the 1969 mainframe era:
  - Ron joined **Compucare** after it had grown to about 20 FTEs in the 1970s, but he recalls it was first founded by **Peter Marsh** and **Richard Freibrun**, then joined by Shelly from Abbot Lab.
  - Shelly and Peter hardly need introductions, both having long HIS-tories, but Dick Freibrun has a fascinating background:
    - He was one of the 47 *charter* members of HIMSS in 1961!
    - He developed a plastic overlay for clinicians entering data onto IBM's "clunky" old 1052 keyboards (which if you've been a good student of HIS-tory, you'll remember was Mike Mulhall's claim to fame at the **IBM** Monmouth Medical Center in NJ "HIS" project in the late 60s {see episode #8}).

Rocky Start...

- Like so many start-ups, **Compucare** was challenged to grow the business through sales (income), while at the same time programming and installing their HIS (expenses), and by 1975 the ratio of the 2 was not very good, with only about $500K in revenue and 30-40 FTEs.

  - Ron was the FM (Facilities Management) Director for Compucare at **Georgetown U. Hospital**, which you may remember was the idea behind **Compucare**: develop an HIS through a series of FM clients writing various apps. At that time, most of their clients were mainframe users.

- With the impending minicomputer revolution, Ron got the idea to switch boxes and paid about $50K to buy out **Compucare's** stock. That would be between a ¼ and 1/3 of a million in today's dollars, a pretty gutsy gamble for 29-year old Ron way back then!

Boston Connection!

- How Ron switched from mainframes to a minicomputer platform is an incredible story that even blew *my* mind after being in this crazy business for 40+ years:
  - Rather than start from scratch, Ron turned to a little start up in Boston that had developed a rudimentary LIS on DG minis: **Med**ical **I**nformation **Tech**nology – ever heard of them? Try the acronym in green they used for their overly lengthy name…
  - Yes, Virginia, **Compucare's** first HIS apps were coded in MIIS, **Meditech's** proprietary version of **MUMPS**, long before it was eventually renamed as **Magic**!
- Ron's programmers built a full set of financial apps, patient and general accounting (ERP for moderns), to add to **Meditech's** suite of ancillary systems, ADT and OE/RR. As you might imagine, Ron's Georgetown Hospital became the pilot, and they started to sell!

Rapid Growth & IPO

- Like so many turnkey mini vendors back then, **Compucare's** DG-based HIS sold well, and the firm went public in 1983, for a total stock value of ≈$40M

  – Not bad for a $50K investment by a 29-year old!

- As the stock grew in value, it caught the attention of another very successful healthcare company that was looking to buy its has into the HIS market: **Baxter-Travenol**, who by then had already acquired a number of mini and mainframe HIS vendors:

  - John Sacco's "**JS Data**" (featured in HIStory episodes #26 & 27)

  - Mitch Lasky & Dave Pomerance's **Dynamic Control Corp.** (#18)

  - Frank Russo's **IBM** mainframe system from Long Island Jewish

    - As you might imagine, Ron & the other stockholders got a pretty good price from the supply giant: the total value of the transaction being somewhere around **$70M!!!**

But Wait, There's More!

- I'm sure some of you CIOs are ready to leave your hospital job and start a vendor, but believe it or not, Ron's amazing financial prowess was only just beginning!

- **Travenol** renamed **Compucare's** HIS the "Sigma" series and tried to sell it alongside DCC's **IBM** System 38-based HIS, which sold much better...

- After several years of this internecine warfare, and after **Baxter** joined **IBM** to create **IBAX**, they gave up!

Meeting Your Critical Goals In Today's Competitive Healthcare Environment

Today's complex healthcare facility requires more than fancy footwork to meet its strategic financial goals. Coordination and teamwork, within departments and throughout your institution, are more critical than ever to winning on the bottom line.

No other turnkey system provides greater functionality and flexibility in a more cost-effective manner than the Travenol Healthcare System/Sigma Series. It's the minicomputer-based hospital information system that can integrate a comprehensive range of administrative, financial and clinical functions into one smooth team effort.

This fully integrated software product delivers on-line responsiveness on any Data General MV-series mini. Doing the work often assigned to a mainframe — just as efficiently, but more economically.

The Sigma Series also includes Travenol's Healthcare Information Center software, a central reservoir for patient, human resource and general ledger information. This easy-to-use decision-support tool gives you access to the ad hoc information you need to make critical, time-sensitive decisions — and gives you the flexibility to report the information in a format of your design.

The Sigma Series product is supported by Travenol's nationwide

service organization. Ongoing product updates ensure that the Sigma Series solution will continue to meet or exceed your expectations.
Staying Ahead of the Game

Travenol Healthcare System/Sigma Series is a product of the Travenol Healthcare Information Services team. Together, **Compucare, Dynamic Control, Integrated Healthcare Technologies, JS/Data, Laboratory Systems Division** and **Pharmacy Systems Division** have installed more in-house, integrated information systems in hospitals of all sizes than anyone else in the business. We are part of a $5 billion company whose commitment to healthcare is total.

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Guess Who, and For How Much?

- So guess who IBAX sold the Sigma series back to? ***Our man Ron!*** And for how much? So little, would you believe *$7M!* If you're an old friend, email Ron at *raprahamia@aol.com* to confirm…

- When Ron got his old firm back, he started it in a new direction, that should sound familiar after you read the last few Keane episodes on Ray Paris' **Threshold** and John Indrgio's **Infostat**:

  - An "open" system platform written in UNIX so it could run an *any* mini:

    - **IBM**, **Hewlett-Packard**, **DG**, etc.

  - Under these "open" covers, the programming language was still **MIIS**, but UNIX opened many more doors for this latest HIS: **Affinity**

SOME ATTRACTIONS ARE NATURAL

AFFINITY

"Code Generator"
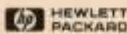
- Rom relayed a fascinating tech detail about a "code generator" they wrote to write the actual programming code

- He gives credit to a techie named Jim Kline, the development Director who created it (sounds like the "translator" HIS Inc. tried to develop in Brooklyn that was described in episode 30!).

- When Affinity first went live circa 1990, response times were slow, and they had to re-do a lot of the code to speed things up. "Re-writing by hand would have taken forever," per Jim Kline, and his code generator saved the day!

THE DIFFERENCE BETWEEN ORDINARY
AND EXTRAORDINARY IS FLEXIBILITY

A winning HIS requires grace under pressure. And Affinity performs. Its flexibility lets hospitals respond to their ever-changing environments. By the ability to add to the Affinity database. Modify screens. And create reports. Standards and open architecture increase your options. For connectivity. A choice of hardware platforms. And the 100% system availability required by your 24-hour day. ● In its first year alone, Affinity was selected to meet the performance demands of hospitals from 100 to 1500 beds. Find out how it will meet yours. Call The Compucare Company at 703 709 2421.

A F F I N I T Y

DataGeneral   HEWLETT PACKARD

Ron's *Final* Sale of Compucare

- By the late-90s, **Compucare** had sold over 100 Affinity systems, and the company was fast approaching the $100M mark in annual revenue.

- Ron left in 1996, by which time **Compucare** had become quite a hot commodity, *again*! This time the buyer was the star of our next HIS-tory episode: **QuadraMed**, who acquired many firms & runs Affinity in scores of hospitals to this very day.

  – Tune in next week for their story…

- And what happened to Ron after he left **Compucare**? True to form, he started looking for "green" pastures…

Retirement? *This* Guy??

- After he left **Compucare**, Ron was Chairman of the Board of **CHIME** until 1999, and came a little close to retirement, serving as a consultant to **Sunrise Senior Living, Inc.** for a few years.

- However, you can't keep a good HIS man down, and in 2000, Ron became Chairman of the Board of **Superior Consulting Corp.**, during which time he organized a turnaround of this struggling firm. In 2003, Superior was acquired by Affiliated Computer Services (ACS), who were themselves later acquired by Xerox.

- After Superior, Rom took his expertise to another struggling consulting firm: **First Consulting Corp.**, turning its shares around from $5 to $13, before they were eventually acquired by CSC.

- What's he doing today? Besides golf 5 days a week, he is a director at a healthcare firm named **Hooper Holmes, Inc**., along with <u>Larry Ferguson</u>, another HIS pioneer from **SAI** (Saint).
  - You just can't keep these HIS-tory heroes down!

Most Proud Accomplishment

- Ron gives credit for the success of Compucare was given to al the hard-working employees who did the day-to-day heavy lifting.
- But his most proud achievement is pictured below:
  - Two sons and one daughter, all married, and with 8 grand kids!

Next Week: QuadraMed

- Next week we continue the saga of **Affinity** with its new owner **QuadraMed**, who along the way acquired over a *dozen* other HIS firms, each its own fascinating HIS-tory in themselves. Their latest acquisition a few years ago will lead us to **UltiCare**...

H.I.S.-tory

by Vince Ciotti

Episode #70:

QuadraMed

Part 2

As filed with the Securities and Exchange Commission on January 21, 2004

Registration No. 333-####

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

QUADRAMED CORPORATION
(Exact Name of Registrant as Specified in its Charter)

Delaware	7371	52-1992861
(State or Other Jurisdiction of Incorporation or Organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

12110 Sunset Hills Road
Reston, Virginia 20190
(703) 709-2300
(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Lawrence P. English
Chief Executive Officer
12110 Sunset Hills Road
Reston, Virginia 20190
(703) 709-2300
(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copy to:
Morris F. DeFeo, Jr.
Miles & Stockbridge, P.C.
1751 Pinnacle Drive, Suite 500
McLean, Virginia 22102

Approximate Date of Commencement of Proposed Sale to the Public: As soon as practicable on or after the effective date of this Registration Statement.

4th of *Today's* Leading Vendors

- This week we continue the HIS-tory of *today's leading* HIS vendors: **QuadraMed**, who acquired both **Compucare** and **HDS.**

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Acquisition-itis

- The HIS-tory of QuadraMed, before they gained fame in the HIS industry by acquiring Compucare, is an amazing tale of mergers & acquisitions, more than any other vendor except HBO/McKesson!

- Incorporated in 1993, check out this amazing list of 28 QM deals:

COMPANY	DEAL	DATE
Coast Micro, Inc.	Asset Purchase	October 1993
Seton Financial	Merger	December 1993
Health Tech, Inc.	Asset Purchase	June 1994
Healthcare Design Systems	Asset Purchase	December 1995
InterMed Healthcare Systems, Inc.	Merger	December 1996
Healthcare Recovery. dba Synergy	Merger	March 1997
Queen City Microsystems, Inc.	Merger	July 1997
Healthcare Revenue Management, Inc.	Merger	September 1997
Medicus Systems Corporation	Merger	November 1997
Fleming Softlink Systems, Inc.	Merger	December 1997
Resource Health Partners, L.P.	Merger	December 1997
Rothenberg Health Systems, Inc.	Merger	December 1997
Healthcare Research Affiliates, Inc.	Merger	December 1997
IPN, Inc.	Merger	December 1997

Acquisitions, cont'd

- Recognize any of these? The only one I recognize is Compucare!

COMPANY	DEAL	DATE
Healthcare Cash Management Seminars, Inc.	Asset Purchase	January 1998
American Medical Network, Inc.	Asset Purchase	January 1998
Cabot Marsh Corporation	Merger	Feb, 1998
Velox Systems Corporation	Merger	March 1998
Vision Software, Inc.	Merger	May 1998
Pyramid Health Group, Inc.	Merger	June 1998
MetriCor, Inc.	Merger	June 1998
American Hospital Directory, Inc.	Asset Purchase	July 1998
CodeMaster Corporation	Merger	August 1998
Integrated Medical Networks, Inc.	Merger	Sept, 1998
Premier Healthcare Corporation	Merger	Dec, 1998
The Compucare Company	**Merger**	**March 1999**
Health Systems Integration, Inc. & Pro Intermed, Inc.	Merger	March 1999
Millennium Consulting Services, LLC	Asset Purchase	May 1999
Healthcare Financial Informatics	Merger	June 1999
LinkSoft Technologies, Inc.	Merger	June 1999
Med Data Systems, Inc.	Asset Purchase	July 1999

More HIS-tory Heroes!

- For the inside story of how Compucare fared once **QuadraMed** acquired it, I must thank on old friend (he's much *younger* than me; I've just known him for a long time): <u>Frank Pecaitis</u>.

- His resume before/after **Compucare** is another mini-HIS-tory:

  – Frank cut his HIS teeth working for <u>Tony Mirigliani</u>, one of the all-time greats at SMS in the '70s, at HUP in Philadelphia.

  - Remember Arnie Caplan's great T-shirt from the PHS conversion there:

  - Anybody who can tell me how to get in touch with Tony gets a steak dinner!

- Frank went to PHS (which was later acquired by Keane) after they installed "PatCom" at HUP and learned the ropes of sales there.

- In 1992, he became a rep at Compucare, selling Affinity so well they made him West Region VP of sales in '98.

The Next Big Thing

- Frank sold QuadraMed's Affinity amazingly well throughout the 90s, as shown by the annual revenue growth chart shown below:

Compucare/QuadraMed Annual Revenue
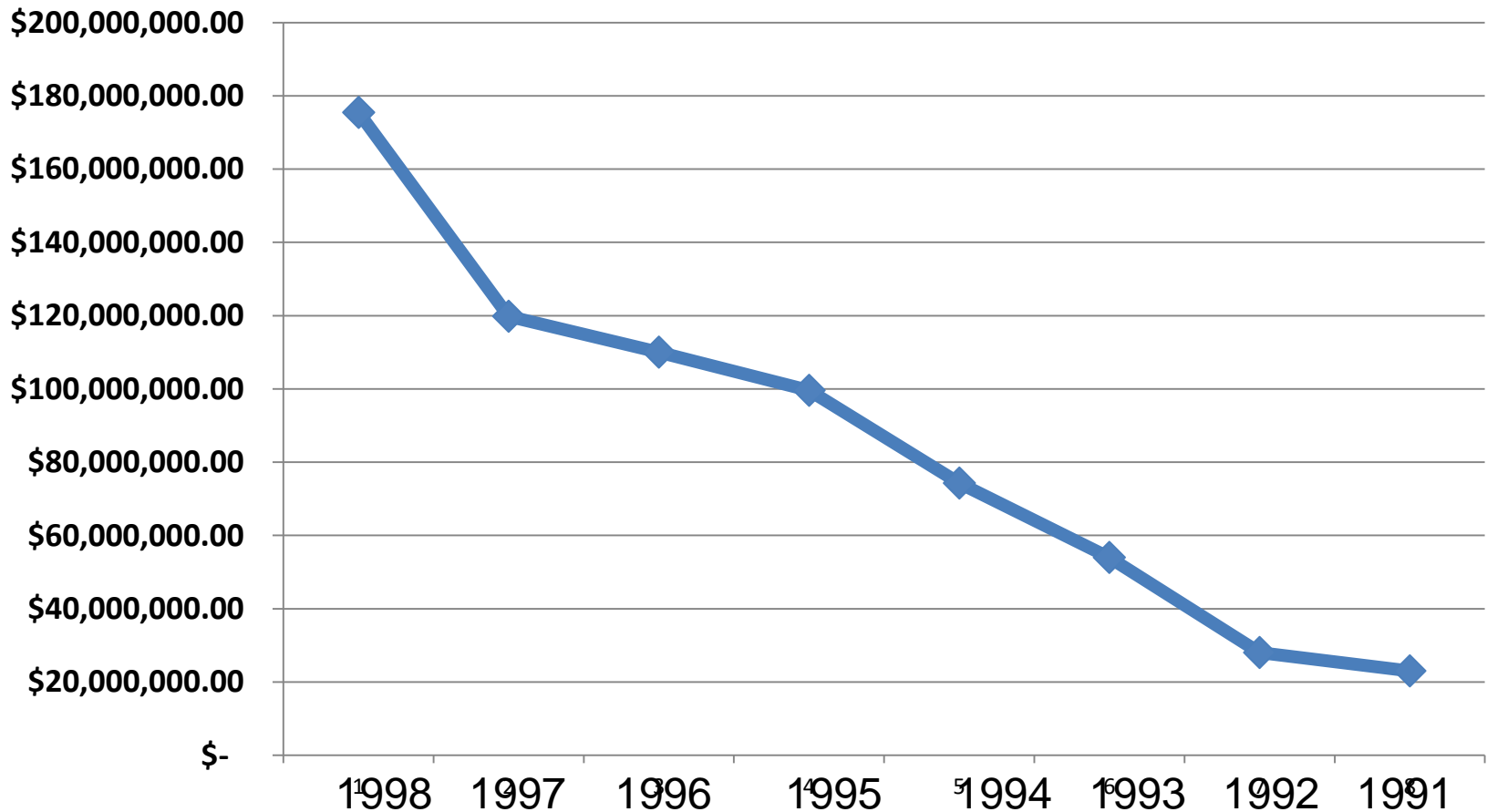
Sales Superstar…

- In 1999, after **QuadraMed** acquired **Compucare**, Frank became VP of Sales & Marketing for their "Enterprise Division" product line (Affinity). Affinity was growing in market share and #1 in KLAS at the time (wasn't *every* vendor at some point in time?).

- In truth, Affinity sold amazingly well, including sales to such big name facilities as <u>LA County </u>(LACO) and <u>Orlando Regional Health System</u> in FLA. Eventually, almost 200 hospitals bought Affinity…

- After so many successful years at **QuadraMed**, Frank left to become VP of Sales at **MedSphere**, a pioneering "Open" system vendor, selling the VA's "OpenVista" EMR to community hospitals.

- He is currently VP of Sales for **GE Healthcare's** Centricity series, and can be reached at *Frank.Pecaitis@GE.com*

Turnover at the Top

- Unlike Meditech and Epic, where *one* CEO has rules the firm since its inception, **Compucare**/**QuadraMed** had a series of leaders:

    - After Ron Aprahamian turned the operating reigns over to Ransom Parker in the early '90s (Randy is back with Ron at Hooper-Holmes today!).

    - Their successor after the acquisition was Jim Durham, who guided QuadraMed through the myriad of mergers & acquisitions of the 90s.

    - Jim turned things over the Nancy Nelson, then:

    - Keith Hagan who had been the chief tech guru

        at Compucare, and came back to lead it in 2006...

- The next CEO steered QuadraMed through some incredibly difficult times that rocked the entire US economy, and involved the death of biggest and most prestigious of the "Big Eight" CPAs.

Next Week: QuadraMed's "Near Death" Experience

- How in the world did <u>Ken Lay's</u> self-destruction nearly kill **QuadraMed**?

- And *who* guided the firm through those troubled waters, turning it around almost as miraculously as Ron Aprahamian's buy/sells of **Compucare**?

- Stay tuned for Frank's tale next week…
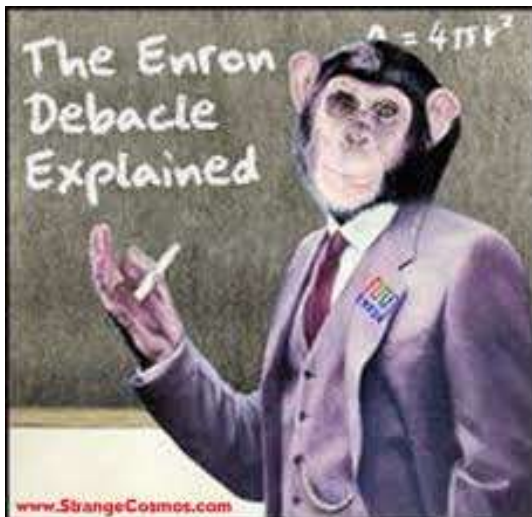
H.I.S.-tory

by Vince Ciotti

Episode #71:

QuadraMed

Part 3
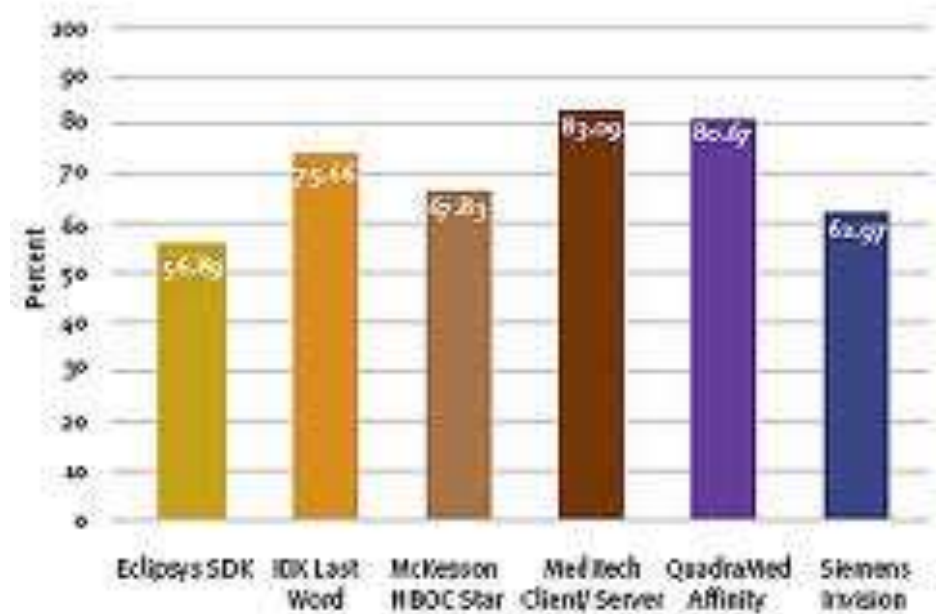
An "Affinity" for Sales!

- We left off last week with how well Frank Pecaitis and his team sold Compucare/QuadraMed's Affinity HIS throughout the 90s, as shown by the annual revenue growth chart shown below:

- I hope this chart corrects the gaff of last week's that had the slope *reversed*!

- But what a perfect segue to the next story

Compucare/Quadramed Annual revenue

Year	Revenue
1/1/1992	~$22,000,000
1/1/1993	~$28,000,000
1/1/1994	~$53,000,000
1/1/1995	~$75,000,000
1/1/1996	~$100,000,000
1/1/1997	~$108,000,000
1/1/1998	~$120,000,000
1/1/1999	~$175,000,000
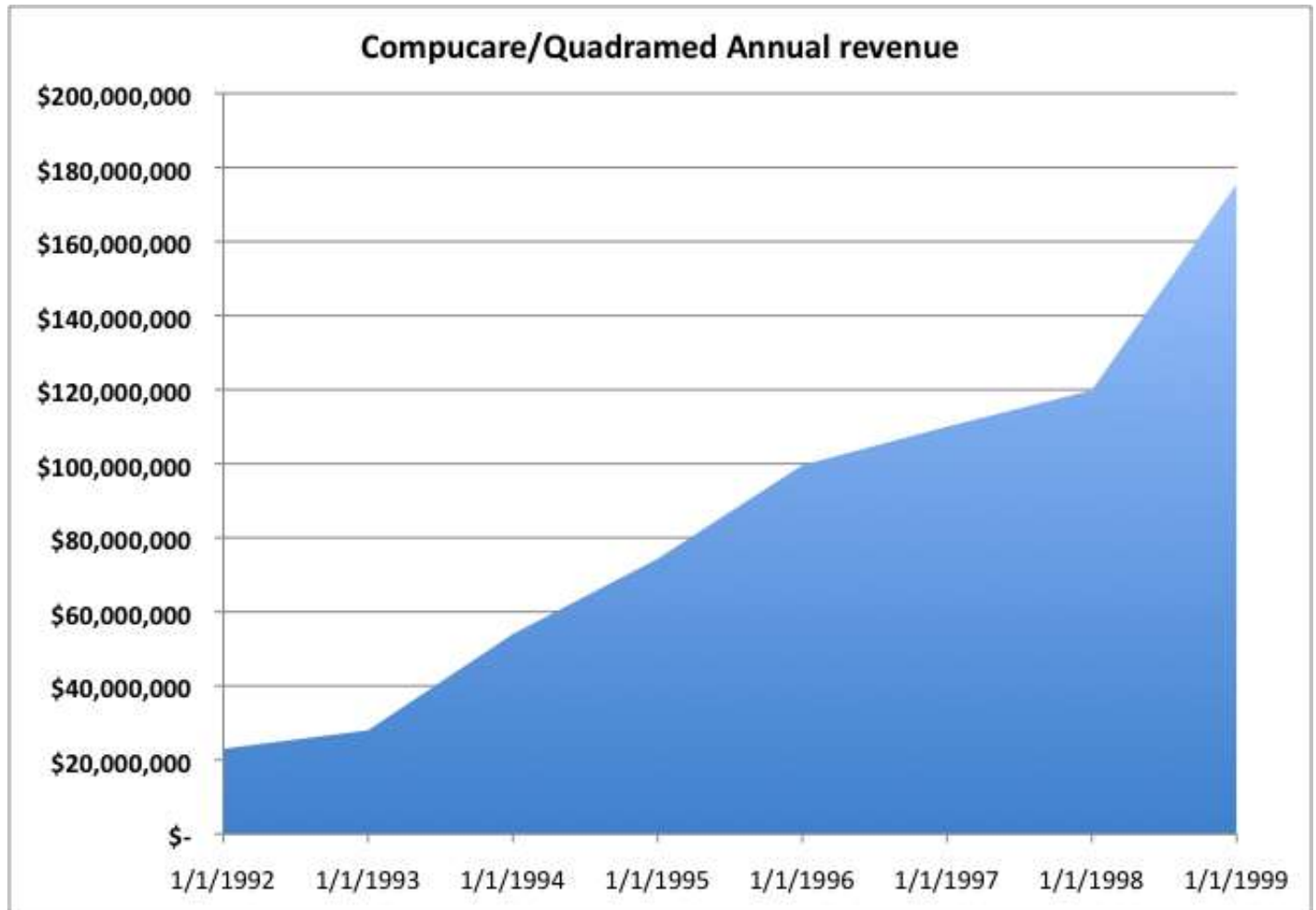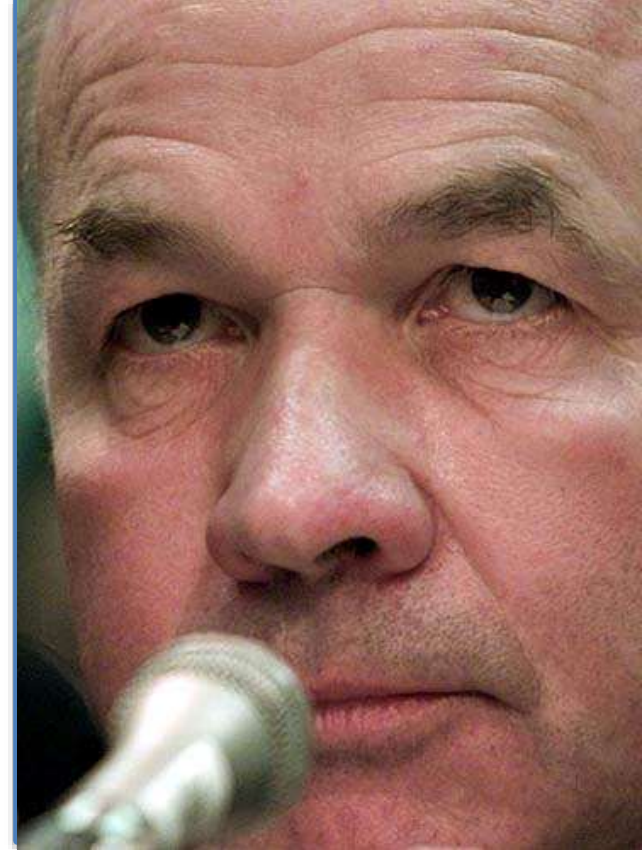
Ken Lay & QuadraMed

- So how in the world did the Enron debacle have a negative impact on an HIS vendor?

- Ironically, while Ken Lay, Jeffrey Skilling, Andy Fastow & Co. were cooking the books throughout the 80s and 90s, they used the same accounting firm as QuadraMed: Arthur Andersen, one of the very biggest of the "Big Eight" accounting firms back then.
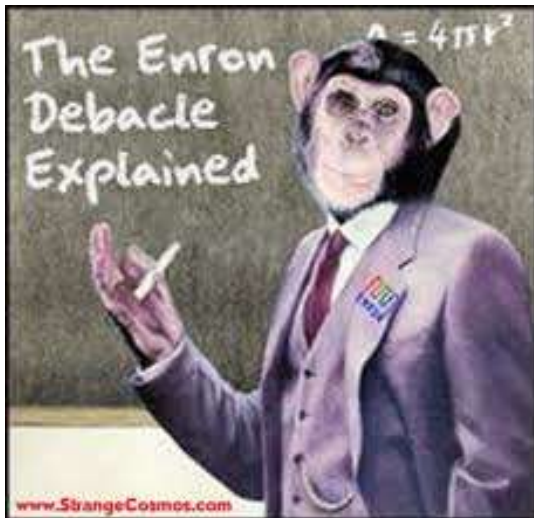
- When Arthur imploded after the 2001 scandal went public, their audit clients were suddenly left without an "audited" set of financial reports, something NASDAQ insists on for its publically held firms.

- Without an auditor, QuadraMed missed the deadline for filing and was de-listed...

So?????
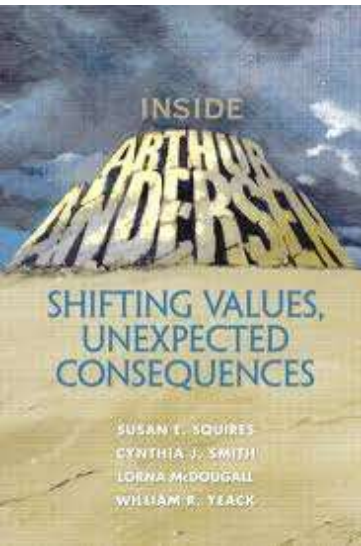
- What's that got to do with the price of eggs? Well, if you were down to your final vendor selection and your CFO asked about the financial status of your finalist vendor(s), **QuadraMed** had nothing to show you until they could find another audit firm. And their stock's value had plummeted to pennies…

- Does that matter when selecting a vendor? Ask:
  - **Allscripts** – just a few months ago when their stock tanked after missing earnings projections…
  - **McKesson** – whose stock value dropped $9B circa 1999 after their over-priced acquisition of HBOC
  - **IBM** – whose stock crashed in the early 90s…

- So **QuadraMed** sales took a nasty hit in the early 2000s, despite having a winning product, good implementations, great service, and happy clients.

Just How Good Were They?

- Our consulting firm had **QuadraMed** in the finals at a number of system selections in the early 2000s, and here's how they fared in terms of demos, telephone reference calls, user documentation, etc., compared to several of their leading competitors back then:

- These 2002 scores are the results of users filling out detailed checklists that rate vendor demos, phone calls and documentation.

- Of course, no one is perfect, as these scores show, but Affinity did very well back then!

Semi-Final Vendor Scores

	Vendor A	Vendor B	QuadraMed	Perfect
CONTRACT	667	743	551	1,000
DOCUMENTATION:	710	630	820	1,000
PHONE REFERENCES:	1,480	1,530	1,730	2,000
SYSTEM DEMOS:	430	365	405	1,000

Legend:
- CONTRACT
- DOCUMENTATION:
- PHONE REFERENCES:
- SYSTEM DEMOS:
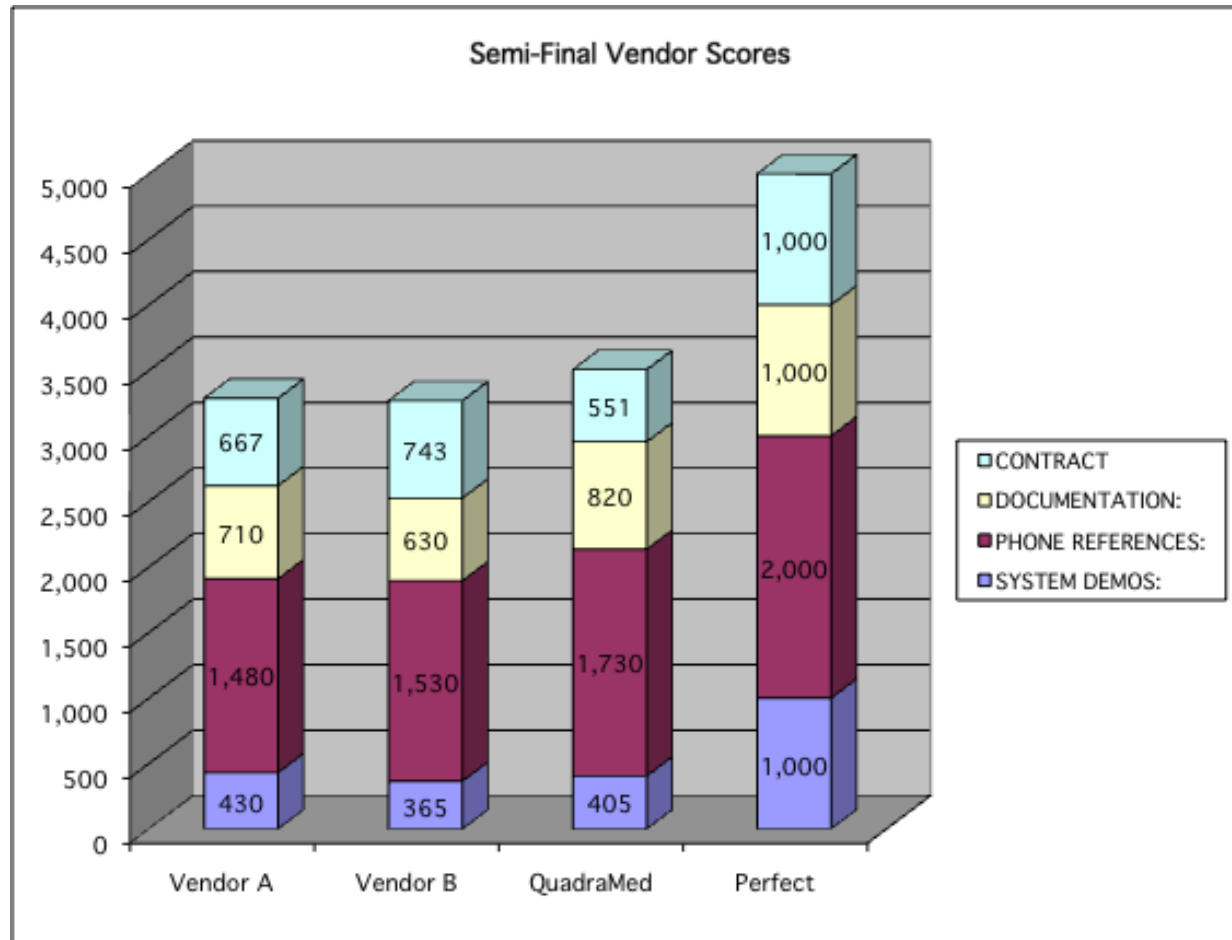
Road to Recovery…

- The man who led QuadraMed out of these woods in the early 2000s was <u>Larry English</u>, who was recruited from the insurance giant Cigna, which was formed from the merger of Connecticut General and INA.

- Larry faced a tough row to hoe, as the 27 acquisitions we listed for QuadraMed last week made its books a nightmare *without* Enron! It took Deloitte-Touche and BDO several years to get the $s right…

- One of the firm's strong suits became the niche of Medical Records (HIM today), thanks to 2 encoders they acquired:

    - <u>CodeMaster</u>, and the

    - <u>Encoder</u> from Medicus.

- Both were combined in Oracle-based "Quantim."

HIM Mavens

- The chart below shows QuadraMed's client base back in the early 2000s; the "PC" figures are primarily for their Quantim encoder, which roughly splits the HIM market with rival 3M's "CodeFinder"
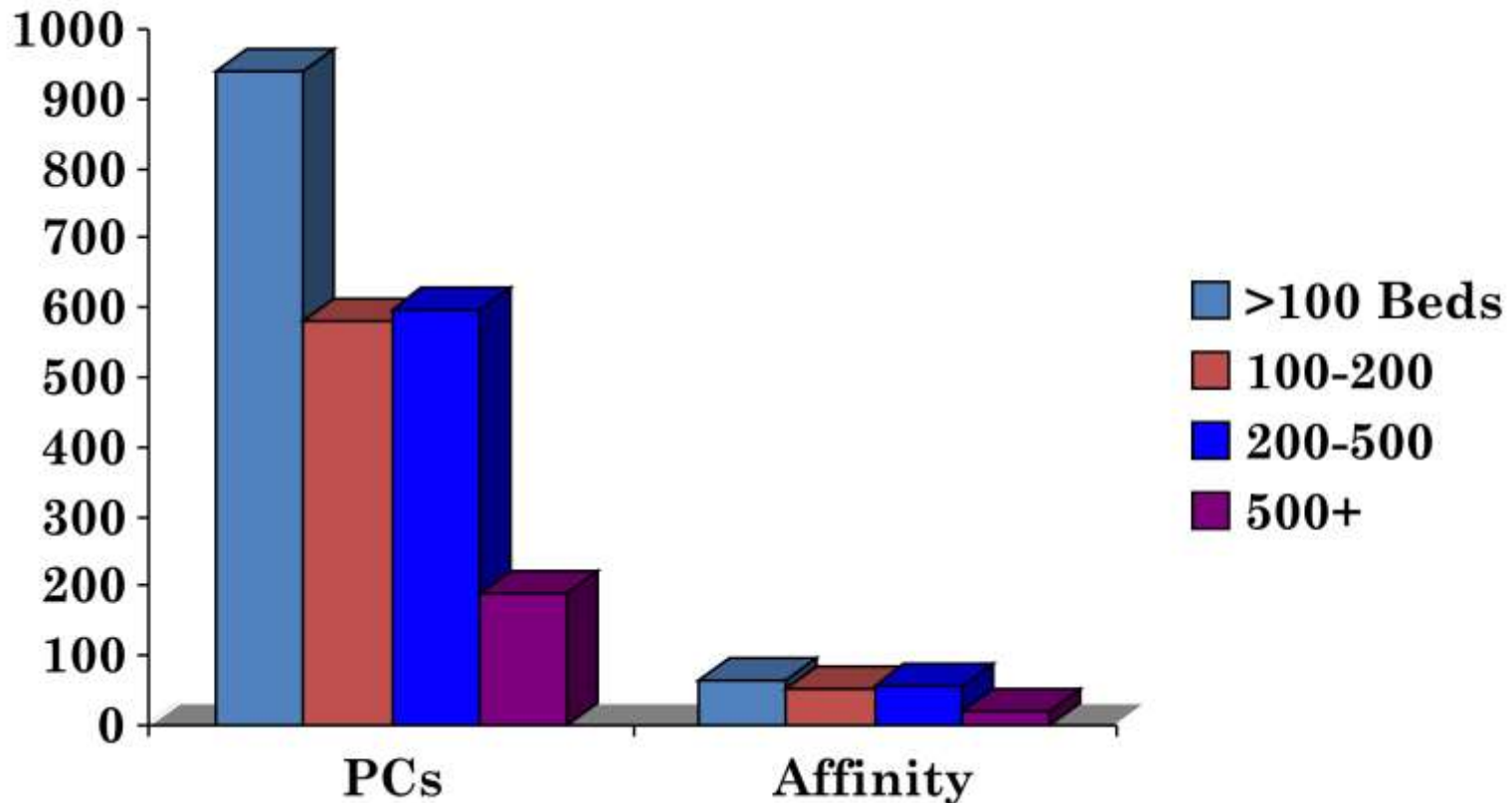
Re-Listed!

- It took a several years of hard work by Larry, Frank and the whole QuadraMed team, but they eventually got the firm back on Wall Street, this time on the American Stock Exchange. Larry's triumphant announcement is captured in this photo on the right in August of 2004:

- The shot on the left is also courtesy of Frank Pecaitis, who gave their execs names:

(Standing from left to right) =

- Dean Souleles, Chief Technology Officer,
- Bill Henderson, VP HIM (Quantim),
- Suzanne Jenkins, VP Product,
- Frank, Sr. VP of Sales, and on far right:
- Mike Wilstead, President and COO.

From Rags to Riches To Rags To Riches…

- **Compucare/QuadraMed's** roller-coaster ride continued when Larry English retired at age 65 in 2005. He was replaced by:

- Keith Hagen, a 25-year industry veteran who had worked at:

  - **Misys**, **Sunquest** and some small start-up named **Compucare**…

- Keith returned to QuadraMed to find that Affinity was just not quite achieving the high level of an EMR & CPOE clients wanted.

- He faced the classic dilemma in IT circles: "build it" or "buy it?"

- Turning to his former colleagues at Misys, he found the answer in a system that is its own mini-HIS-tory, that we'll take up next week, as we cover the third leg of the Compucare story: **HDS**

H.I.S.-tory

by Vince Ciotti

Episode #72:
QuadraMed
Part 4:
HDS

ANCILLARIES

BEDSIDE

PHYSICIAN

MEDICAL RECORDS

ULTICARE MODULAR

REG/ADT
ORDER ENTRY
RESULTS REPORTING
NURSING

Introducing
ULTICARE
MODULAR

Now You Can Build A
Totally Integrated H.I.S.
One Module At A Time.

The realities of keeping a hospital on budget
often mean postponing the major purchases
you need most.

That's why we at HDS® now offer
ULTICARE® MODULAR™. It's the solution for
those who want to build a truly integrated
health care information system, while work-
ing within existing budgets.

By installing ULTICARE MODULAR
now, you can purchase additional functions
whenever you're ready. ULTICARE
MODULAR is a cost effective way to acquire
the one totally integrated H.I.S. on the
market. A system that will dramatically
improve the quality of patient care, while
reducing operating costs.

Integration is vital to the success of any
hospital. Find out how easily ULTICARE
MODULAR can fit within your plans for a
prosperous future. Contact Joe Ribotto, Sales
and Marketing Director at (714) 888-DATA.

HDS
The Power of Integration™
Health Data Sciences Corporation®
268 W. Hospitality Lane, San Bernardino, CA 92408

Authorized ◆ DataGeneral System Distributor

ULTICARE® and ULTICARE® MODULAR™ use the powerful Data General MV
Eclipse family of 32-bit computers in a multi-processor architecture. The
breadth and compatibility of these products allow HDS to match the hardware
complement to the needs of any hospital.

Circle Reader Service No. 5

First: One More QM CEO!

- Before we get to **HDS**, the source of QuadraMed's EMR today, we first have the story of one other CEO at Compucare, thanks to **Dave Wellons**, a past contributor to these HIS-tories, who explains his own background in the IT and HIS industries, and then introduces the missing CEO:
  - "As usual a great set of slides. It is really interesting to go back and read about the history that was made from the 1980s until now. I started in HIS in 1984 and have non-healthcare computer experience going back to 1971.
  - One QuadraMed person I didn't see mentioned was **Jim Peebles**. Jim was a founder of **Sunquest** back in the day, and then teaming with Chris Heller, founded **MIDAS** who sold the MIDS system to hospitals to do Quality Assurance (as it was called back then)."

Landacorp & MIDAS Connection

- "I know this well because Jim and I competed when I was VP of Sales & Marketing at **Landacorp**, the first QM/UM system in the market.

- The **Landacorp** system was built by <u>Bryan Lang</u> based on <u>Joyce Craddick's</u> "Medical Management Analytics", a consulting method to help hospitals do their QA/UM work.

- During my time at **Landacorp**, we met several times with **QuadraMed** when they were located in San Rafael, CA and their CEO was <u>Jim Durham</u>, the founder, with talks towards working together, which never materialized.

- **MIDAS** was written in MUMPS.

- Then <u>Jim Peebles</u> 'retired' from **MIDAS** and next showed up as a board member of **QuadraMed** and for a period of time was the acting CEO until the replacement could be found."

Another HIS-tory Hero

- This final episode on the roots of today's **QuadraMed** products covers the story of one of the early pioneers of EMRs before that term was even invented: **Dr. Ralph Korpman**

- His story is truly amazing, if (like Will Rogers) you "only know what you read in the newspapers," check this column about his early days at Technicon:

Journal Staff Writer

Remember Big Brother? Although it's not yet 1984, he's alive and functioning at Sarasota Memorial Hospital.

Well, almost.

Little more than a year ago, the hospital contracted the computer services of T and T Technologies for its laboratory. A completely new system was installed — one that had never been used anywhere before, with a telephone connector to California and the genius who invented it.

Now it is considered the most advanced computerized lab system in the country, and Dr. Ralph Korpman, a computer genius who started medical school at age 15 and graduated as a pathologist at age 27, has become the hospital's Big Brother.

With the use of a "little black box" called a modem hooked into the hospital's telephone line, Korpman can transfer programs into the local system from a master system in California.

"IT'S KIND OF like Big Brother, but not so bad," said Dick Crist, administrative laboratory director at Memorial. Korpman is connected to the local Technicon LDM 8200 system because

Amazing what you can find on the web…

Per the **CLINICAL CHEMISTRY JOURNAL, Vol. 40, No. 6, 1994:**

- "Dr. Korpman is a Professor at Loma Linda University School of Medicine. He received his Bachelor's and M.D. degrees there, where he also completed residencies in Anatomic Pathology and Laboratory Medicine and a fellowship in Clinical Hematology. He also attended the Claremont Graduate School where he received a Certificate in Executive Management.

- In 1976, Dr. Korpman founded **Medical Data Corporation (MDC)** which developed turnkey systems used in hospitals. **MDC** was acquired by **HBOC** in 1981, where he served as Chief Scientist.

- He founded **Health Data Sciences** in 1983, an organization dedicated to the provision of fully integrated, point-of-care based, patient-centered information systems that provide operations optimization, fault tolerant performance, and multi-institutional networking; these systems optimize health care productivity and quality through the use of electronic medical records."

Check the plate!

- This ad from 1990 sums it up: an EMR that will travel a long & winding road, up to 2012!

- **Ulticare** had it *all* back then, not only a very robust suite of clinical apps, including nursing documentation and CPOE, but it also was one of the leaders in "the new thing" back then:

- **Bedside Terminals** – the mid 80s saw the introduction of PCs and terminals in patient rooms (check out HIS-tory episode #42 for all the details on our web site: hispros.com)

Runaway Costs
Professional Shortages
Market Share Decline
Reimbursement Policies

The H.I.S. Built To Handle Whatever Lies Ahead.

How can you handle the road ahead when you're not sure where it's going?

The right information system is a good start. And ULTICARE® is the one H.I.S. that can help you manage all the twists and turns, without losing control.

It's built from the ground up for flawless integration. A single patient database enables authorized providers to document and review patient data with unsurpassed efficiency. And with all ancillaries on-line, there are no roadblocks between departments and users to slow things down.

The best thing about ULTICARE, though, is how it makes you more responsive to change. Like minimizing the impact of professional labor shortages by improving productivity and efficiency throughout your hospital.

And by creating an environment that helps physicians optimize the care of their patients, ULTICARE puts you in a position to expand market share instead

of watching it shrink.

Plus, virtually unlimited database query capabilities give you the complete picture on costs and reimbursement, so you can analyze hospital operations more thoroughly, and make better, more informed decisions.

If you need an H.I.S. that can keep your hospital firmly on track, take a look at ULTICARE. It's the one system that can prepare you for that signpost up ahead.

For more information, call today. Ask for Joe Ribotto.

HDS

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(714) 888-DATA

No one knows the future like HDS.
INFO/CARD 27

ULTICARE uses the powerful Data General MV Eclipse family of 32-bit systems in a multi-processor architecture. The breadth and compatibility of these products allow HDS to match the hardware complement to the needs of any hospital.

△ DataGeneral
Please see us at the CIH C&E, Booth #311.

Bedside Market Leader

This table from Sheldon Dorenfest's 1988 "Guide" shows how **HDS**' **UltiCare** dominated the bedside market with *ten* sales in just one year, leading rivals MedTake, CliniCom, etc:

VENDORS CURRENTLY IN MARKETPLACE

Vendor	Product Name	Approach	Status	Number of Sales Claimed
AT&T	Inpatient Care Info. System (ICIS): Part of Carecomm	Hand Held Units Integrated with Carecomm	Beta Test	2
Clinicom	Clinicare	Hand Held Units Strategic Alliances with HIS vendors as front end	Partly Available	6
Critikon	Vitalnet	Wall/Bed mounted Standalone at each Nurse Station	Beta Test	2
Daughters of Charity Health System	Bed Com-1	PC Compatible Unit Tied to SMS	Beta Test	2
Health Data Sciences (HDS)	Ulticare	Full Function Terminal Full PCS with Bedside Orientation	Partly Available	10
IBM	-	-	System in Development	-
Micro Health Systems	Medtake	PC Based Standalone and front end	Partly Available	9

To Be Continued…

- Stay tuned for next week to read how **UltiCare** was sold to some of the most prestigious names in Healthcare,

- And eventually made some of its biggest sales by selling *itself*, as the company was sold, and sold, and sold again…

- And the product was renamed and renamed, again and again…

H.I.S.-tory

by Vince Ciotti

Episode #73:
QuadraMed
Part 5:
QCPR

Odd Connections

- This week we finally complete the story of Compucare & QuadraMed, by tracing the origins of the "**QCPR**" EMR. Amazing how convoluted the origin of these four letters can be....

- We pick up the story of **UltiCare** as it was being sold well by Dr. Ralph Korpman's Health Data Sciences (HDS).

- Back in the late 80s & early 90s, it was a leader in the red hot "bedside" market.

Bedside Hype

- It's interesting to read all of the hype spouted forth back in those days about the advantages of putting devices at the bed side – it reads like the miracle cures that EMRs are going to be today…

- Of course, no one spoke about the downsides like: CPOE alert-fatigue, lost productivity of RNs and MDs clicking their lives away, security, etc. It's all positive, efficient, integrated, immediate…

Health Data Sciences Corporation, San Bernardino, CA

Placing terminals at the point of care — the bedside — results in improvements in both efficiency and quality. Efficiency gains are achieved because providers are no longer required to record information twice or more. Also, bedside terminals allow results from monitoring devices to be viewed immediately via uni- or bi-directional interfaces. Quality is improved because duplicate data entry is eliminated, thus reducing errors. Bedside systems further improve quality when integrated to a hospital-wide patient care system. Integration is the key to reaping quality improvements. A system is truly "integrated" when it has a patient-centered database, maintains a single patient record, renders all patient information available to all authorized providers from any system terminal, allows one-time data entry and provides a migration path to a complete electronic medical record. Integrated bedside systems will have a profound, positive impact on case management approaches to rendering care. Such systems provide immediate access to the medical record, track the patient throughout the entire episode of illness, support critical path analysis across departmental boundaries and facilitate interdepartmental communications. Health Data Sciences Corporation's Ulticare systems have been implemented at Candler General Hospital, Savannah, GA, and William Beaumont Hospital, Troy, MI.
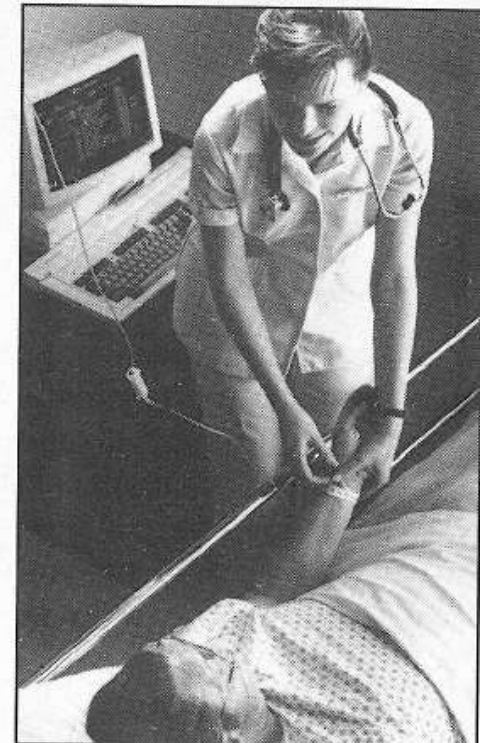
Prestigious Client List

- While **MedTake** and **CliniCom** sold to "normal" community hospitals, HDS' **UltiCare** was installed in big names:

  - <u>William Beaumont Hospital System</u> in Royal Oak, Michigan, bought UltiCare in 1985 for about $10M. Included in that cost were 7 "MV 10000" minicomputers made by DG. Beaumont was being managed by

  - <u>Humana</u> – the giant hospital chain – at the time, so the *potential* for additional sales was enormous…

  - <u>Princeton Medical Center</u> in NJ implemented HDS in 1991, with DG terminals in every patient's room.

Biggest Sale of Them All!

- As seems to be the case with so many of the vendors we've traced, **HDS**' biggest sale of all was *themselves*:

- In May, 1996, the **Medaphis** Corporation acquired **HDS** in a stock deal worth about **$255M!** HDS was privately held at the time.

    - Ralph and his team must have made out pretty darn well…

- The name **Medaphis** may not ring a bell, but they were major players in Healthcare at the time. In another familiar theme in HIS acquisitions (think McKesson after acquiring HBOC), right after the acquisition, **Medaphis** ran into some financial challenges/litigation, had to re-state HDS' revenue for several years, and to shake the cloud over it's name, **Medaphis** **then** renamed itself **Per Se Technologies .**

- Again, true to form in the HIS world, the first major change **Per Se** made to UltiCare was to change its name, calling it **"Patient 1"**

Another *HUGE* Sale…

- One thing that motivated **Per Se** to pay so much for Patient 1 was an imminent 1996 sale HDS had been working on, to one of *the* largest healthcare organizations in the country:

  – **New York City Health & Hospitals Corp.**

- This place was so big in terms of volumes, it is hard to appreciate: a *dozen* of the largest hospitals in the US, spread out over 4 boroughs of NYC (in all but Staten Island).

- I distinctly remember the stunning victory of **SMS** over **McAuto** back in the mid-70s when NYCHHC was shopping for a financial system. **SMS'** stock soared when their $s hit our bottom line…

  - HHC runs UltiCare (aka Patient 1) right up to this day; speaking of which, any day now they will announce the successor EMR. Now just guess who might win this *epic* decision at such a large multi-hospital system???

And *Two* More Times…

- After a few years of further sales successes, **Per Se** sold Patient One to **Misys Healthcare Systems** from Raleigh, NC, in July, 2003.

- And what was the first thing **Misys** did to "improve" Patient One? You guessed it they played one more round of Shirley's big hit, *re-naming* it the "Computerized Patient Record"

- The last (final?) sale of **UltiCare**/**Patient 1**/**CPR** came in September, 2007, when our main story-line vendor, QuadraMed, acquired CPR from **Misys** and (did you guess it?) changed the name a 4th time, albeit a minor change, to "**QCPR**" (QuadraMed's Computerized Patient Record).

- **QCPR** turned out to be the perfect front-end to Affinity's solid revenue cycle core applications.

QCPR/Affinity Status Today

- **QuadraMed** competed well in a number of system selections our firm led over the past few years, thanks to its large client base of:
  - <u>184 users on Affinity</u> for a core HIS: Access, Rev Cycle, etc.
  - <u>68 clients on QCPR</u>, most of which are 300 beds & larger.
- Client names included such "biggees" (literally!) as:
  - St. Francis in Tulsa OK, with 946 beds
  - St. Raphael's in New Haven, CT, with 474 beds
  - St. Barnabas, West Orange, NJ, with 597 beds
  - Bellevue Hospital in NYC with 809 beds
  - Forest General, Hattiesburg, MS with 512 beds
- So there you have it, the complete HIS-tory of:
  - **Compucare's** Affinity and **QuadraMed's** QCPR, evolved from **HDS'** UltiCare, **Medaphis/Per Se's** Patient 1 and **Misys'** **CPR**.

H.I.S.-tory

by Vince Ciotti

Episode #74:
Good News,
& Sad News

Good News, Bad News

Journalism Ethics and the Public Interest

JEREMY IGGERS
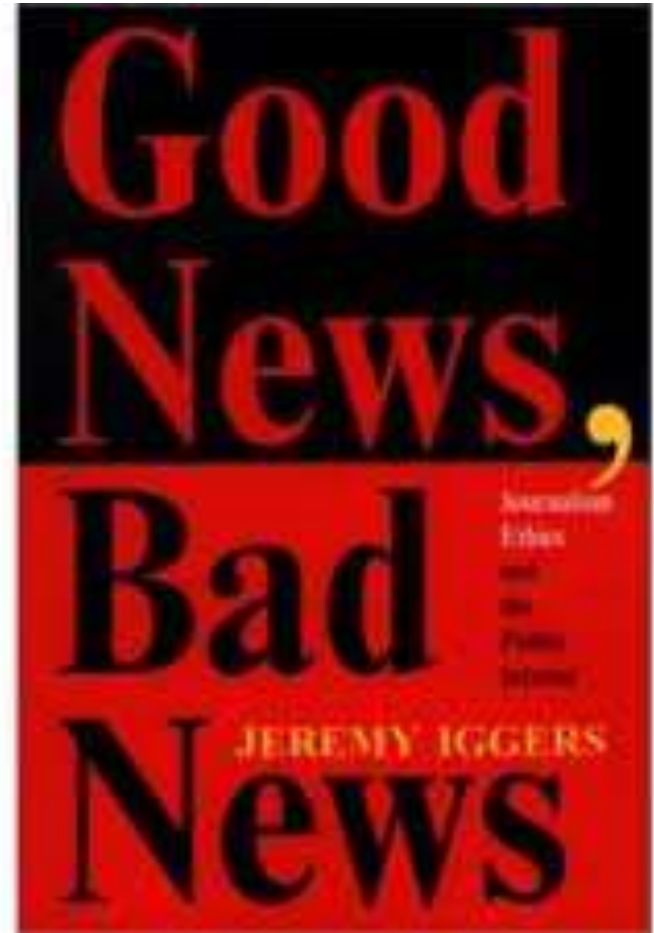
JS Data Legacy

- Long-term readers of HIStalk and this HIS-tory series may remember the story of **JS Data** (see episodes 26 & 27 on our web site at www.hispros.com) one of the pioneering turnkey minicomputer vendors that dominated the small hospital market in the 70s & 80s...

- It surprised me to learn that the letters "JS" in **JS Data** came from the firm's founder, John Sacco, who was kind enough to fill me in on the gory details from the inside about how he, Ron Young and a team of hard-working staffers including Bev Frascati made the firm into such a success that giant Baxter-Travenol acquired them as part of their tri-umvirate of products for small (**JS Data**), medium (**Dynamic Control Corporation**) and large (**Stonybrook Systems**) hospital systems.

HEALTHCARE
COMPUTING & COMMUNICATIONS

Baxter Travenol Laboratories, Inc.,
Information Business Group is interviewed
about their future in healthcare information
systems—page 54

Computerized Office Practice—page 25
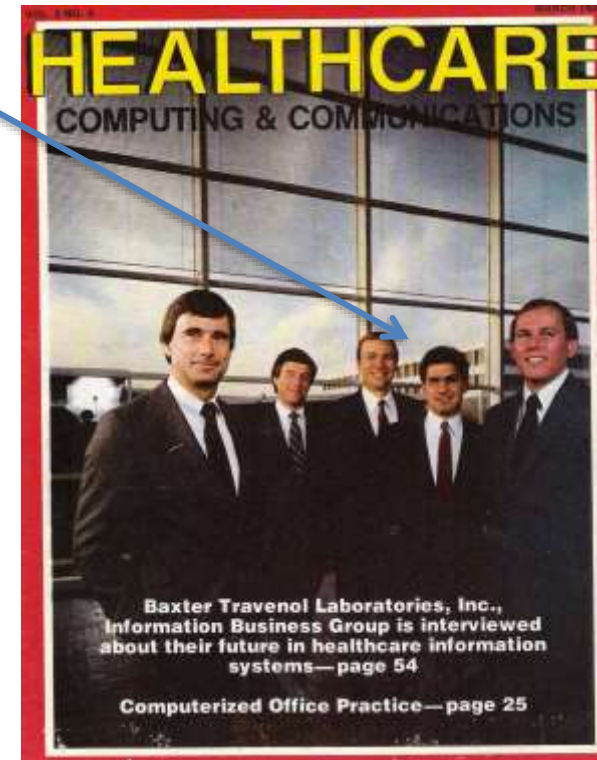
40 Years Later…

- Fast-forward a few decades later, and John Sacco turned out to be the manager of the **Epic** project at <u>UCLA Medical Center</u>, where my daughter was working as an RN informaticist… small world!

- Well, it gets even smaller as this year the wife & I celebrated the 40th anniversary of our honeymoon in 1972 by flying to Europe and re-tracing our steps back then.

- Amazingly, it turns out John has retired to Nice, France (very *nice* actually!), and we had the pleasure of dining with John last night (10/23/2012) in Nice, at a little bistro he frequents so often the owner knows him on a first name basis. Here we are pictured on the right, savoring some fine French wine from the Cote D'Azur!

Mr. "Nice" Guy…

- Why retire in Nice, France, you might ask, for a guy who grew up in Rhode Island where he built **JS Data** in RPG on an **IBM** SYS 32?

- Here are a just few reasons from our dinner conversation:

  - <u>No cars!</u> Nice, like so many European cities, is completely accessible by foot or public transportation, so the (high) price of gas & diesel over here is pretty darned irrelevant…

  - <u>Exercise</u>! John walks everywhere in this picturesque town, so his health is super even after years of illnesses in the US…

  - <u>His wife!</u> Unfortunately out of town the night we dined, Mrs. Sacco is a Brit, more at home on the continent than back here.

  - <u>Scenery</u> – check out this beach view from nearby St-Tropez:

"What's a *nice* guy like John, doing in a place like *Nice*?"

And the most surprising reason of all for we HIS vets:

- <u>Healthcare</u> – seems John had a series of illnesses in the states before he retired, and found Europe to be a far better place for treatment/payment. Now, it helps that as a foreigner John is outside of the state-run system, so he just pays cash, period. No deductibles or in & out of system MDs…

    - He even received a doctor visit *at his apartment* in Nice (near the old port pictured on the left) for an injection – when was the last time any of you ever had a *home* visit?

    - He says the MDs there have minimal staff for billing and admin stuff, so there costs are quite reasonable, even with the Euro factor.

Very Sad News…

- Last week I was terribly saddened to learn from Ed Scott, VP of Sales & Marketing at **Keane** (now **NTT Data**) of the passing of another HIS-tory hero: Ed Meehan.

- Ed had worked at **Keane** *for over 30 years*, where we worked with him on a number of system selection projects over the years.

- I remember him fondly as always being positive and upbeat, with never a nasty word to say about anyone, include competitors. I'm sure he was tempted to lambast, but yet never said a nasty word…

- Ed started at **Keane** circa 1980, during the days of Ray Paris, who headed up their Health Services Division and spent much of his time in the challenging world of sales & marketing. He is pictured above in **Keane's** booth at the HIS Buyers Seminar we held in NJ in 2000.
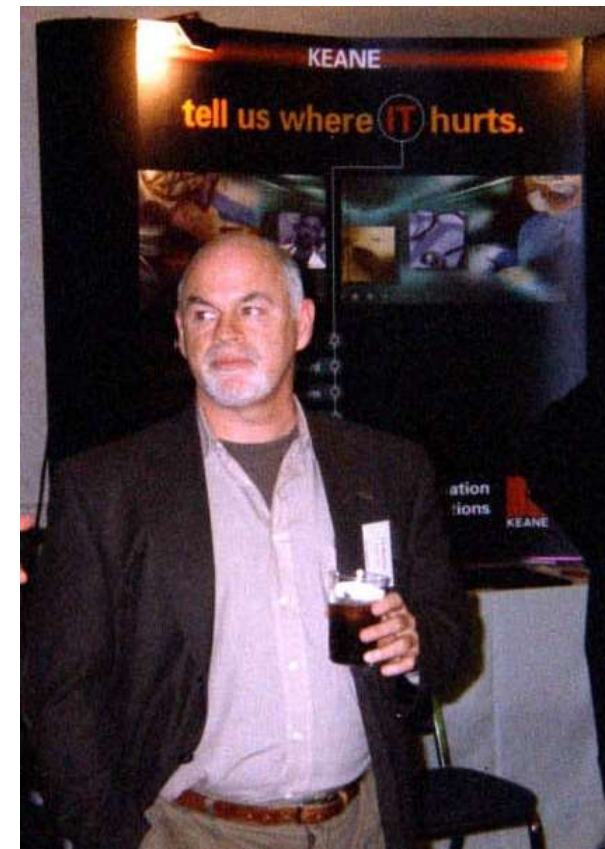
Sad News, continued…

- Ed was a hard-working guy who actually knew **Keane's** HIS systems like the early UNIX-based Threshold, later EZ-Access (PatCom) & Insight (First Coast), and today's Optimum (w/iMed EMR) in detail.

- Here he is at **Keane's** booth at the HIS Buyers Seminar we held in 2008 held in Las Vegas, Nevada, hard at work as usual…

Gone But Not Forgotten…

- I spent a pleasant time with Ed on the phone just a month ago getting his inside scoop on the many systems **Keane** had acquired over the years (episodes 62 thru 68), as well as it's acquisition, first by Caritor, then by NTT Data.

- Ed actually left the Health Services Division for a while when Caritor bought **Keane**, while he worked in their corporate marketing for a few years.

- He then retired from **Keane** altogether for a short while when NTT Data bought them, but then re-joined the firm to work in implementations at some very lucky clients who had his personal attention. Like so many old HIS salts, Ed just couldn't stay away from the day-to-day action…

Stay Tuned…

- For more details on Ed and his many accomplishments at Keane, contact Larry Kaiser, Marketing Manager at **NTT Data**, who is publishing a special tribute to Ed in their November 1 newsletter:
  - Lawrence.Kaiser@nttdata.com

  - Meanwhile, I'll be a little late on my next HIS-tory episode due to this 40th anniversary trip with the poor lady who has been stuck with me for so long…

  - So with Mr. HIStalk's kind permission, I'll do a piece next week on how technology has evolved in the 40 years since our first & latest Europe trips – not so much in HIT, as in common, everyday things like cars & boats & planes…

H.I.S.-tory

by Vince Ciotti

Episode #75:

Technology Then & Now

An HIS Diversion…

- If you've been following these HIS-tory episodes on HIStalk, you might have wondered where they've been the past few weeks…
  - (Or you may have thought "good riddance"!?)
- Well, my poor wife just suffered through her 40th year putting up with me and we decided to retrace our honeymoon from 1972 when we rented a VW Beetle and drove all over Europe for a month.
- I was pretty much out of touch during the trip, so for fun this week I'll cover how technology has evolved in those 40 years – not so much in HIT, as I was lucky enough to avoid European hospitals, but in common, everyday things like cars & boats & planes…

Terror In The Skies!

- The trip started with the terrifying experience of this dimwIT leaving his laptop in the Denver airport the week before we left!

- Now, like a good IT pro, I back up my laptop regularly, but had spent several days on the road writing emails, updating SSs, etc.

- You busy CIOs can imaging how much time you'd waste if you lost 2-3 days worth of work and had to re-do everything, so you'll know how thrilled I was to receive this message the next day:

  - "This is officer O'Donnell from the Denver police – we have a your Apple MacBookPro laptop if you would please call…"

- Someone had advised me a few years back to tape a business card to the keyboard in case it got lost, so let me pass the advice on to you all: it's cheap, low-tech and amazingly effective! So the panic subsided and we headed off to Europe **with** my Mac!

Planes Then & Now

- We flew over on a massive Delta Airbus A330-300 at ≈600MPH, with the usual array of today's high-tech stuff: on-board WiFi, noise-cancelling headsets, movies/CDs on a personal screen, etc.

- From memory, back in 1972 we were on a TWA Boeing 707 that also did 600MPH, but with nary an electronic amenity. Being newlyweds we spent a lot of time kibitzing to pass the 8 hours, but I sadly noted how this year with all the electric do-dads, we barely spoke on the flight. Some oldsters married as long as I might say "So what?" but it's a sad side-effect of our 2012 e-progress...

- Aviation buffs may recognize this photo I took in 1972 of an Air France Concorde at the Paris Orly airport – we couldn't afford it's $2K tickets back then, when it did Mach 2 or about 1,200 MPH, cutting the flight time in half! The fleet was sadly retired after a tragic accident a few years back, with *no* supersonic replacement planned.

Automobiles *Then*

Back in '72, we rented this VW Beetle, a bit of a let-down from the '67 Austin Healey 3000 we drove back in the states. But the bug got great mileage (≈30 MPG), critical in light of Europe's $5/gallon gas, and actually drew crowds in back-water towns of France & Italy!

- It was totally manual, i.e., nothing was "power:"

    - Brakes, steering, trans, windows, me, etc.

- The dash was so simple you barely noticed it: a speedometer was the *only* instrument – not even a fuel gauge! It held about 10 gallons so you bought gas about every 300 miles or else.

- Performance was pathetic: it took forever to wind through the 4-speed manual gears, so you were **forced** to look at the beautiful country…

Automobiles *Now*

- This year we rented a Peugeot 308cc Diesel, that also got 30+ MPG, sorely needed in light of today's $9 per gallon gasoline (diesel was "only" ≈$7/gallon). It came with so much automation I actually *thought* about reading the owners manual... but never did – I was too busy trying various buttons & switches!

- Event the roof was power-driven, as was everything else on the car (except me): steering, brakes, trans, windows – even the rear-view mirrors could retract at the push of a button – handy on some of the incredibly tight side streets of Marseilles, Milan, Nice, etc.

- The most amazing level of automation was the dashboard, dominated by a GPS screen that not only gave directions, but also controlled the radio and *alerts*.

Dashboard "EMR"

- "Alerts" you ask? Check the screen above to see how the screen beeped loudly and flashed a warning icon when the right front corner of the car was too close to another car while I was trying to park in a tight space in Arles (yes, Van Gogh's joint!)

- The shots on the right show how these marvelous devices are still programmed by *humans*, however. The "roads" it would take us on were sometimes little more than one-lane alleys or even driveways! Some fascinating parallels to our (over?) reliance on EMR order sets, medical alerts, etc.

Cell "Phonies"

- One of the best parts of the trip was that my el cheapo Verizon cell phone did not work in Europe (wrong SIM card). Even if it did, at $2 per minute for international calls, I would've never turned it on!

- Sadly, just like us, Europeans today are totally taken by these handheld addictions, as witnessed by this street scene on the Champs-Elysees in Paris which by luck I had snapped 40 years ago from the same spot. Note how the trees have grown since then to block the Arc De Triomphe, but that same red awning is still there.

- Saddest of all, note how today's Parisians and tourists are totally absorbed in their PDAs, oblivious to the people & beauty nearby…

1972

2012

Boats, Then & Now

- We were lucky enough to take a "Hovercraft" to cross the English channel from Calais to Dover 40 years ago, and captured it in this shot below. An amazing vessel, it flew (literally!) across the waves at about 80MPH with nary a bump or shimmy from the waves.

- These amazing craft carried 50 cars and several hundred passenger, our only complaint being the trip was so short we barely got to enjoy the view!

- They were retired after 30 years of service in 1998 and replaced by the "Chunnel." See the next slide for the view today while driving through this modern engineering replacement…

View From the Chunnel

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Reformed Luddite

- Lest I sound too much like a Luddite, there is one area of technology that today is so much better I'm enthralled with it:

- <u>Digital Photography!</u> – the grainy pictures on the left from 1972 were taken on a Kodak "Instamatic" camera we borrowed from a friend back then, scanned and retouched via Photoshop today.

• By contrast (no pun intended), take a look at how much better the Notre Dame Cathedral looks on the right compared to the pathetic, hand-aligned panorama I pieced together 40 years ago – *Vive La Difference!*

Next Week

- Back to business, as we return to the thrilling days of yesteryear and the roots of today's leading vendors, picking up with **CPSI**.

- Test Question: how many people know the meaning of those four letters without Googling the answer?

- Well, I was privileged to steal an hour of two **CPSI** veterans on the phone to chronicle the amazing story of this tiny vendor that has since overtaken both **Keane** & **QuadraMed** in annual revenue:
  - <u>David Dye</u>, former CEO and current Chairman of the Board
  - <u>Scott Schneider</u> – former VP of Marketing and current EVP

- They promised some pictures of the firm's 1979 founders, "Kenny and Denny," two names I had never even heard of before, so stay tuned to catch this fascinating story next week. And if you have any gems to share about **CPSI**, please forward them to vciotti@hispros.com – I'll give you all due credit (or blame!)

H.I.S.-tory

by Vince Ciotti

Episode #76:

CPSI

Part 1

5th of *Today's* Leading Vendors

- This week we begin the 5th episode on *today's* HIS vendors: **CPSI**, whose 2011 annual revenue has recently passed both QuadraMed & Keane:

  - $3.2B = <u>McKesson</u>, née HBOC = Walt Huff, Bruce Barrington, & David Owens
  - $2.2B = <u>Cerner</u>, *still* run by Neal Patterson, co-founded with Cliff Illig
  - $1.7B (est) = <u>Siemens</u>, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde
  - $1.4B = <u>Allscripts</u>, née Eclipsys, also founded by Harvey Wilson of SMS.
  - $1.2B = <u>Epic</u>. Gee, I have to wonder, just *who* was it who founded them?
  - $900M (est) - <u>GE Healthcare</u>, née IDX/PHAMIS: created by Malcolm Gleser
  - $545M = <u>Meditech</u>, *still* run after all these years by Antonino Papallardo
  - $353M = <u>NextGen</u>: new Opus & old Sphere financials by Florian Weiland
  - $174M = <u>CPSI</u>, founded by M. Kenny Muscat & Denny P. Wilkins *(who??)*
  - $170M = <u>QuadraMed</u>, née Compucare, founded by Sheldon Dorenfest
  - $160M = <u>Keane</u>, parent giant by John Keane, but HIS div. built by Ray Paris
  - $110M = **HMS** (Healthcare Management Systems), Tom Givens & John Doss
  - $70M (est) = <u>Healthland</u>, formerly Dairyland, founded by Steve Klick

CPSI

- So how did you do on last week's test – just what do the letters **CPSI** stand for?

- I must confess, I never knew for years until someone finally revealed it:

  - Computer Programs and Systems, Inc.

- And their roots are as fascinating as that swimsuit picture, which by the way, is one of the few ads they ever ran, from way back in their early days in the 80s.

  – I couldn't find a single **CPSI** ad in my archives of Computers in Healthcare, nor in any current HIS magazines!?

  – As you'll learn, this is a very *different* company than most HIS vendors…

Because patient safety is not an option, the safe choice in IT systems makes it standard.

CPSI

Technology will only improve patient safety if it is integrated with your IT system. The CPSI system drastically reduces the likelihood of errors by integrating computerized physician order entry with electronic verification of medication administration. Clinical decision support tools throughout the system safeguard your patients and your hospital. And by giving your physicians the real-time clinical information they need, you not only improve patient safety but also patient outcomes. When you're ready to make the safe choice in a hospital information system, call 1-800-711-CPSI or visit us online at www.cpsinet.com.

CPSI. Clear direction for healthcare information solutions.

Many Thanks to…

- So where did I get these JPEG gems from? An old friend, and one of their very first employees (actually, # 5 from way back in 1980):
  - Scott Schneider – VP of Sales for over 10 years and now EVP
    - To show you just how smart Scott is, he gave me most of the embarrassing pictures you'll be seeing of the original founders of the firm, but of course none of himself…

- Scott and current CFO, David Dye, pictured on the right when he was CEO (amazingly young, huh?), were kind enough to relay the full HIS-tory of this fascinating vendor that actually has much in common with HIS giants **Meditech** and **Epic**!

- You don't believe me? Well, hang on to your mouse as we tell the tail

David Dye - President

Original Founders

- **CPSI** was founded back in 1979 by the duo of "Denny & Kenny," childhood friends from the Mobile, AL area, who both left their jobs in that year to form **CPSI**; Denny's backgrounds is amazing:

  - **Denny P. Wilkins** - got his B.S. in physics from the **University of Notre Dame** and holds both an **M.S.** and a **Ph.D. in high energy physics** from Florida State University. He served in the **U.S. Army** for four years, first teaching at the **Command and General Staff College at Ft. Leavenworth**, and later doing research at the Army's **Harry Diamond Laboratory** near Washington D.C. No jokes about "rocket science," this kid rocked!

2nd Founder, and his Uncle…

- Denny's buddy Kenny had a more traditional HIS background (as well as business portrait:)

  - **M. Kenny Muscat** – was the D.P. Manager at the **Mobile Infirmary**, a giant 700-bed facility in Mobile with the typical large inhouse DP shop in those days and a large, self-developing programming staff.

- Turns out Kenny had an uncle who needed financial system software for an **NCR** minicomputer he had at his firm. Kenny had deep experience with financial systems from the Infirmary, as that is usually what most inhouse shops started developing back then…

  - His childhood buddy Denny was interested in leaving academia and getting into the business world, so the two formed **CPSI** to write financial systems for an **NCR** mini, hiring 3 programmers Kenny knew from the **Infirmary**.
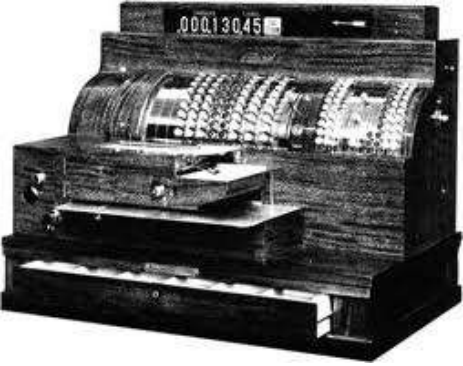
NCR?

- Now what did the **National Cash Register** company have to do with minicomputers, you might ask? Well, **NCR** was the original home of Thomas Watson of later **IBM** fame, and a leader in the mainframe BUNCH Group that chased **IBM** into minis in the 70s.

- And what powerful machines they were back in those days! Scott Schneider remembers some of their CPUs had 10 whole Megs!
  – (eyes off the skirts, guys - this was the era of minis!)

NCR 299 Mini

NCR 399 Mini

NCR 8250 Mini

Looking for an NCR Sales Rep…

- **CPSI's** software pleased Denny's Uncle so much that word spread to other facilities in AL with **NCR** minis, including hospitals, who also were primarily automating financial systems back then.

- So if you're forming a firm that's writing software for **NCR** minis, who do you look for to head up your sales effort?

- You guessed it, Denny & Kenny recruited the NCR sales rep who had also sold an **NCR** mini to their first hospital client:
  - **Thomas Hospital** in Fairhope, AL, who ran **CPSI's** software for almost 40 years until they were recently acquired by, guess?
  - The **Mobile Infirmary** – the same place Kenny started out at!
    - Now don't even ask me what HIS they're being converted to
      - I'll give you a hint: the Mobile Infirmary is very large…
  - And who might that NCR rep have been? Stay tuned 'til next week as we continue the inside story of this small-hospital giant

H.I.S.-tory

by Vince Ciotti

Episode #77:

CPSI

Part 2

Pictured: (top) Denny Wilkins and Kenny Muscat
(bottom left to right) Bill Stillings, John Heyer, and Bob O'Donnell
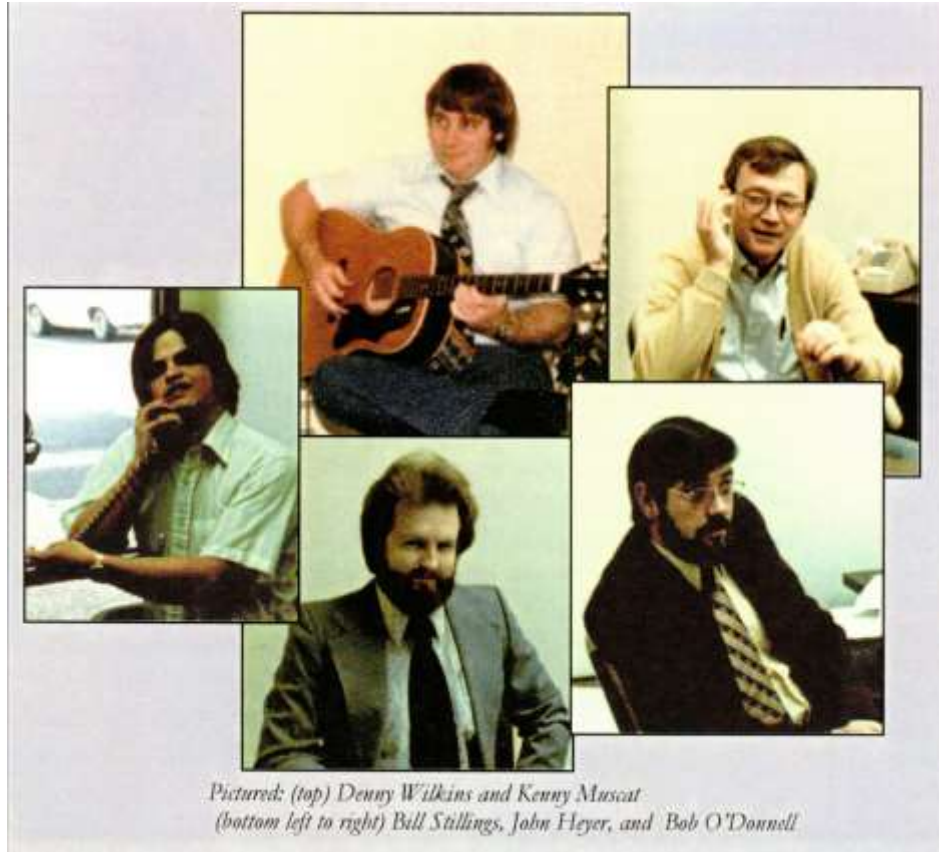
A **LARGE** small-hospital vendor

- I'm afraid CIOs from large hospital and IDNs might not realize just how big a player CPSI is in the small hospital market, so here's some perspective:

  - Of the roughly ≈5,000 acute care hospitals in the US (excluding federal hospitals like the VA), the median bed size is about 160 beds, meaning about ½ are larger than that and ½ smaller. That small market half of ≈2,500 hospitals is the target market for small hospital specialty vendors like CPSI, Healthland and HMS. Larger vendors like Meditech, NextGen and McKesson are strong down there too, but these 3 are the small hospital niche leaders:

    1. <u>CPSI</u> ≈ 650 client hospitals, about 600 are under 100 beds.

    2. <u>Healthland</u> ≈ 500 hospitals (including recent AHN and APS acquisitions)

    3. <u>HMS</u> ≈450 (excluding many LTAC hospitals and MedHost ED clients)

    (Hard to rank Meditech's ***three*** products: Magic, C/S and Release 6!?)

  - Amazingly, CPSI ranks *fourth* in # of hospitals attesting for Meaningful Use:

    - Epic ranks first (349), Cerner 2nd (321), Meditech 3rd(305) then CPSI (148) Well ahead of much larger firms like Siemens, McKesson, Allscripts, GE…

Impressive Revenue Growth Too

- The chart below shows how well CPSI has clearly led these 3 main competitors in terms of annual revenue over the past 20 years, even passing our estimates of Keane and QuadraMed in 2011:

20 Years of Small Vendor Revenue HIS-tory
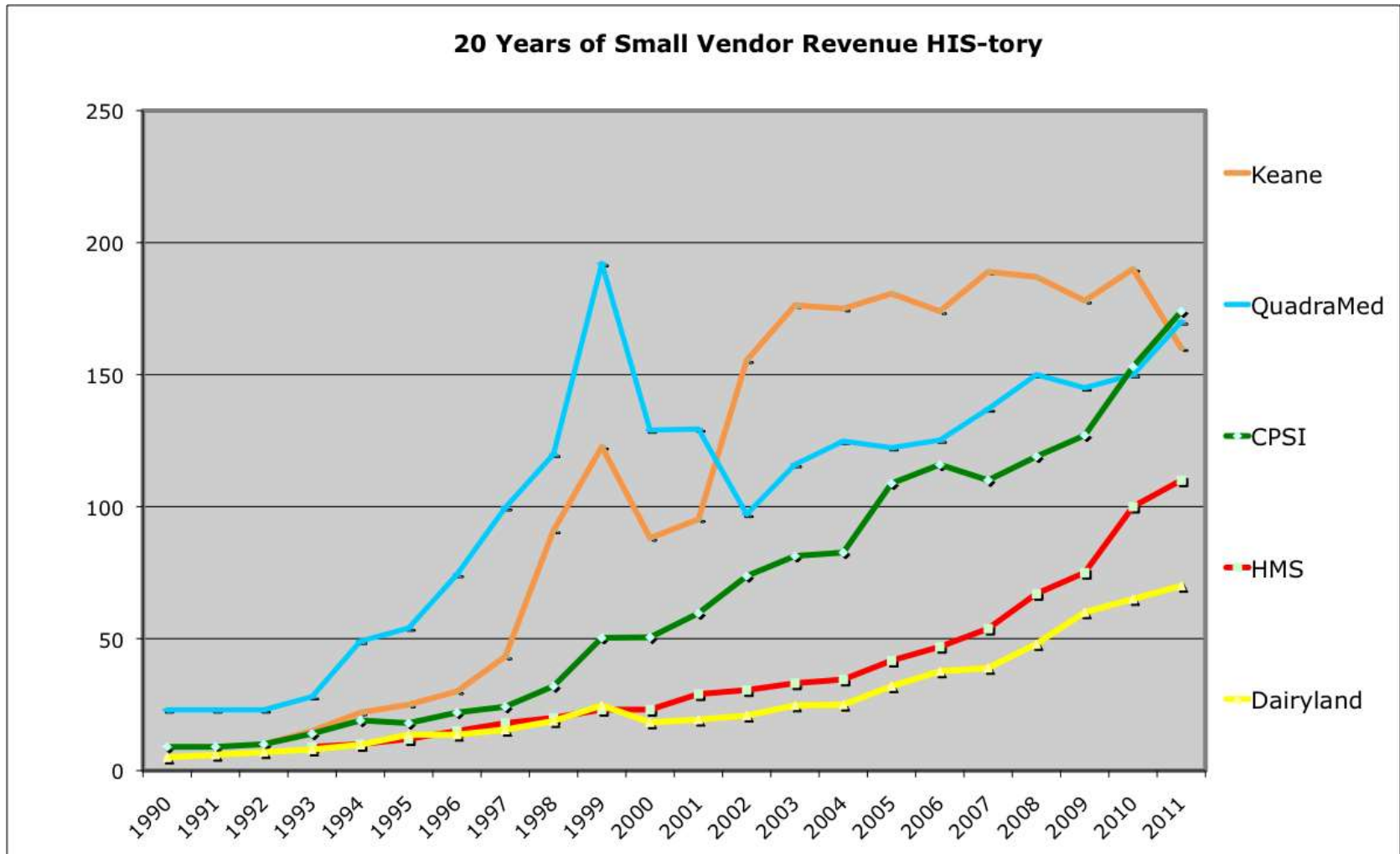
So How Did They Sell So Well?

- There are several reasons for **CPSI's** amazing growth over the years, starting with the answer to last week's ending question:

  – Who was that NCR salesman they hired back in the early 80s?

- The answer leads us again to **<u>Scott Schneider</u>**, who so kindly told much of this tale of their amazing ride along with David Dye.

- Scott not only sold the first hospital client Thomas Hospital their NCR mini, he also spread the word about **CPSI** software to so many other NCR prospects that **CPSI** stole him as their 11th employee back in 1983.

- Scott has to take the credit (blame?) for steering **CPSI** away from its wide array of generic industries that it had been selling its mainly financial systems to in the Mobile area, that includes such diverse companies as: the local **Coca-Cola distributor**, several **hardware** stores, and even a **funeral** home, who all needed GL, AP, AR, etc.

First VP of Sales

- As good a rep as Scott was (and we did a number of deals with him over our 20 years of HIS consulting – he was a real class act!), the challenge of building a *national* sales staff was very daunting:

  – Commission plans, territories, hiring & training new reps, etc.

  So Scott was not **CPSI's** first VP of Sales , but rather they hired:

- John Morrissey, who was CPSI's VP of Sales for 14 years, starting in 1984 (left on left). John came from a Pensacola firm that sold Burroughs equipment, even those old posting card machines that predate DP!

- Under John's leadership, **CPSI's** sales staff penetrated the *national* market place, from Vermont to Utah! Indeed, it was a Utah client that wanted a Lab system so badly they started **CPSI** down the clinicals path, later adding RX, Radiology and Orders/Results, to compete with the growing ranks of their "total HIS" competitors.

Technical Approach

- Having started by hiring several programmers from the *inhouse* shop at **Mobile Infirmary**, **CPSI's** programming language reflects it

  – **COBOL** – probably *the* most popular programming language back in the halcyon inhouse self-development mainframe era.

- Their OS however avoided NCR's proprietary version, and even avoided the pitfall of picking a given mini manufacturer's OS that led many early hospitals to become solely DEC, IBM or DG shops.

- Instead, **CPSI** took the same "Open" approach John Indrigo did at Infostat and Ray Paris did with Threshold (if you missed episodes #65 & #19, refresh your memory at our web site: *hispros.com*):

  – **UNIX** – a platform independent operating system that enabled **CPSI** to run an a wide range of minis, including such brands as:

Technical Evolution

- In the 90s as the "client/server" revolution swept healthcare along with all other industries, **CPSI** migrated from **UNIX** to **LINUX**, and also switched from "dumb" terminals to using PCs as devices.

- An interesting sidebar Scott & David relayed was how one of their founders was very sour on PCs, concerned about their impact on hospital (and **CPSI**!) employees' productivity... His famous quote:

  – *"The only thing you can do on a dumb terminal is your job!"*

- How prescient in this age of eBay, gaming, PDAs and "cell-phonies"

  – Just how *do* you keep them from social networking on the job?

Software Evolution

- **CPSI's** suite of applications grew over the years too, to where today it encompasses more apps than any other HIS vendor.
  - Don't believe me? Then tell me who else in this industry offers their own **PACS** and **Time & Attendance** system!?
  - Even billion-dollar giants like McKesson either acquired their **PACS** (e.g.: McK buying ALI's) or punt to Kronos for **T&A**…
  - Cerner and Meditech come close, but both have sinned a bit:
    - Meditech with LSS & PtCT, and Cerner with Citation, etc.
- And all **CPSI** apps are home-grown, written by programmers in Mobile to share data among the same db (albeit proprietary…)
- Indeed, when you think of the acquisition-mania of firms like McKesson, that has bought so many systems over its and HBOC's HIS-tory it may take a 20-part episode to tell about them all,
- **CPSI** has an enviable record when it comes to acquiring products and or companies. See the next page for the complete list:

Help With Next Week/Vendor…

- Next week we'll wrap up the saga of **CPSI** with the interesting human side of their corporate culture, and that comparison to **Epic** & **Meditech** that I promised during last week's intro.

- After completing the 30-year HIS-tory of **CPSI**, we'll delve into a relative newcomer in HIS ranks, but one that is making quite a splash: **NextGen**

- They're so new, I don't know much about the physician practice parent, mainly their <u>Opus</u> & <u>Sphere</u> HIS components, so anyone who can put me in touch with **NextGen's** founder(s) will get free beer(s) at HIMSS…

H.I.S.-tory

by Vince Ciotti

Episode #78:

CPSI

Part 3

Because patient safety is not an option,
the safe choice in IT systems makes it standard.

CPSI

Technology will only improve patient safety if it is integrated with your IT system. The CPSI system drastically reduces the likelihood of errors by integrating computerized physician order entry with electronic verification of medication administration. Clinical decision support tools throughout the system safeguard your patients and your hospital. And by giving your physicians the real-time clinical information they need, you not only improve patient safety but also patient outcomes. When you're ready to make the safe choice in a hospital information system, call 1-800-711-CPSI or visit us online at www.cpsinet.com.

CPSI. Clear direction for healthcare information solutions.

Per Modern Healthcare…

- In case you wonder why we're dwelling so long on such a small vendor as **CPSI**, check this out:
  - Just this October, <u>Modern Healthcare</u> published the graph on the right based on HHS statistics ranking HIS vendors by their percentage of the 1,400 hospitals that have attested thus far for Meaningful Use funds.
  - **CPSI** led the pack, even edging out **Epic**, **Meditech** and **Cerner**!
- Kenny Muscat & Denny Wilkins must have been very proud, but what were the secrets to **CPSI's** success?

MEANINGFUL MARKET SHARES

COMPANY

CPSI — 19.3%

Epic Systems Corp. — 18.2%

Meditech — 12.5%

Cerner Corp. — 11%

Healthland — 8.4%

McKesson Corp. — 6.1%

Healthcare Management Systems — 5.4%

Siemens Medical Solutions USA — 5.1%

Allscripts Healthcare Solutions — 4.6%

Health Care Systems Inc. — 1.7%

Nearly 1,400 hospitals have been awarded federal incentive payments for meaningful use of complete electronic health-record systems. These vendors are the top 10 by percentage of those installations.

Source: HHS

MODERN HEALTHCARE GRAPHIC

14 Modern Healthcare • October 29, 2012

Keys to Success?

- This leads us into an area I promised in the intro: what **CPSI** has in common with **Meditech** and **Epic**, which will make a fun lead-up to their two HIS-tories that will come up in a few months.

- There are several things these three leaders in the small, mid-size and large hospital markets (in that order) share:

  1. <u>Rookies</u> – for most of their staff, they hire college graduates right out of school, with little or no prior HIS experience…

  2. <u>Corporate HQ</u> – all of their employees live in or very near their corporate HQ city: Mobile, Boston and Verona.

  3. <u>Acquisition-Free</u> – two of these vendors roll their own HIS, acquiring no vendors and/or products; one has done a few…

  4. <u>Integration</u> – the hallmark marketing slogan for all three, although in truth two have gaps: one big, the other small.

- We'll next look at each of these four areas in turn in detail:

Rookies

- I can't discuss this subject without remembering my first job in HIS in 1969: I was an English Major at Temple U. in Phila. And was hired by **SMS** to install **IBM's** SHAS system. After a few months of reading **IBM** manuals and attending an (excellent) class taught by some of the best & Brightest **IBM** ever had (and **SMS** ever stole), they sent me up the NJ turnpike to St. Vincent's Hospital in Staten Island. There I pulled out the SHAS OPS manual and my class notes, and proceeded to convert their AR from posting cards.

- A few months later, the hospital had to borrow money from Blue Cross to meet their payroll, as we had totally botched the conversion by simply getting *one field* wrong: card column 11 of the header card.

  - as SHAS devotees know, it should contain a "6" for OP *charges* (batch type 03*)*, not for new AR from *card input* (batch type 05)!

So Why Rookies?

- So why in the world do the three leading vendors today *still* hire college graduates who can't spell RN or MD? Several reasons:

  1. <u>Cost</u> – Forget all this "partner" crap, vendors are in it for the money and college graduates are the cheapest FTEs one can find, hence the lowest Payroll costs and highest profit margin. SMS paid me $7,500 in 1969, while savvy veterans like Karl Sydor, who SMS hired in 1970 to bail things out at St. V's, probably earned *twice* as much...

GREED IS GOOD.

Lust is fine.
And pride over owning 17 S is gangsta.

VERY DEMOTIVATIONAL .com

  2. <u>Malleability</u> – Once these kids go through your training class and work under the few experienced managers, they learn the "**CPSI** (or **Epic** or **Meditech**) Way," reflecting the company culture and values, making sure clients do things just the way corporate wants them to, whether good or bad for the client.

The Other Side of Rookies

- There are some *up-sides* to recent college graduates too, namely:

1. <u>Work Ethic</u> – SHAS became my life back in the early 70s as I dog-eared the OPS and PDM manuals, and memorized every ID memo <u>Mike Mulhall</u> sent out on new modules and features. Usually on Saturdays. We travelled on *personal* time to be at the client 9AM no matter how far they were from **SMS**, and stayed until 6PM most nights. Truth is, the clubs didn't fill up with hot chicks until 10PM anyway, and most were closed on Sundays..

2. <u>Promote-ability</u> – The natural weeding out process caused any "losers" to either leave or get canned, and led to a rash of promotions of those who earned it. For example, <u>David Dye</u> joined **CPSI** right out of school as an economics major, and worked his way up the ranks to become CEO *in only 9 years!*

Corporate HQ vs Field Offices

- The Internet age has changed things a bunch since the 70s and 80s when these three companies started, but they can't shake their tradition of having all employees live in or near their HQ.

Mastering the Boston Accent

Do not allow back of tongue to recoil toward back of mouth. Will keep "r"s soft.

Keep back of mouth tight. Do not open excessively.
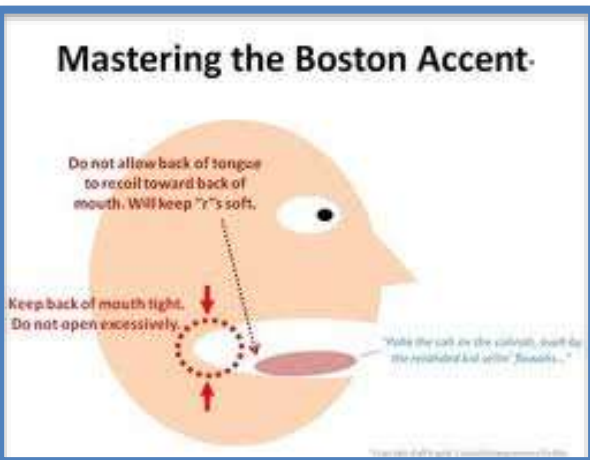
- And it must hurt sales as those Boston accents from **Meditech** reps and "good old boy phrases" of **CPSI** reps from Mobile grate on ears from California or Iowa!?

SOUTHERN DRAWL BAND

- Which might also explain why **Meditech** dominates the New England market and **CPSI** owns the deep south: those CIOs understand 'em!

- Once again, however, the main motivation is monetary: clients pay for all trips to clients during implementation/service, leaving the firm to pay only for relatively fewer sales & marketing trips by reps.

- Of course, Epic faces no such problem as Judy merely sits in Verona and waits for large AMCs and IDNs to "apply" for a proposal…

Little/No "Acquisition-itis"

- This fabulous graphic Mr. HIS-Talk published a while back sums it nicely: these three leading vendors acquire little or nothing!

TWENTY YEARS OF HCIT CONSOLIDATION: 1992-2012

1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

EPIC

CPSI

LSS Data Systems, $17M (EHR)

MEDITECH

Patient Care Technologies, $9M (home care, hospice, telehealth software)

Has spent over $25M on acquisitions since '07
Avg Deal Size: $; Activity: √
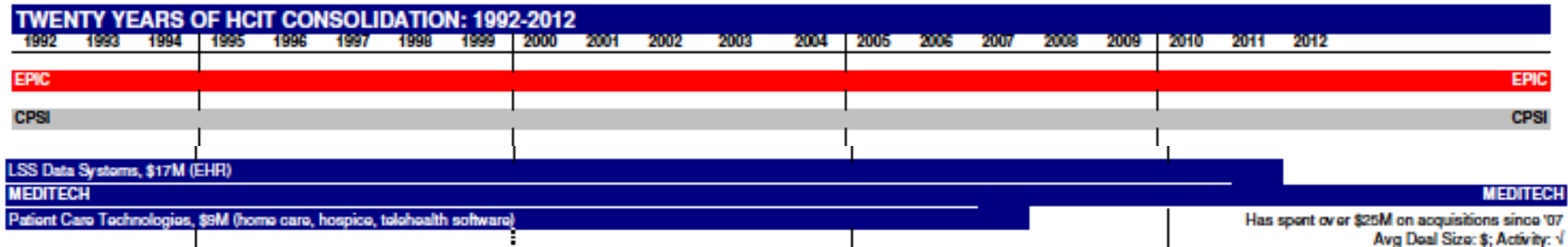
- As opposed to *scores* of bars for most vendors such as Cerner:

Resource Systems, $28M (PoC documentation system)
Clairvia, $37M (workforce mgmt)
IMC Health Care, $15M (on site health centers)
LingoLogix, $4M (automated coding)
Etreby, $25M (retail pharmacy systems)
Galt, $14M (Safety and risk management)
BeyondNow, $7.5M (home care)
Image Devices GmbH, $16M (PACS)
Dynamic Healthcare, $20M (labs, diag)
Mitch Cooper, $2M (supp chain consult)
Health Network Ventures, $8M (transactions)
CERNER
CITATION, $17.8M (labs)
ADAC, $5.3M (radiology)
APACHE, $3.6M (doc support)
ZynxHealth, $15M (clinical decision support)
Gajema Software, $1.5M (lab software)
Project IMPACT, $0.3M (ICU Benchmarking)
VitalWorks medical division, $100M (EHR/PM)
DKE SARL, $5M (Europe HCIT)
Bridge Medical, $11M (PoC, patient safety) [acq by ABC in 2002]

Has spent +$300M on acq since '92
Avg Deal Size: $; Activity: √√√

- In case you're going blind trying to read the fine print, Meditech's two acquisitions are LSS (Lake Superior Systems), their physician practice solution, & PtCT (Patient Care Technologies) home care.

Integration
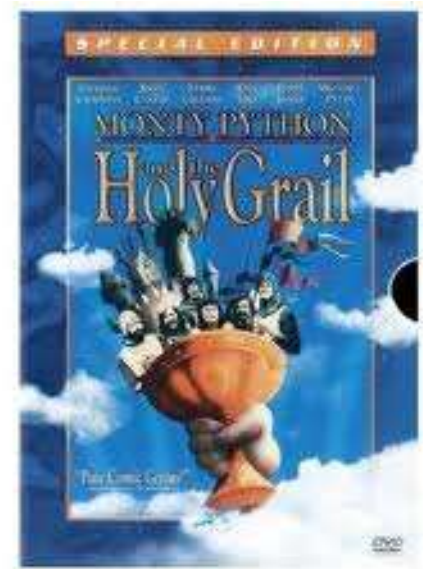
- The "Holy Grail" of so many CIOs tired of being ripped off by vendors who over-charge for interfaces, then the inevitable finger-pointing between them whenever things go wrong...

- Our three excel in this regard, with few caveats:
  - **EPIC** makes *most* of its sales from physicians who insist on seeing the same EMR in their practices as in the hospital. Of course, they don't know how to spell "ERP" up in Verona...
  - **Meditech** was one of the first vendors to offer a "Total HIS" way back in the mid-80s when they added a full set of financials to their robust clinicals. Only LSS's physician EMR and PtCT's Home Care are interfaced "under the covers..."
  - **CPSI** – is the absolute king of integration, not only offering a full set of clinicals and financials (including ERP), but even including their own Time & Attendance and PACS systems!

Next Week…

- So there you have it, how **CPSI** started with Kenny & Denny and rose to the top of the small-hospital market by following these four principles.

- After completing this 30-year HIS-tory of **CPSI**, we'll next delve into a relative newcomer in HIS ranks, but one that is making quite a splash: **NextGen**

- They're so new, I don't know much about the physician practice parent, **Quality Systems Inc**., mainly their **Opus** & **Sphere** HIS components, and acquisitions of Rick Opry's **IntraNexus**. VP of Sales Christie Guthrie has promised to help, so stay tuned next week to see what she delivers…

H.I.S.-tory by Vince Ciotti

Episode #79: NextGen Part 1

6th of *Today's* Leading HIS Vendors

- This week we begin the 6th episode on *today's* HIS vendors: **NextGen**, whose 2011 annual revenue places them right behind **Meditech**:

  - $3.2B = <u>McKesson</u>, née HBOC = Walt Huff, Bruce Barrington, & David Owens

  - $2.2B = <u>Cerner</u>, *still* run by Neal Patterson, co-founded with Cliff Illig

  - $1.7B (est) = <u>Siemens</u>, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde

  - $1.4B = <u>Allscripts</u>, née Eclipsys, also founded by Harvey Wilson of SMS.

  - $1.2B = <u>Epic</u>. Gee, I have to wonder, just *who* was it who founded them?

  - $900M (est) - <u>GE Healthcare</u>, née IDX/PHAMIS: created by Malcolm Gleser

  - $545M = <u>Meditech</u>, *still* run after all these years by Antonino Papallardo

  - $353M = <u>NextGen</u>: née Quality Systems Inc. founded by Sheldon Razin

  - $174M = <u>CPSI</u>, founded by M. Kenny Muscat & Denny P. Wilkins *(who??)*

  - $170M = <u>QuadraMed</u>, née Compucare, founded by Sheldon Dorenfest

  - $160M = <u>Keane</u>, parent giant by John Keane, but HIS div. built by Ray Paris

  - $110M = **HMS** (Healthcare Management Systems), Tom Givens & John Doss

  - $70M (est) = <u>Healthland</u>, formerly Dairyland, founded by Steve Klick

A Complicated Family History

- Actually, I wish the HIS-tory of **NextGen** was as simple as that graphic on the title slide implied!

- In fact, it is the convoluted story of a half-dozen assorted HIS vendors over the past 4 decades.

- Time doesn't allow the full story of all the firms acquired such as H.S.I. and P.M.P. of Hunt Valley…

- So we'll just cover the 4 biggest of the "*Previous-Gen*" firms that got acquired/merged over time and that have the most impact on hospitals today. In chronological order of their founding, they are:

  - **QSI**, founded by Shelly Razin way back in 1973

  - **Sphere**, founded by Florian Weiland in 1984

  - **Opus**, founded by Rhoads & Beck in 1987

  - **IntraNexus**, founded by Rick Opry in 1992
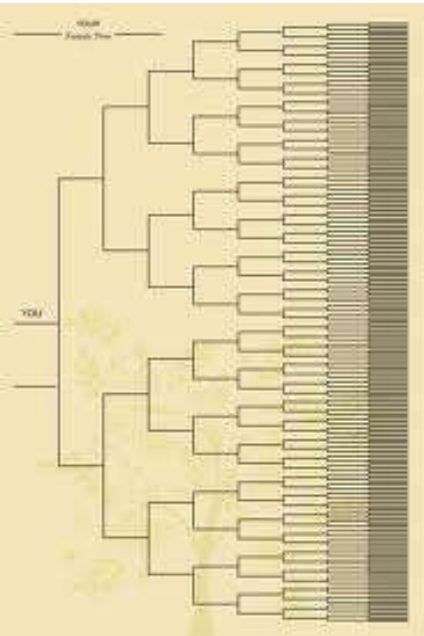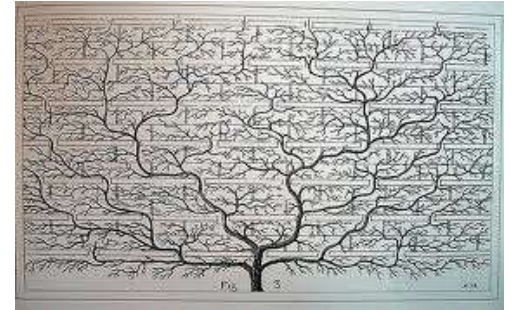
A Bit "Long In The Tooth…"

- The story of QSI takes us way back 4 decades ago and into another niche in HIT systems: **dentistry**.

- QSI's founder, <u>Sheldon Razin</u>, cut his teeth (so to speak) in technology at **MIT** where he got his BS in math (ironic that he didn't meet <u>Neal Papallardo</u> and company there or he might have joined **Meditech**!), then started working for Rockwell International.

- He next formed Quality Systems in the early 70s, with $2,000 of his personal funds, developing software for commercial and space applications.

- Selling space systems was hard as pulling teeth, so he tried simpler systems for dentists, whose practices then were as paper-driven as hospitals

- We won't drill-down any more into dentistry as my annual exam is coming up and I get nervous…

Growth, IPO & First Acquisitions

- There must have been a large cavity in the dental system market which Shelly filled rapidly, capping QSI's success by going public in 1980 (that's him in the middle on left).

- QSI's market cap (right) grew equally well preparing the firm for a number of subsequent acquisitions and mergers, starting in 1996 with:
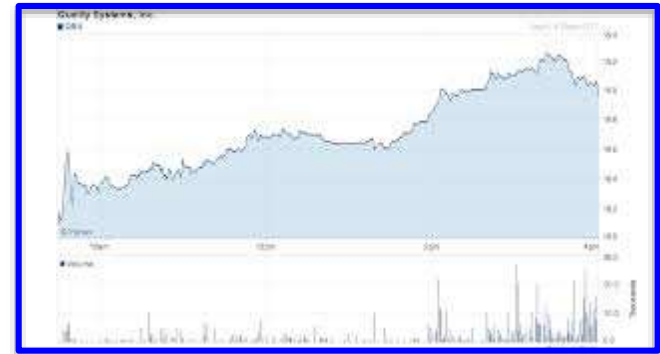
- **Clinitec** – which was formed by Pat Cline (pictured on the left) and Bryan Rosenberger (both since retired in 1993 to sell software for converting MD practice's paper charts into electronic medical records, at a time when the term EMR didn't even exist yet!

Next Target…

- **QSI** next set its sights on a Practice Management System (*why doesn't anyone ever use the simple acronym "PMS"?*) to complement **Clinitec's** EMR for physicians.

- The firm they targeted was led by a talented individual who is still with **QSI** to this very day: <u>Tim Eggena</u>, pictured above. His brief bio:

  - 1990 graduate of Auburn S.C. where he started in the College of Business as a finance major, but ended with a degree in MIS.

  - His first job was in nearby Atlanta at… (are you ready for a shock?) some local software firm named "**Gerber-Alley**"!

  - What a small HIS world, no? Anyway, Tim tired of **G-A's** green-screen, mini-based HIS and joined a group of young **G-A** programmers meeting on weekends to design a system for the red-hot PCs flooding the market. The group fizzled ≈1993…
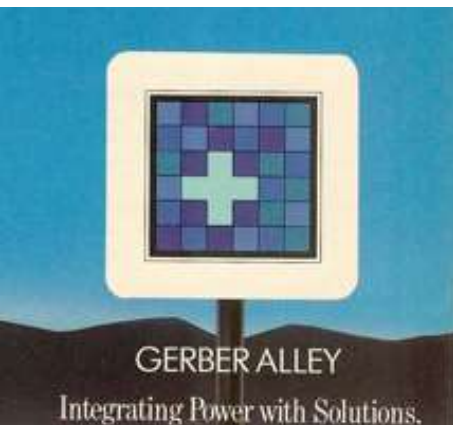
Birth of micromed

- Tom knew the CIO at <u>Bayfront Medical Center</u> in St. Pete, FL, and she inquired about a PMIS (*yeah, I'm chicken too...*) for PCs.

- Tim and Steve Puckett (CTO today) formed **MicroMed Healthcare Information Systems** to write a scheduling system in Windows (probably 3.1 – back then Gates was still stealing ideas from Apple's for Windows '95......), which went live at Bayfront in 1994.

- Through word of mouth, **MicroMed** sold several more practices and started building their total PMIS: Reg., Sched., BL and AR. Tim and Steve needed capital to continue growing and debated an IPO, being acquired, or merging with a larger firm. The answer:

A pioneer of the HIT sector, QSI remains at the cutting edge.

- **QSI** acquired them in 1997 as their PMIS, to combine with CliniTec's EMR to create a total solution, which they named around 1999 as "**NextGen.**"

Next Week...

- So that's how **QSI** started in dentistry software, and ended up as a leader in the physician practice market with their "Next Generation" combination of **CliniTec** and **MicroMed**

- So what's this got to do with *Hospital* Information Systems you ask?

- Stay tuned for next week as we cover the three HIS vendors QSI acquired next that now make **NextGen** as major a player in the HIS market as in PMIS:

    - Florian Weiland's **Sphere**

    - Tim Rhoads & Fred Beck's **Opus**

    - Rick Opry's **IntraNexus**

H.I.S.-tory by Vince Ciotti

Episode #80: NextGen Part 2

QSI's "Sphere" of Influence

HIS-tory of NextGen

| 1973 | 1980 | 1984 | 1985 | 1987 | 1993 | 1994 | 1996 | 1997 | 2009 |

American Financial Systems

-> I.H.S. -> Tri-Cord HIS   -> Sphere

Quality Systems Inc   IPO   Acquires CliniTec & MicroMed   -> NextGen   Acquires Sphere, Opu
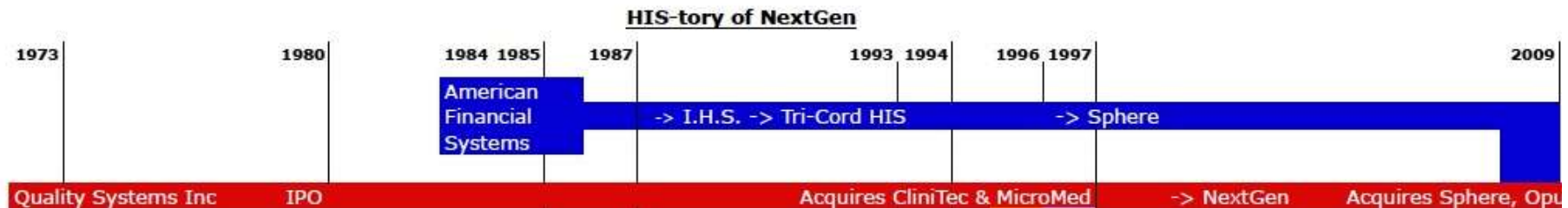
Florian Weiland's HIS-tory

- We learned in the first episode on NextGen how their QSI parent went way back to 1973 and Shelly Raizin's dentistry system.

- This week's episode covers NextGen's hospital financial system, Sphere, acquired in 2009, but whose roots go way back to *1972!*

- Sphere's founder, Florian Weiland, emigrated from Switzerland to Canada, along with his Engineering degree.

- He moved to Toronto, which might have seemed *warm* to a Swiss native…

- Florian had studied COBOL in college, and found a job programming a hospital Payroll system for an MAI Basic Four mini.

- It took the mini 4 *hours* to process 600 FTEs, slow by today's nano-standards, but far faster than the 4 ***days*** it took by hand!

A *Monster* Mini

- Florian still remembers how this screaming mini really rocked the DP world then with:
  - 8 *thousand* bytes of core memory, and
  - 1.1 *megabyte* floppy disks for storage!
- His first US hospital client was in Spokane, Washington in the early 80s, and they were running SMS' SHAS shared financial system.

- Next came Fountain Valley Hospital in CA that was running the early "Rubicon" LIS (some day, we'll have to cover these early ancillary systems in Lab & RX too), and wanted to expand and modernize it.
- Florian shifted his focus from financials to clinicals in one CPU cycle, and by 1981 had completed coding an entire new LIS!

Fountain Valley Regional
HOSPITAL & MEDICAL CENTER

Amazing Bargain…

- It's tough remembering 40 years back, but Florian thinks the total bill for writing the LIS was ≈$180K!

- He met his next client on a flight from Toronto to a retreat in Montreal: the CEO of Sacred Heart Medical Center in Spokane.

- Over dinner, Florian described a 600-bed Canadian client he was working for, the CEO joined Flori to visit them the next day, and was so impressed, he hired Florian to write software for his MAI Basic Four mini in 1983.

- With all this business in hand, Florian started his own company in 1984 in warmy, sunny Orange County, CA, appropriately named:

  - **American Financial Systems**

Sacred Heart Medical Center

The Name Game

- The name **AFS** didn't jive much with Healthcare, his prime market, so Florian switched it in 1986 to "**Integrated Hospital Solutions**," or I.H.S. for short.
- Sound familiar? Regular readers of this HIS-tory might remember that name from episode 58 on **Dairyland** (you can catch them all at *www.hispros.com*).
- Turns out to be the name of an IBM SYS 38-based HIS vendor in nearby La Jolla, CA., who took exception to use of their name, so Florian went back to the naming drawing board an this time came up with **Tri-Cord** Healthcare Information Systems. The name **Tri-Cord** lasted into the 90s, before Florian made his last name change
- Like all the name changes, **TriCord** next "RISC-ed" the switch to UNIX offering systems on DG AViiONs, HP9000s and IBM RS/6000s.

TriCord

- TriCord grew well, reaching 80+ clients and per this old LIS survey:

- Files were in ISAM at first, then switched to MS' SQL.

- In the 90s, TriCord made the switch to Windows PCs, using a Providex translator.

Product name, date of last upgrade	Total number of installations	Price range	Hardware Requirements	Functions	Outstanding features
System Analysis Corporation (Continued from previous page) 10 Laurel Ave., Wellesley, MA 02181, (617) 237-9500, fax (617) 237-6932					
Clini-CAL Laboratory Information System Ver. 6.2, Jan. 1994	9	Call for price information	DEC VAX	Instrument interfaces, HIS interfaces, worklists, QC, modules for all lab departments	User-defined screen and report formats, confidentiality of sensitive test results, e.g.: HIV.
Sysware Consulting 24050 Scott Dr., Farmington Hills, MI 48336-3076, (810) 476-2606, fax (810) 476-0399 InfoCard #190					
January 1994 Sysware LIS 5.0 June 1994	8	$9,830 (LIS, PC, printer, modem) to $200,000+	IBM PC compatibles, Novell LAN	LIS, billing, QC, collection, microbiology, cytology, anatomic pathology, barcodes, remote printing, standing order, reflex, stat	Standardized user interface, menu-driven, easy to use. UNIX and bi-directional interfaces to over 200 analyzers, no data entry for billing.
TeleVend, Inc. 111 Croydon Rd., Baltimore, MD 21212, (410) 532-7517, fax (410) 532-7818 InfoCard #189					
MED-LAB Ver. 5.3 April 1994	44	$995 to $1,995 depending on options	IBM PC compatible and Novell	Accounts receivable, creates insurance forms, cytology and pathology with patient history	Interface available to instruments. The program is set up to collect those small fees that are not covered by insurance.
Tri-Cord Healthcare Information Systems 22936 Mill Creek Rd., Ste. B, Laguna Hills, CA 92653, (800) 350-3696, fax (714) 581-6736 InfoCard #188					
Spirit 2000 Laboratory Information System	4	$20,000+	Minimum: 16MB RAM, 1.0 GB disk space	ADT, order entry, receiving, resulting, workload, remote print/fax, interfaces, etc., for laboratory, cytology and pathology	UNIX-based, source code provided, table-driven, auto-archiving and desearching to optical, barcoding and bidirectional interfaces.
Western Star 4000 Kruse Way Pl., Lake Oswego, OR 97035, (503) 697-3000, fax (503) 697-1792 InfoCard #187					
LifeLine Blood Bank Data Management System	250	$20,000 to $150,000	486, IBM compatible	Online unit inventory, user-defined entry system, complete unit, donor and patient lookback, donor registration and recruitment modules	Client/server technology, advanced hardware fault tolerance, zero scheduled down time, online concurrent tape backup.

What Goes Up...

- TriCord did well, but Florian chose some poor capital partners who both bled the firm dry.

- Undaunted, Florian started over again, this time under the name **Sphere** Healthcare Information Systems, which name stuck.

SPIRIT ENTERPRISE
Invest in Your Future

SPHERE
Health Systems

ADT/MASTER PATIENT INDEX

- **Sphere** grew steadily, gradually offering a complete set of hospital financials: both Patient Accounting ("RCM" for moderns) and general accounting ("ERP").

- *If your hospital is in a search for a financial system, invite Florian in for a demo – anything he doesn't have in his system, he'll program for you while he's there!*

Search for a Clinical partner

- Although he added a basic Order Entry system, Florian knew he needed a solid capital partner once more, as well as a robust clinical partner to offer a full E.H.R.

- He first started talking with **Opus**, a small start-up TX firm with a red hot E.H.R. that we'll cover in depth in next week's episode.

- He also spoke with a VP named Rossiter at **NextGen,** the giant in the ambulatory market eager to get into the hospital market next.

- Ironically, just as Florian was consummating his deal with **NextGen** to give Sphere a solid capital partner, he introduced them to **Opus**, his potential clinical partner and the rest, as they say, is HIS-tory!

SPHERE
Health Systems

SPIRIT ENTERPRISE
Invest in Your Future
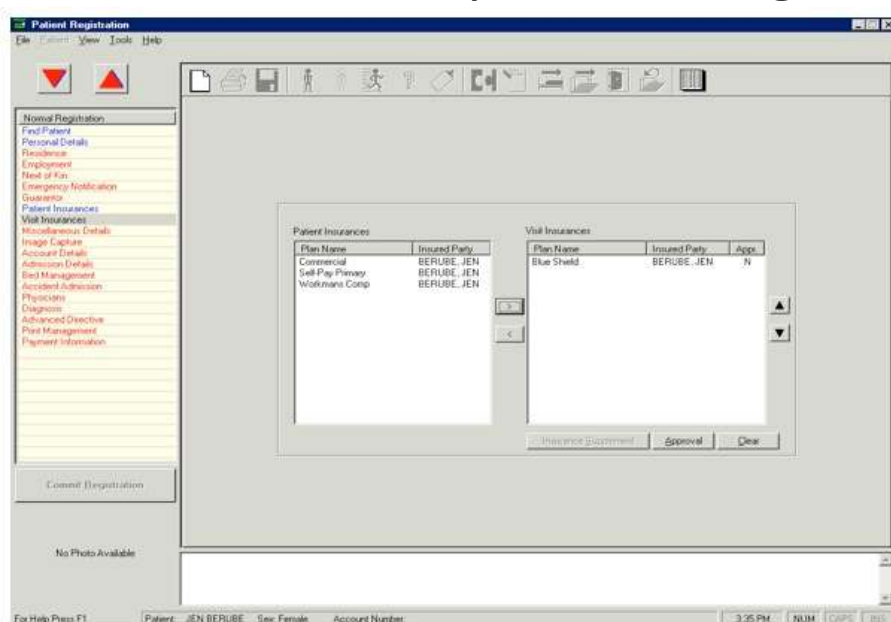
SPHERE
Health Systems

Sphere Health Systems is a software developer providing comprehensive information systems and services to healthcare facilities in the United States, Canada, the United Kingdom and the Caribbean for over 25 years.

A COMPANY COMMITTED TO QUALITY, VALUE, AND SERVICE

A leader in the field of information management, Sphere Health System's mission is to provide quality systems, support, and value to our healthcare clients. Our actions in support of your needs are driven by our Value Proposition:

- Investment Protection
- Feature-rich, easy to use system
- Full range of products and services

Sphere Health Systems leverages over 25 years of hospital-focused healthcare experience with the latest in industry standard technology and development standards.

- Turn-Key HIS Systems
- Fully integrated financial and clinical applications
- Integration Services
- Training, Implementation and Consulting Services
- Financing/leasing options
- 3rd party Hardware and software
- And more . . .

A SYSTEM TAILORED TO YOUR REQUIREMENTS

Spirit Enterprise is a comprehensive healthcare information system with financial, patient care, and marketing components sharing a common patient database with a community based Master Patient Index (MPI). One system can service multiple facilities including acute care, long term care, clinics, psychiatric, and physician offices. Its Windows 2003 open systems network architecture and table driven design provide the flexibility to meet specific operational needs and hardware requirements. *Spirit Enterprise's* fully integrated applications include:

Enterprise Master Patient Index	Clinical Coder/Grouper Interface	Radiology
Patient/Resource Scheduling	Charting*	Laboratory Information System*
Admit, Discharge, Transfer	Order Entry/Results Reporting	Patient Care/Management
Medical Records	Accounts Payable	Pharmacy*
Financial Management	General Ledger and Budgeting	Ancillary Services
Patient Accounting	Fixed Assets	Security Administration
Scheduling*	Materials Management	Physician Access
Intake Costing and Inquiry	HR/Payroll Management	Electronic Medical Record (EMR)*

AN INVESTMENT IN YOUR FUTURE

Sphere Health Systems provides full turnkey installation, implementation, training services and 24/7 assistance. Our award winning Customer Service Team works zealously with our clients to ensure that *Spirit Enterprise* meets their current and future requirements.

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- So that's how **NextGen's** financial system evolved over four decades, like QSI.

- Many thanks to <u>Florian Weiland</u> for this fascinating story, and digging up these old files while he's on vacation in the Caymans!

- Next week we'll cover the story of <u>Tim Rhoads</u> & <u>Fred Beck's</u> **Opus,** their hospital EMR, and then finally Rick Opry's **IntraNexus**, the final leg in **NextGen's** HIS stool.

H.I.S.-tory by Vince Ciotti

Episode #81: NextGen Part 3

QSI's next "Opus"

HIS-tory of NextGen

| 1973 | 1980 | 1984 1985 | 1987 | 1993 1994 | 1996 1997 | 2009 2010 |

American Financial Systems

-> I.H.S. -> Tri-Cord HIS   -> Sphere

Quality Systems Inc   IPO   Acquires CliniTec & MicroMed   -> NextGen   Acquires Sphere, Opus & I

CliniTec

MicroMed
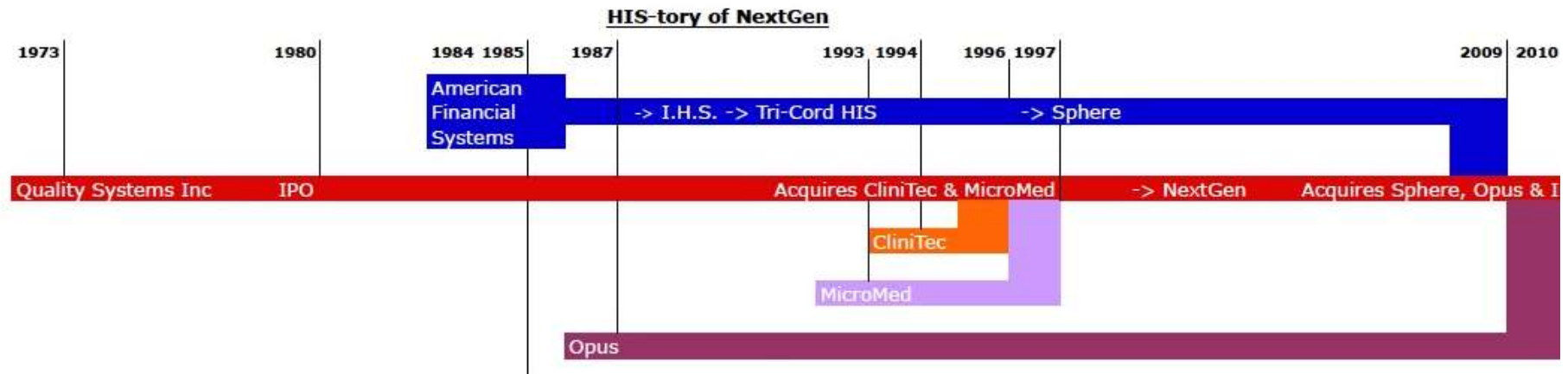
Opus

Magnum Opus

- If you classic music lovers will forgive the pun, NextGen's "Magnus **Opus**" in hospital EMRs started out many moons ago as an LIS vendor!

- Sound familiar? Can you think of two other leading HIS vendors today who started in LIS?? (find one in episode #16 at *hispros.com*)

  - **Opus** was formed by 2 HIS entrepreneurs back in 1987, with extensive experience:
    - <u>Tim Rhoads</u>, pictured on the left, and
    - <u>Fred Beck</u>, portrayed on the right.

- Tim Rhoads early career included employment at hospitals in Texas and Colorado, including respected facilities such as <u>Texas Children's Hospital</u> where he gained first-hand knowledge of patient care and internal hospital operations. In the early 80's he left hospitals for the vendor world, working at several HIS software firms.

The Early Days

- Tim and Fred built their LIS on the very latest architecture, using open-source approaches, being web-based with a SQL data base.

- They quickly learned just how tough the LIS market was, with such dominant niche players like Sunquest and Soft, as well as HIS vendors with strong Lab offerings like Cerner, Meditech and SMS.

- So they started expanding beyond the Lab market for better opportunities in the more generic clinical system space.

Big Break

- **Opus**' big break came in the late 90s when they got on the radar screen of a hospital chain headquartered in SMS' old stomping grounds in King of Prussia, PA: <u>**Universal Health Services**</u> ,founded by Alan Miller, CEO, (on left) and Sid Miller, CFO (unrelated).

- In case their names sound familiar to any old SMS vets out there, Alan & Sid also formed **American Medicorps, Inc**, (AAM), the chain that first put **SMS**' name on the map in scores of for-profit hospitals in FL, TX and CA way back in the early 70s. **AAM** got bought by Humana in the late 70s, when Alan formed **UHS**.

- Just like **HMS** got its big start in HIS through deals with several chains in Nashville, Opus got hired in 1997 by **UHS** to build a custom, web-based Clinical Information System, a radical idea back then before anyone had their heads up in that "***cloud***"…

Creative Partnerships

- The pilot nurse station at the pilot hospital in 1998 went so well, that **UHS** then implemented **Opus** at its 20+ hospitals in 8 states:
  - SC, GA, TX, NV, OK, FL, WA, PA, and D.C.

- Just like AAM helped put **SMS** on the HIS map and several Nashville chains gave **HMS** a nationwide presence, **UHS** was the perfect partner to give **Opus** a toehold in the *national* HIS market.

- To complete their HIS offering, they first tried to partner with a financial system vendor from St. Louis known as **Creative Healthcare Systems, Inc**., whose "MedGenix" software was running in a number of hospital clients.

Full Clinical Suite

- **Opus** got on *our* radar map in the mid 2000s when they started selling their E.H.R. to non-UHS hospitals at our HIS Buyers Seminar (on right).

- By then, their HIS offerings had grown to encompass the whole suite of clinical applications & modules:

ClinDoc - clinical documentation for point-of-care and e-charting

OpusMACC - a medication administration checking

OpusOM - order management, results, charges, work orders, etc.

OpusCDR - their clinical data repository

OpusMD - for physician diagnosis and treatment

OpusMobility – runs the system on smart phones and PDAs

OpusLab the original LIS, and OpusAP for anatomic pathology

Perfect Timing!

- Around 2010, **Opus** started talking to Florian Weiland at **Sphere** as a better partner for financials; Florian introduced them to **NextGen** who was eager to add a hospital E.H.R. to their ambulatory one.

- In February 2010, NextGen acquired **Opus**, right after Florian's **Sphere**.

- Ironically, later in 2010, **UHS** announced it would be moving its 20+ hospitals off of the **Opus** E.H.R. and on to Cerner's Millennium, perfect timing in light of **NextGen's** deep capital reserves making **Opus** no longer dependent on a single client's prestige & revenue stream!

Next Week…

- So that's how **NextGen's** total HIS system was acquired from several smaller HIS vendors.

- Many thanks again to Florian Weiland for these inside scoops, especially while he was on vacation!

- Next week we'll cover the story of Rick Opry's **IntraNexus**, the final leg in **NextGen's** current HIS platform, that also has fascinating ties to **SMS** and another early HIS pioneer…
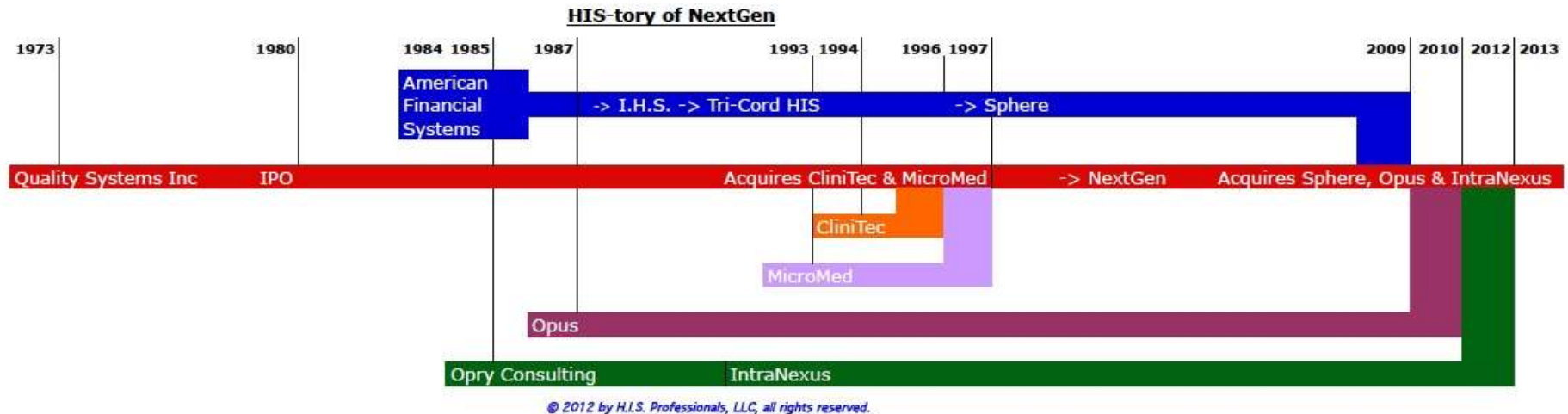
Final Episode of NextGen

- Probably not the end of their acquisitions, but the last part in our saga of where their present-day HIS product offerings came from.

- This story goes way back in the late 70s, when minicomputer HIS systems started challenging the dominant shared systems like SMS, McAuto & Tymshare. In Oakland, CA, an ex-IBM sales rep named Tom Culligan started his mini firm: **Computer Synergy,** whose HIS ran on DEC's line of "VAX" minicomputers, easily the 2nd most popular box after **IBM's** System 34, 36 and 38.

- Like leading competitors **Dynamic Control**, **Meditech**, **HBO**, etc., **Computer Synergy** gradually developed a complete HIS, with all core financial and clinical systems, at a price that competed well in terms of TCO with then-dominant shared systems like SMS & McAuto.

If you can't beat 'em...

Per this table from one of Sheldon Dorenfest's early "Guides," **Computer Synergy** was growing rapidly when it caught the eye of **SMS**, who had already entered the mini market with their **ACTIon** line that ran on both Four Phase & DEC VAX boxes.

DIRECT SALES OF COMPANIES WITH TOTAL SALES OVER $10 MILLION IN 1984 AFTER MERGERS

($ in Millions)

Vendor Name	1980 $ in Millions	1980 Share of Market	1983 $ in Millions	1983 Share of Market	1984 $ in Millions	1984 Share of Market
IBM	312.0	29.7%	568.0	30.7%	700.0	31.1%
SMS	100.0	9.5%	200.0	10.8%	251.0	11.2%
McAuto	95.0	9.0%	165.0	8.9%	185.0	8.2%
HBO & Company	29.0	2.7%	67.0	3.6%	142.0	6.3%
Baxter Travenol	0.8	0.1%	10.0	0.5%	75.0	3.3%
Burroughs Corporation	50.0	4.7%	65.0	3.5%	74.0	3.3%
NCR	55.0	5.2%	60.0	3.2%	65.0	2.9%
Technicon Data Systems Corp.	31.0	3.0%	46.0	2.5%	53.0	2.4%
Sperry Univac	33.0	3.1%	35.0	1.9%	37.0	1.6%
Honeywell Information Systems	32.0	3.0%	35.0	1.9%	36.0	1.6%
Digital Equipment Corporation	30.0	2.9%	30.0	1.6%	35.0	1.6%
Systems Associates, Inc.	6.0	0.6%	20.0	1.1%	31.0	1.4%
Control Data Corporation	10.0	0.9%	25.0	1.4%	30.0	1.3%
American Medical International	3.0	0.3%	17.0	0.9%	24.0	1.1%
Pentamation Enterprises Inc./HDCV	11.2	1.1%	17.3	1.0%	20.0	0.9%
Electronic Data Systems	3.0	0.3%	17.0	0.9%	15.0	0.7%
Community Health Computing	8.0	0.8%	17.0	0.9%	15.0	0.7%
Data General Corporation	8.0	0.8%	15.0	0.8%	15.0	0.7%
Hewlett Packard	7.0	0.7%	8.0	0.4%	15.0	0.7%
Medical Information Technology Inc.	5.0	0.5%	11.0	0.7%	15.0	0.7%
Health Information Systems, Inc.	1.0	0.0%	8.0	0.4%	14.0	0.6%
CPHA	5.0	0.5%	12.0	0.6%	14.0	0.6%
GE Information Services	6.0	0.6%	9.0	0.5%	11.0	0.5%
Keane Inc.	5.0	0.5%	9.0	0.5%	11.0	0.5%
Nadacom	7.0	0.7%	10.0	0.5%	70	0.3%
Tandem Computers	10.0	0.9%	5.0	0.3%	6.0	0.2%
Four Phase Systems Inc.	2.0	0.2%	2.0	0.1%	2.0	0.1%
Mediflex	0.0	0.0%	24.0	1.3%	–	
Amherst	4.0	0.4%	17.0	0.9%	–	
Compucare	7.0	0.7%	40.0	2.2%	–	
Computer Synergy	2.0	0.2%	7.0	0.4%	–	
TOTAL	878.0	83.6%	1571.3	84.9%	1898.0	84.4%
TOTAL MARKET (without consulting)	1050.0	100.0%	1850.0	100.0%	2250.0	100.0%

That's the Spirit!

Having started it's "ACTIon" line through a marketing agreement for **HBO's** pioneering MedPro, **SMS** was no stranger to acquisitions and in 1985, they struck a deal with Tom to acquire his firm. **SMS'** marketing department came up with the name "Spirit," as shown in this ad from 1987. Under the covers, Spirit was actually comprised of **SMS'** own DEC ACTIon clinicals "front-ending" **Computer Synergy**'s financials...

An Odd Couple…

Initially, **SMS**' superb sales team sold Spirit (also known as "The Spirit Choice") very well as usual. However, the two systems were very different in appearance and architecture, as early clients learned to their chagrin… So after a few years, **SMS** reverted to the original all-Synergy product, with another superb name: **Allegra**!

Y2K "Apocalypse"

- Over the next decade, from 1988 to 1998, **SMS** almost 200 hospitals on the **Allegra** mini system, until an event on the horizon raised fears throughout the IT world in the 90s: Y2K! Hard to remember back then how all of we IT "experts" feared the collapse of our e-world…

- It is so comforting to realize today that we have become so much smarter: there is just no way our modern, enlightened society would ever give any credence to such scare stories about the end of the world due to inexplicable occurrences…

- In the HIS world of the late '90s, vendors faced the daunting of re-writing *millions* of lines of code to expand any MM/DD/**YY** dates to be MM/DD/**YYYY**, and programs could read the 2 extra digits...

Too Many Products…

- Like many vendors back then, **SMS** had too many products to fit in the lifeboat:
    - <u>Independence</u> – inhouse mainframe
    - <u>Exact</u> – an ACTIon front-end to their shared financial system
    - <u>Signature</u> - a physician billing systems for reg., sched. & 1500s
    - <u>MedSeries</u> 4 – an IBM mini system they had acquired from GTE
- Indeed, this last system was the challenge in that being IBM-based, it sold *better* than **Allegra** and they were direct competitors!?
- So, **SMS** did what any company would do in such a situation, it made a tough but correct *business* decision, and notified clients of **Allegra** that it would no longer be supported after Y2K, and proceeded to sell them on one of their many other products…
- *Aren't we lucky none of **today's** vendors have too many products to support with threats like ICD-10 looming on the **Horizon**…*

To The Rescue!

- One of **SMS**' **Allegra** clients was <u>Virginia Beach General Hospital</u>, that had a user department head named Rick Opry who had mastered Computer Synergy so well that he left and formed his own computer company in 92:

- <u>Opry</u> Consulting, which picked up so many **Allegra** clients (about 75 all told), he started writing a series of new "Sapphire" web-based apps for them programmed in modern Ruby & Java.

- In 2001, Rick formally purchased rights to the **Allegra** software from **SMS**, and re-named his company: **"IntraNexus"** which grew to over 100 employees based in Rick's home town of Virginia Beach.

- Besides core Sapphire apps, **IntraNexus** had many partners for ancillary systems: **MetaHealth**'s HIM, **ORMED** ERP, **SCC** for LIS, etc.

The Next Acquisition

- **IntraNexus** tried for about 10 years to break into the big time, but had a hard time finding the right niche in the HIS nexus. Here's Rick & his sales team at our HIS Buyers Seminars in Vegas:

- And then, voila!

"**VIRGINIA BEACH, VA --- *April 1*, 2011 --- Quality Systems Inc. (NasdaqGS: QSII) entered into an asset purchase agreement to acquire IntraNexus, Inc. for $4.9 million on April 1, 2011. The purchase price consisted of cash consideration of $3.3 million plus additional contingent consideration to be made over a three year period, not to exceed $1.7 million.**"

The "*Last*Gen!?"

- So there you have it, the full HIS-tory of where NextGen got their complete product line, acquisition by acquisition by acquisition…

- The next episode promises to be a breath of fresh air as we delve into the origins of today's leading vendor in terms of longevity (both of the firm & leadership) and market share: **Meditech**!,

  that never acquired a *single* total HIS competitor in its 40+ years!

- With over 2,000 hospital clients world-wide, this will be a fascinating story, delving into the HIS-tory of all 3 core products: Magic, Client/Server, and Release 6:

- Indeed, **Meditech's** story is so deep & fascinating, I'm asking any old Boston vets out there to share their inside stories/pics at: vciotti@hispros.com

- And if you're a *really* old HIS veteran who prefers a live human voice to a keyboard, feel free to call me any time at: 505/466-4958

H.I.S.-tory by Vince Ciotti

Episode #83: Meditech Part 1

7th of *Today's* Leading HIS Vendors

- This week we continue the HIS-tory of **today's** vendors with **Meditech**, whose 2011 annual revenue places them in the middle of the pack:

  1. $3.2B = <u>McKesson</u>, née HBOC = Walt Huff, Bruce Barrington, & David Owens
  2. $2.2B = <u>Cerner</u>, *still* run by Neal Patterson, co-founded with Cliff Illig
  3. $1.7B (est) = <u>Siemens</u>, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde
  4. $1.4B = <u>Allscripts</u>, née Eclipsys, also founded by Harvey Wilson of SMS.
  5. $1.2B = <u>Epic</u>. Gee, I have to wonder, just **who** was it who founded them?
  6. $900M (est) - <u>GE Healthcare</u>, née IDX/PHAMIS: created by Malcolm Gleser
  7. $545M = <u>Meditech</u>, *still* run after all these years by Antonino Papallardo
  8. $353M = <u>NextGen</u>: née Quality Systems Inc. founded by Sheldon Razin
  9. $174M = <u>CPSI</u>, founded by M. Kenny Muscat & Denny P. Wilkins **(who??)**
  10. $170M = <u>QuadraMed</u>, née Compucare, founded by Sheldon Dorenfest
  11. $160M = <u>Keane</u>, parent giant by John Keane, but HIS div. built by Ray Paris
  12. $110M = **HMS** (Healthcare Management Systems), Tom Givens & John Doss
  13. $70M (est) = Healthland, formerly Dairyland, founded by Steve Klick

44 Years Ago!

- It's hard to remember what life was like back in 1969, the year **Meditech** was founded. To give you (relatively) young CIOs some idea, here's a few of the salient events of that year:

 <- July 20th, Another **Neil** on the moon

August 8, Manson visits Sharon Tate ->

 <- August 15, Woodstock mud festival

September 5, My Lai massacre ->

 <- November 3, "Silent Majority" speech

Nude scene from "Oh Calcutta" ->

 <- October, I join **Shared Medical Systems**

Neil Pappalardo forms **Meditech** ->
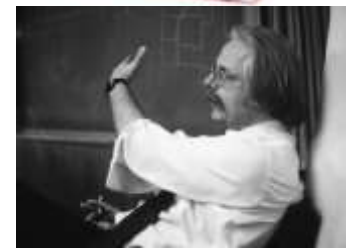
So What's The Big Deal?

- You ask: "So what if **Meditech** is 44 years old?" Well, only a few other HIS vendors go back that far, but *none* have survived being acquired, and with the same (very!) senior management team.

- To get this point visually, check out the chart below that shows the timeline for all 13 of today's leading HIS vendors, showing the year they were founded and major changes in ownership/name.

- Only 1 vendor has lasted so long under the same name: **Meditech**

HIS-tory Timeline of Today's Leading Vendors

1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

Founder	Later names
HBO	HBOC → McKesson
Cerner	
SMS	Siemens
Lockheed	Technicon → TDS → Revlon → AllTell → Eclipsys → Allscripts
Epic	
IDS	IDX → GE
Meditech	
Quality Systems Inc	-> NextGen
CPSI	
Compucare	IBAX → Compucare → QuadraMed
KeaMed	Keane HSD → Caritor → NTT
HMS	
Dairyland	Healthland

More Perspective on Meditech

- I spent so much time building this silly chart that I have to make a few more observations from it putting **Meditech** into perspective:
  - Only 4 other of today's 13 leading HIS vendors have *never* been merged or acquired: **Cerner**, **Epic**, **CPSI** and **HMS**
  - Two other vendors were formed in 1969: **SMS** & **Compucare**
  - Only one other predates these 1969 graduates: <u>Lockheed's MIS</u>, although it changed hands *six* times before **Allscripts**…

HIS-tory Timeline of Today's Leading Vendors

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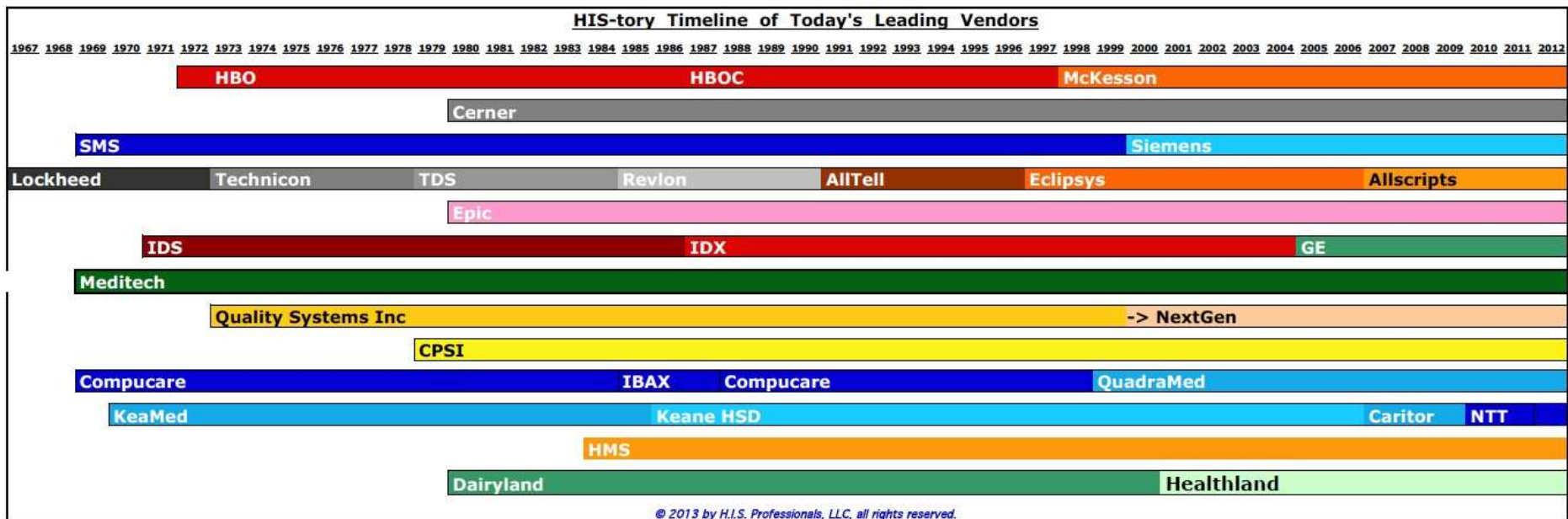
Amazing Financial Performance

- Had Neil chosen to go public, it's hard to imagine how many gazillion he & **Meditech's** employee stockholders would be worth today. I could only find published records for **Meditech** starting in 1983, but look at the growth to today's over ½ *Billion* in revenue:

30 Year HIS-tory of Meditech's Annual Revenue
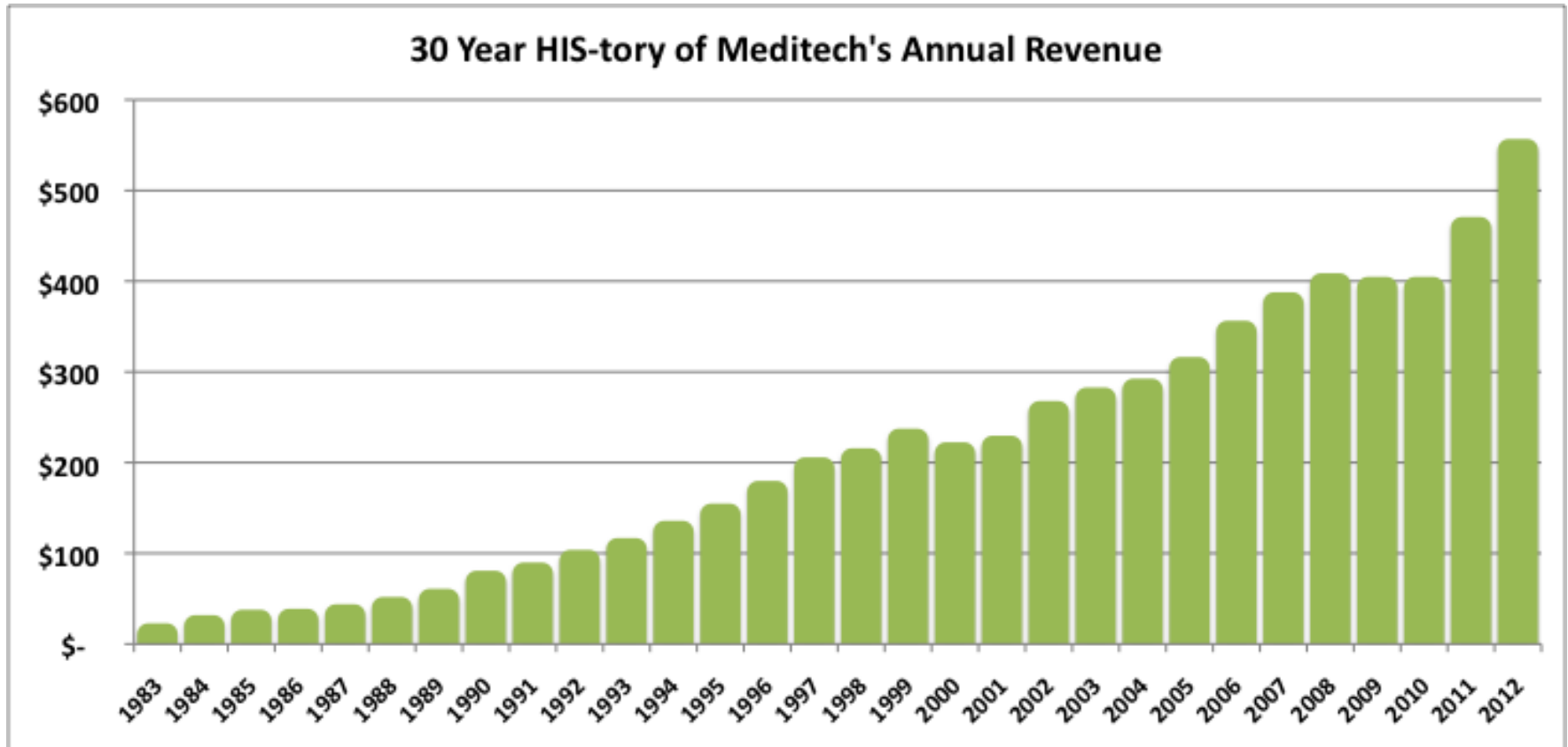
Huge Client Base

- **Meditech** claims over 2,300 clients, although this figure needs to be broken down into many sub-categories. Based on following them over the years, here's my best guess as to the breakdown:
  - ≈400 <u>International</u>: UK, Ireland, South Africa, Australia…
    - In Canada alone, they claim 40% of the hospital market!
  - ≈300 <u>*Partial*</u>: only a *few* **Meditech** applications, e.g.: LIS
    - They are a *major* Lab player, e.g., UCLA kept their **Meditech** LIS system rather than converting to Epic's "Beaker"
  - ≈200 <u>HCA</u> – who run a highly customized set of *clinicals* only
    - HCA's RCM and ERP financial are inhouse self-developed
  - ≈<u>1,300 HIS</u> – US "total HIS" clients, on 3 different products:
    - ≈650 (down from ≈700) still running the old **Magic OS**
    - ≈450 (down from ≈500) running **"Client Server"**
    - ≈300 on ~~Focus~~, er, ~~Release 6.0~~, er, **Advanced Technology**…

Which Generation?

- So whenever you're talking about **Meditech**, it's important to specify *which* of their HIS systems you're talking about, as with so many vendors:

  - **McKesson** – Is it the new Paragon, recently sunset Horizon, or the aging Star or Series?

  - **Siemens** – Is it red hot Soarian (with the most R&D), or the aging Invision or Medseries4?

- And it's not just which *generation* of HIS you're talking about, it's which of vendor's many *products*, some good and some not:

  - **Cerner** – Is it their rocket-ship Millennium EMR, one of the few competitors to Epic in the IDN market, or inaptly-named ProFit?

  - **Allscripts** or **NextGen** – is it their industry leading Practice Management and Ambulatory EMRs, or far less dominant HIS?

  - **Healthland's** Classic or Centriq? **Keane's** PatCom or Optimum??

- The devil's in these details, which too many HIS pundits gloss over…

Next Episodes

- So we will next delve into the details of each of **Meditech's** 3 systems in turn, thanks to help from:

  – Bill O'Toole - If you're a regular reader of HIS-talk, you've seen a series of *excellent* articles on legal matters by Bill who spent decades working inside **Meditech** since 1981 before forming his **O'Toole Law Group** (781/934-7400) in nearby Duxbury, Mass. (wfo@otoolelawgroup.com).

- Also, Bill's dad, William F. O'Toole, who was the Pathologist at Cape Cod Hospital that became Meditech's first hospital client in 1971!

- I'm also eager to hear from any other **Meditech** devotees out there, so if you have any good (or bad...) Boston stories to tell, please call (505/466-958) or write (vciotti@hispros.com).

H.I.S.-tory by Vince Ciotti

Episode #84: Meditech Part 2

The *people* who built the behemoth

My Favorite Vendor CEO!

- So who founded this amazingly successful and long lived vendor? Easily one of the greatest HIS-tory heroes in my eyes. Why??

    1. He graduated from <u>MIT</u> in 1964 – I applied that very year and got *rejected*. And I was no dummy: I won a 4-year full scholarship to Temple U. in Philly, but MIT's standards were that much higher!

    2. He was the son of <u>Sicilian</u> immigrants; my grandparents came over on a boat in 1915; my Dad's the little 2-year-old in this photo:

    3. **Meditech's** founder shuns business suits, loves Bob Dylan and even wore an earring until he was about 40 years old – sound like the <u>hippie</u> garb Mr. HIStalk got me to wear at my 2011 HIMSS presentation?

    4. He shuns the <u>limelight</u>, the *opposite* of many CEOs from other HIS vendors…

1914 in Italy: Silvio 9, Mami 33, Gino 2, Evelina 7

(Antonino) Neil Pappalardo

- So how did he do it? His fascinating story starts back in the '60s:
  - Neil started was a native of frozen suburban Rochester, N.Y., like so many other early HIS vendor founders who had nothing else to do in those frozen northlands: Steve Klick of **Dairyland**, Frank Poggio of **HMDS**, and Judy whats-her-name of **Epic**…
  - Neil entered MIT in 1960, where he studied physics but graduated with a degree in electrical engineering. His first job in 1964 was at the Hospital Computer Project at Massachusetts General Hospital headed up by Dr. Octo Barnett, who had been recruited by Homer Warner (of IHC fame) and funded by BBN and the NIH.
  - Octo's team was programming a DEC PDP-1 with an impressive *16K* of 18 bit memory, and the ability to support an amazing 5 *simultaneous* users!

Dr. Octo Barnett's Students

In a pdf file you should Google, Octo describes a promising student:

"…one of the most imaginative and productive computer scientists it has been my privilege to know - Neil Pappalardo. I first knew Neil when he was a student of mine at MIT and did his senior thesis in my cardiovascular laboratory. He…joined me after graduation from MIT as Research Assistant. In about 1965-1966, Neil…tried to persuade me that we could develop a programming system that would support the development of **medical information systems** at MGH. For some months, I tried to discourage them from what I felt to be a radical and obviously unproductive activity - - after all, what competency and experience did a hospital-based group have…? Neil, however ignored my guidance, as was his usual habit, proceeded with the development of **MUMPS**, and in a few months, had a system that was exciting and promising."

Other Octo HIS Pioneers

Dr. Barnett's had several other HIS connections:

- **TSI** - Another of Octo's students was <u>Jerry Grossman</u>, who was CEO of New England Medical Center, and founder of **Transition Systems, Inc.** a leading EIS system, later acquired by **Eclipsys** (Allscripts today).

– You may remember an earlier episode on **GE's** early "Medinet" shared system (episode 13 at hispros.com). Here's Octo's take:

  • "At about this time... GE entered the business of time-sharing computer support for the hospital industry. This new **GE** subsidiary, known as Medinet, had very ambitious goals - simultaneously to develop time-sharing hardware, a new language and a complete set of hospital information applications. The company never had the opportunity to either succeed or fail, since after about six months **GE** decided to terminate all of its computer activities..."

Medinet/Meditech Connection…

- Episode 13A of this HIS-tory series told a fascinating tale that connects the **GE** Medinet timesharing project to today's **Meditech**

  - That episode recounts Jim Pesce's (current VP of **McKesson's** red-hot Paragon) story of his early days at **GE** Medinet back in 1969:

    - One of Jim's night-shift employees at **GE** was a youngster named Larry Polimeno, passed over for a supervisor job. Larry then quit to join some flaky start-up HIS firm…

Larry Polimeno, MEDITECH's first employee is hired at the end of the first month, later he becomes Vice Chairman.

- And what was the firm Larry joined? In 1968, Neil left MGH to launch his own firm after learning his wife was pregnant with their fourth child. Times were tough and Neil talked to many friends, family and potential donors to raise money, eventually finding some local venture investors. The day his 4th child (a girl) was born, he formed:

Management Stability

- Remember this chart below? It illustrates the amazing stability of Neil Pappalardo and Larry Polimeno as senior execs at **Meditech**.

- Only 2 other HIS vendors have had the same people leading their entire HIS-tory: **Cerner's** Neil Paterson and **Epic's** Judy Faulkner, although "only" for 30 years each (**SMS**' Jim Macaleer also had reigned for 30 years before the Siemens acquisition circa 1999)

- All other vendors have had a steady parade thru their C-Suites…

HIS-tory Timeline of Today's Leading Vendors
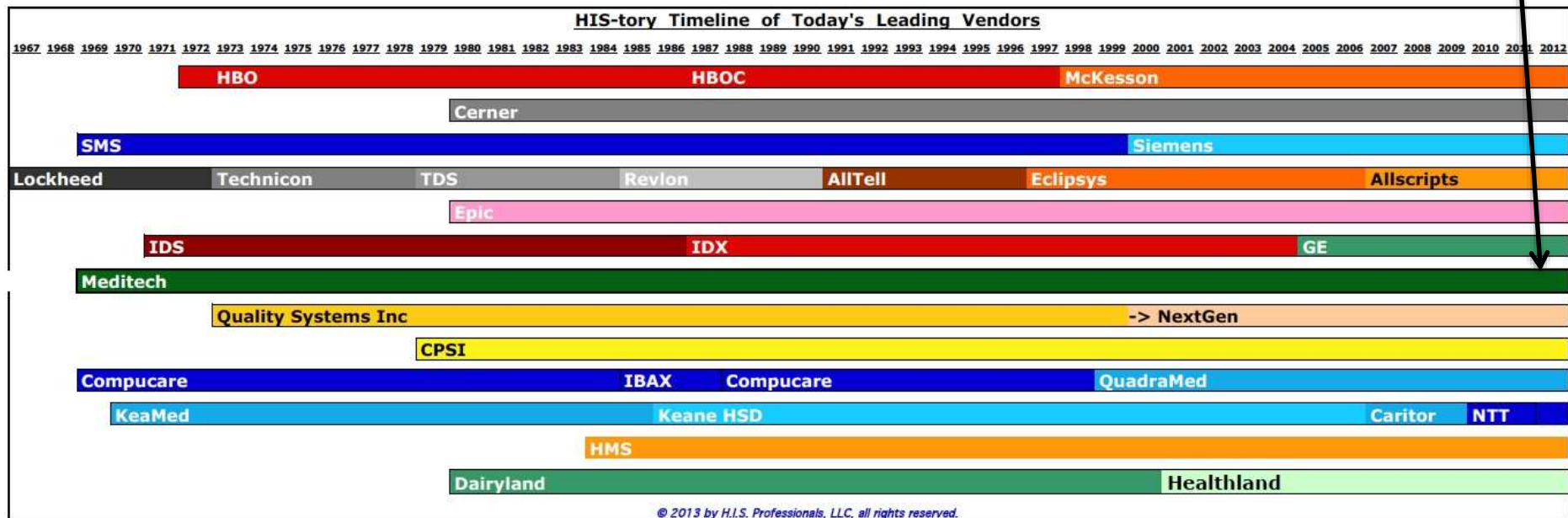
Other Meditech Execs

- In 1975, a young programmer named <u>Howard Messing</u> came from MIT. Fortunately, his work did ***not*** live up to his name, and he worked his way up the organization, promoted to VP of Implementation in 1984, and then CEO in 2010, when Neil hit 68.

- Here's their smiling C-Suite from the mid-1990s:

Bob Gale
Roberta Grigg
Barbara Manzollilo
Joanne Wood
Ed Pisinski
Howard Messing
Chris Anschuetz

By the mid-1990s, MEDITECH had a lot to smile about: over 1,000 employees, a steadily growing customer base, and a new, industry-standard, Client/Server platform. Celebrating their achievements are (from left) Client Services Vice President Joanne Wood, President and COO Howard Messing, Product Development Senior Vice President Bob Gale, International Senior Vice President Roberta Grigg (ret. 2001), Chief Financial Officer Barbara Manzolillo, System Technology Vice President Chris Anschuetz, and Sales and Marketing Senior Vice President Ed Pisinski (ret. 2005).

Other Meditech Mavens
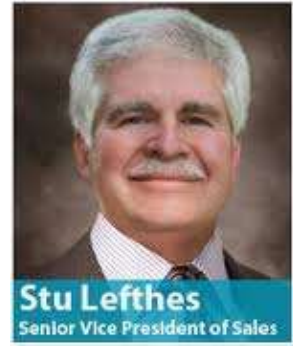
- Got to give credit to several other old friends from Meditech who have greatly impressed me over the years:

  - Stu Lefthes, VP of Sales, who left **McAuto** to join **Meditech** in 1982; big joke in St. Louis: "*Stu Left 'us!*"

    - Ken Jasper, Regional Sales Director in the northeast, who was stuck with our firm through dozens of our vendor-brutal "Non-RFP" system selection processes, and won his fair share of them while always remaining a gentleman (so rare in the HIT sales world!).

- Next Week: we delve into the early years of **Meditech's** development

  - An amazing array of *non-healthcare systems* in the early 70s!

  - LIS start at Cape Cod hospital that lasted for 40 full years...

  - Evolution from MUMPS to MIIS to Magic to NPR to C/S to 6.0

Stu Lefthes
Senior Vice President of Sales

H.I.S.-tory by Vince Ciotti

Episode #85: Meditech Part 3

The *products*: from MUMPS to 6.0

MUMPS
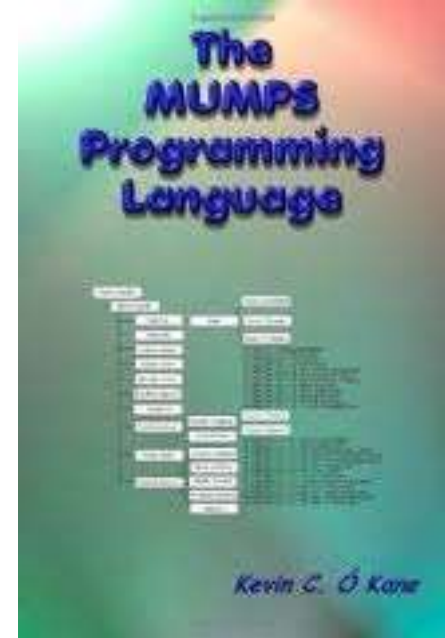
- You may remember leaving Dr. Octo Barnett's brilliant programming team in MIT's Lab of Computer Science using early DEC PDP minicomputers to develop one of the very first time-sharing systems.

- The software was "**MUMPS**," for **M**assachusetts General Hospital **U**tility **Mu**lti-**P**rogramming **S**ystem.

- True to form in the IT industry, MUMPS evolved over time with several iterations, with different names:

  "**M**" – pretty easy to figure that acronym out,

  "**MUMPS-11**" – for the DEC DPD-11 minicomputer,

  "**DSM**" - Digital (DEC) Standard Mumps, and

  "**ISM**" – Intersystems M

  "**MacMUMPS**" – a version for the Apple Mac OS.
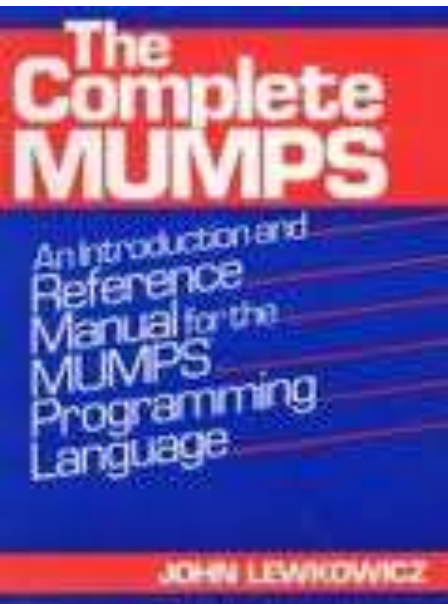
MIIS Offspring

- When Neil & Co. formed **Meditech** in August of 1969, they started with **MUMPS** as their programming language and wrote systems for a number of clients offered in a time-sharing basis, including:

  - Auto parts distribution, hotel chain reservation, international oil firm, a cola company the Hong Kong Telephone company!

  - Circa 1971, they renamed their variant of **MUMPS** as **MIIS**, short for "**MEDITECH** Interpretive Information System."

  - In 1973, their clients covered a wide array of industries including a <u>Court Case Tracking</u> and <u>Parole Reporting System</u> for the New York City Criminal Justice Department (might have been helpful had the Allscripts suit against NYCHHC lasted...)

  - MIIS also used to write **Meditech's** *first* product for the Healthcare industry, a propos considering Dr. Barnett's *L*CS...

Cape Cod Hospital

- Whose Pathologist elected to go with **Meditech** in 1970 to write a Lab system running via a teletype machine over a dial-up phone line via an acoustic coupler, time-sharing on a DEC PDP-15 running at the **Meditech** facility in nearby Cambridge.

- Who was this daring Doctor? The name "O'Toole" should ring a bell with long-term reader of HIS-talk, as his son, also named Bill,

is a regular contributor from his O'Toole Law Group (781/934-7400) in Duxbury, Massachusetts. **Cape Cod Hospital** eventually went inhouse on a DG Eclipse C330 minicomputer, adding a full array of LIS apps: microbiology, anatomic pathology and blood bank.

Pictured above, from left to right: Stephen J. Guimond, Treasurer, Cape Cod Hospital; John E. Kilroy, Director of Information Systems, Cape Cod Hospital; and William F. O'Toole, M.D., Cape Cod Hospital. O'Toole was responsible for the initial involvement with MEDITECH 20 years ago. At far left is one of the many color terminals supplied by MEDITECH.

It's Magic!

- Around 1979, Meditech announced the latest language: **Magic**, this one with no acronym. As the story goes, programmers were themselves amazed at how code was generated by virtue of the screen design in the era of '3GL' or 3rd generation programming languages of the late '70s. Programmers designed screens and when they were done, they hit "File" and the code to create the screen was generated automatically – *"like magic!"* Cute story…

- For sure, **Magic** sold that way, as **Meditech** expanded far beyond its original LIS roots to gradually add every app a total HIS needed:

  - 1970s = ADT, Pharmacy, Accounts Payable & General Ledger

  - 1980s = Billing & AR, Orders/Results, Case Mix, & Abstracting.

- In 1985 they introduced "**NPR**" – no, not *that* NPR, but Non-Process Reports, a **Magic** variant that generated reports much faster…

The New Thing…

- Hard to remember how the *client/server* concept rocked the IT industry back in the 90s as every new vendor/product jumped on the multi-tiered bandwagon that used powerful PCs as servers (instead of the old mainframes and minis), ODBC-compliant data bases like Oracle & Cache, and PCs with GUI front-ends (think Windows **95**), all connected via Local Area Networks like Novell.

- It was a bit of a stretch for **Meditech** to describe **Magic's** hard-wired CRTs as "C/S," so in 1994, Meditech released its "**Client/Server**" system, the quotes coming from their agreements where their attorneys probably wanted to carefully qualify what they meant by the term. Check this odd press release from Nov.

Meditech gets out of operating system business. Medical Information Technology, Inc. (Meditech), Westwood, Mass., is moving the company's Health Care Information System (HCIS) to a client/server platform. Meditech's HCIS can operate under Microsoft Windows NT, IBM OS/2 or Novell UNIX operating systems. A beta site for the new software is scheduled to be installed by next summer.

Did It *Sell*?

Well, I guess that answers that!

- Did Meditech's **"Client/Server"** sell? Just like like a… well, you get the picture.
- By 1999, Meditech announced its 100th **"Client/Server"** (C/S) system client!

- By that time, Meditech had about 700 US hospitals on its **Magic** NPR platform, plus hundreds of LIS-only (their original market remember), over a hundred *clinicals* only (viz: HCA/Columbia), plus 100+ international sites, but **C/S** grew rapidly as Meditech stressed it in all their new system sales.
- To their credit, they did *not* sunset **Magic**, and to this day, somewhere around 600 US hospitals *still* run it as their core HIS, hundreds having attested for Stage 1 MU.

Round Three

- Like so many HIS vendors (think McKesson's Paragon), **Meditech** rode the C/S wave throughout the late 90s and early 2000s, before Neil and Company came up with:

  – **Focus**, er… **Release 6.0**, err…

  – **Meditech's Advanced Technology** (**MAT**)

- Oh, whatever they call it… The point is it's new, it's better than **C/S** or **Magic**, and if you had any brains (or the money) you'd buy it!

- And that's just what hospitals have been doing, in droves, for the past several years. What's so much better about 6.0? Well, if **Magic** and **C/S** only go up to release 5.6, then **MAT** is .4 better or about 10% more, right?

- The point is, it's the latest & greatest, period.

MEDITECH introduces color, without the cost…

MEDITECH

3 Generations

Meditech Family Tree
LCS MUMPS MIIS Magic
"Client Server"
MAT
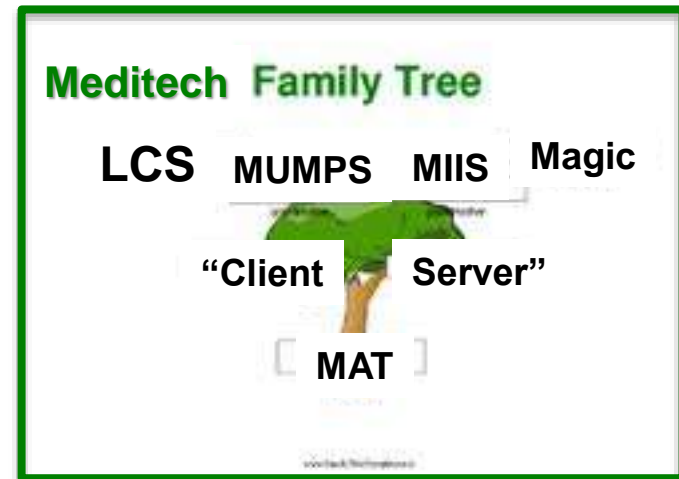
- So there you have it: how **Meditech's** 3 platforms evolved over their 40 year HIS-tory. Will be fun to see how they play out:
  - Will Magic & C/S ever get a release # higher than 5.9? ("Client/Server" is at release 5.6.4 already...)
  - What will they call it after MAT/Release 6.0 hits release 6.9?
- Ah well, maybe one of your readers will fill in the blanks by then...

Sometimes your survival depends on having the right partner.

MEDITECH

- Meanwhile, what's in store for next week? We'll be covering how Meditech achieved such amazing growth to where they are in 2,300 hospitals worldwide, and the primary HIS for about one out of five hospitals.
- Thanks much to several un-named sources for help with this week, who wished to be remain un-named. Any more volunteers??

H.I.S.-tory by Vince Ciotti

Episode #86: Meditech Part 4

40 Year of Meditech Growth
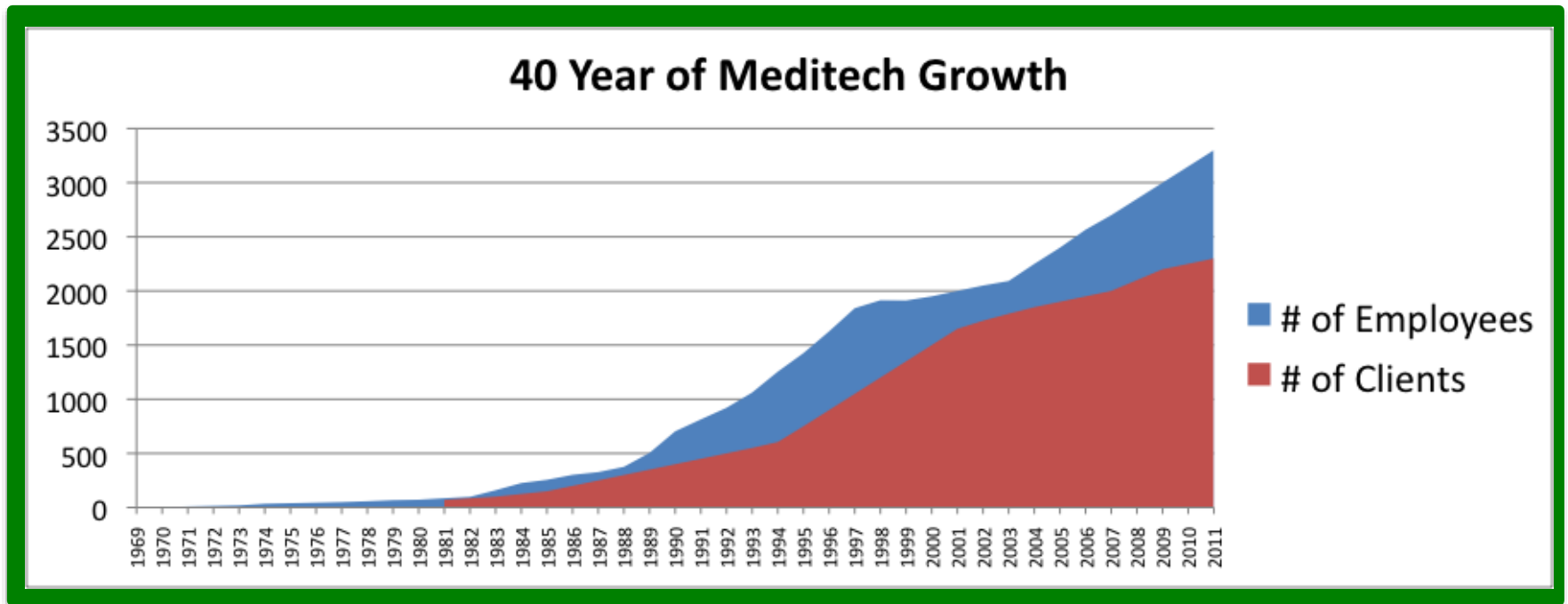
Amazing growth: from zero to 2-3K!

From a former "Med-techie"

- Got this fascinating email after last week's episode from **John Perez** (*john.f.perez@comcast.net*) an early **Meditech** veteran:

  "Have enjoyed the trips down memory lane you have presented on HISTalk over the last while. I was there back in the early 70's working with Neil, Kurt and Larry and went from there to a long stint at **Compucare***. I thought it interesting how many companies got launched by people I worked with at* **Meditech** *in those days:*

  - *Terry Ragon =* **Intersystems**

  - *Paul Egerman =* **IDX**

  - *Leon Paddel =* *Legal Data Systems* *– not an employee, but used the legal billing system Meditech developed for their law firm*

  - *Terry Weismann, my boss at* **Meditech** *left to start a company doing MIIS and application training for* **Meditech** *customers (forgot the name)."* Any readers remember the firm's name?

More From John Perez

- *"I joined Ron Aprahamian at **Compucare** in 1974 (Shelly Dorenfest was still CEO then) working behind Georgetown University Hospital in a Quonset hut. We recruited Nick Johnson, former **Meditech** programming manager and built, using MIIS, one of their first complete HIS products. Kristin Johnson who replaced Nick Johnson at **Meditech** left to co-found a library systems company (forgot the name – God I'm getting old) using MIIS.*

- *George Timson (whose 'version 0' of Fileman was invented at **Meditech** – I know I took over his apps when he left) went on to found the underground project at VA we now know as Vista and marketed commercially by **MedSphere**. I am sure there are other companies I am not aware of that got started by ex-**Meditech** employees.   I remember it as a very exciting place to work...you felt like anything was possible and you were encouraged to be creative."*

Credit to MIT

- Fascinating factoids! I responded to John that Meditech's predilection for hiring recent college grads might have led to it, as they looked around in their green naiveté and thought "I can do this!"

- John replied: "*I think a lot of the credit goes to MIT where we got most of our employees…MIT for sure breeds entrepreneurs.   I wish I had pictures from those days…I can tell you our hair was a LOT longer then and Neal had just gotten an earring to celebrate his 30th.*"

I think John is on to something: remember how in my original Meditech episode (#16 at *hispros.com*) I postulated that's where Neal got the company's official name: **M**edical **I**nformation **T**echnology. My guess is they were wary of using the official **MIT** acronym, so they dreamed up **M**ed-**I-T**ech!

Amazing Growth

This chart illustrates Meditech's amazing growth over the past 40 years:

40 Year Growth of Meditech
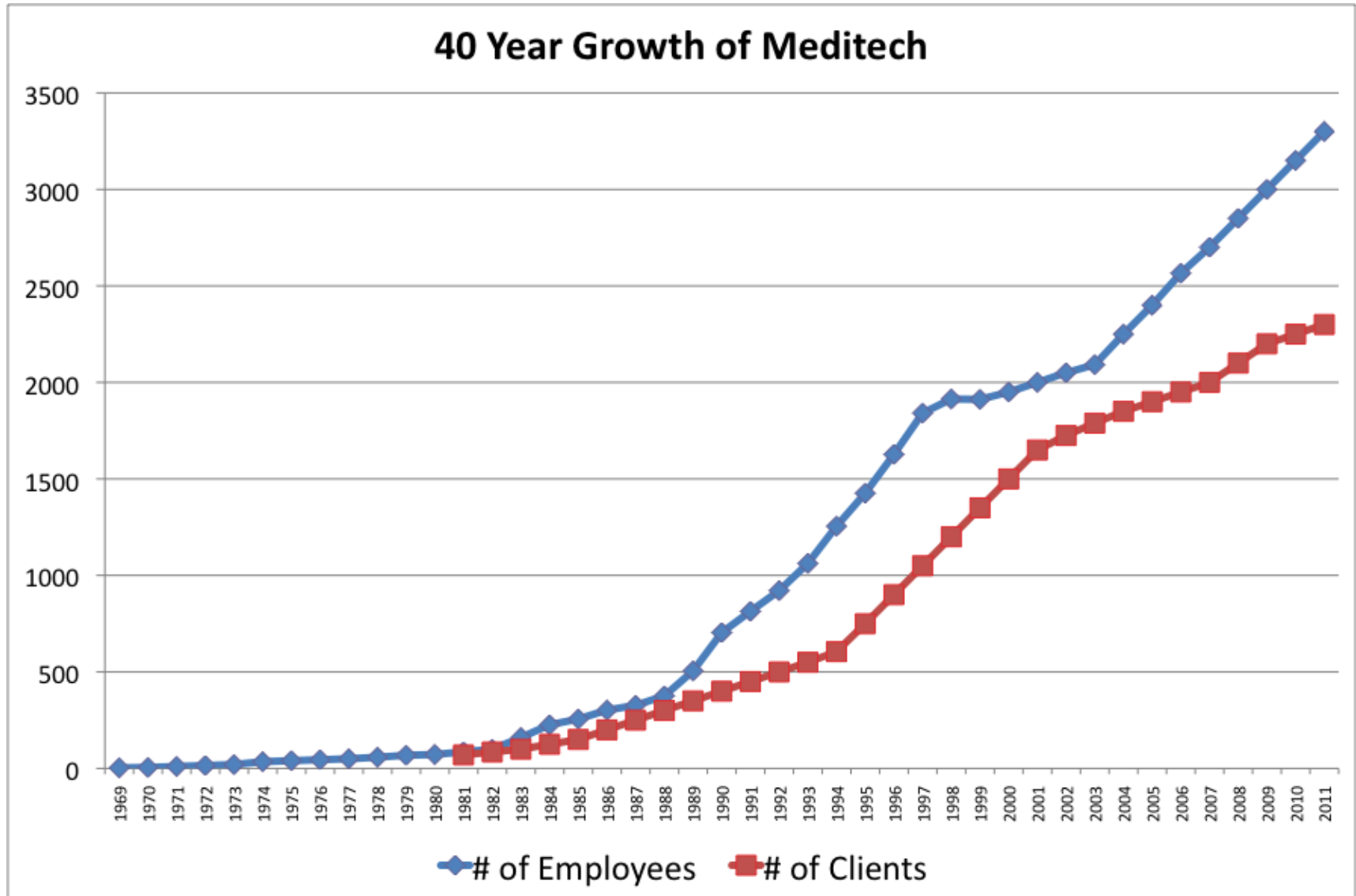
How Did They Do It?

- So just how did Meditech ride to the top in number of HIS clients? To help answer that question, we're going back 20 years ago to when we first evaluated Meditech in a system selection process at a 200-bed hospital in NY.

Sometimes your survival depends on having the right partner.

MEDITECH

- The story will not only explain why so many hospitals bought Meditech, but also shed light on system selection techniques that many hospitals could benefit from *today* as they go to market to replace legacy EMRs...

- It will also give us a fascinating overview of the HIS industry 20 years ago: who Meditech competed with back in the late 80s and 90s when their HIS first started to take off, and show how this Boston upstart was able to beat the HIS vendor giants of the time.

Brooks Memorial Hospital

- Not only was this hospital daring in choosing Meditech over giants like SMS and HBO, they were also daring (nuts?) in picking a consultant!

- Brooks CFO was <u>Ralph Webdale</u>, easily one of the nicest, smartest and *funniest* hospital execs I ever worked with in my 40+ years in HIT! Ralph heard about us from a neighboring hospital where we didn't screw up too badly and the rest as they say is HIS-tory...

- In 1993, Brooks was on the "SAINT" system from SAI, that had been bought several times (AMEX/FDC) and upgraded first to "Saint Plus" then "Saint Express." Ironically, this is the same system that 5 years later HBOC announced they were re-writing into a true "Client/Server" architecture that would be known as Paragon (*if* they ever finished it...)

Who Were the HIS Leaders in 1993?

- The first step in our system selection process was to issue an RFI (Request For Information) to leading vendors asking for data that will help narrow the search down to a handful of contenders:
  - Company financial reports, *NY* offices, # of clients & FTEs, etc.
  - Ball-park price quote for *affordable* capital & operating costs
  - A list of client hospitals that meet several important criteria:
    - 2-3 of our ***size*** (for Brooks' ≈200, from 100-300 beds)
    - 2-3 in our ***state*** for support (NY has tough state regs!)
    - 2-3 on our ***product*** (e.g., for SMS, on MS4, not Invision)
    - 3-5 with our key ***apps*** (Nursing, OR, RR, Lab, RX, PA & GA)
    - 1-2 with ***interfaces*** to key ancillary systems (eg: T & A)
    - Lastly, 1-2 hospitals converted ***from SAI*** (and still open!)
- The "usual suspects" we sent the RFI to, and their responses were those vendors with a strong presence in Brook's mid-range size:

Leading HIS Vendors 20 Years Ago

- Odd how quickly we've forgotten some of these early vendors:
  - **CHC** – Community Health Computing, a solid LIS/HIS from TX.
  - **Compucare** – Shelly Dorenfest & Ron Apprahamian's firm
  - **First Data Corp**. – who bought out Jack Weil's **SAI** from Amex.
  - **GTE** – IBM-mini-based monster who bought IHC's MedSeries
  - **HBO** – their story will take many episodes to tell their lineage!
  - **HCS** – Hospital Computer Systems from Wall, NJ, on IBM minis
  - **IBAX** – a triple acquisition monster: JS Data, DCC & PCS/ADS
  - **Keane** – Just finished their HIStory; today they're "NTT Data"
  - **Meditech** – a major LIS player, but relative upstart in HIS…
  - **SMS** – had just announced Invision; Allegra = their mini HIS
  - **SDS** – Source Data Systems, later bought by Ray Paris' Keane
- Stay tuned to see their responses to Brooks' RFI next week. I wonder who will remember *today's* HIS/EMR leaders in **2033**?

H.I.S.-tory by Vince Ciotti

Episode #87: Meditech Part 5
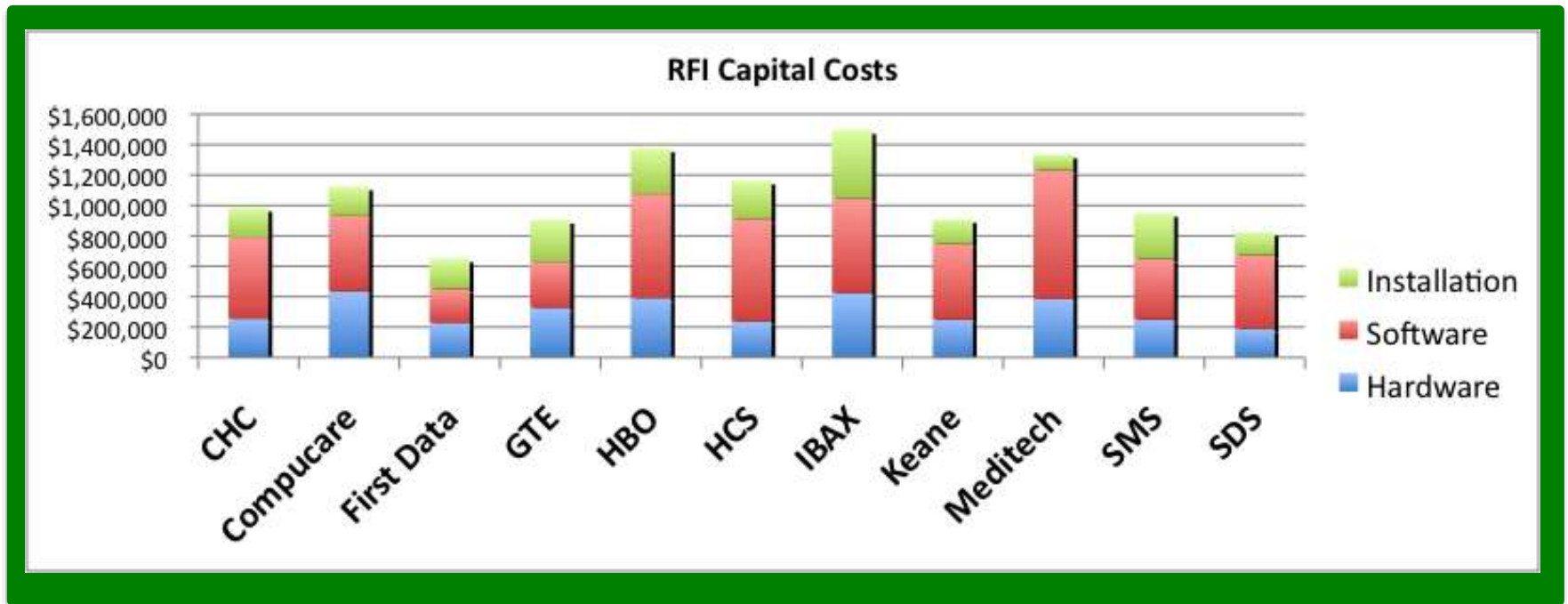
Which One Would *You* Buy in 1993?

Big Win From 20 Years Ago

- We left off last week with an RFI from <u>Brooks Memorial</u>, a 200-bed hospital in upstate NY, being issued to the 10 leading HIS vendors back in 1993 to see how **Meditech** beat them so often.

- Before we wasted our time & their money flying in demo teams to frozen Dunkirk NY (located near Anchorage…), we reviewed the RFI results to determine which of the vendors were:

  – Large & *stable* enough to last the expected 10 year life cycle

  – Had a strong *NY* state presence to meet regulatory needs

  – Were *affordable*, in terms of capital, operating and TCO

  – Had *clients* of our bed size, apps, interfaces & conversion

  The results are summarized in the table on the following page.

- If you don't recognize the acronyms for the vendors on the top row, then you didn't read last week's episode that described them! You can find all these past episodes at *hispros.com*

1993 Vendor RFI Responses

	CHC	Compu care	First Data	GTE	HBO	HCS	IBAX	Keane	Medi-tech	SMS	SDS
Years in HIS biz	21	20	25	18	18	25	12	20	25	25	15
Revenue in 000s	$43,400	$23,200	≈$200,000	≈$60,000	$280,000	≈$10,000	≈$50,000	$90,000	$92,300	$470,000	≈$14,000
# of FTEs	260	215	1,031	222	1,814	75	582	244	1,105	4,000	148
Nearest office	Texas	Virginia	N. Carolina	Phila.	Pitts.	New Jersey	Florida	New York	Mass.	New Jersey	Iowa
# of US clients	42	34	128	238	188	(Not provided)	≈200	15	104	54	85
NY state Clients	2	3	7	5	2	1	6	9	10	3	1
Hard-ware	HP, G30	DG Aviion 9500	DEC "Alpha"	IBM AS/400	DG Aviion 5240	IBM AS/400		DEC 5000	DG or DEC	DEC 4000/Alpha	
Capital Costs	$984,624	$1,124,604	$650,750	$904,991	$1,375,306	$1,162,938	$1,496,000	$909,800	$1,335,000	$950,000	$824,082
Opera-ting Cost	$131,516	$104,052	$86,268	$137,652	$126,325	$178,553	$125,880	$79,200	$148,200	$96,000	$77,765
5 year TCO	$1,642,205	$1,644,864	$1,082,090	$1,593,251	$2,006,931	$2,055,701	$2,125,400	$1,305,800	$2,076,000	$1,430,000	$1,212,906
10 Year TCO	$2,299,787	$2,165,124	$1,513,430	$2,281,511	$2,638,556	$2,948,464	$2,754,800	$1,701,800	$2,817,000	$1,910,000	$1,601,730

Winnowing the Field

- We presented these RFI results to our selection committee, with the caveats in red ink for those vendors with weak responses: small annual revenue, minimal NY presence, etc. **Meditech's** only issue was high capital costs, however CFO Ralph Webdale said he would gladly pay top dollar if they turned out to be the best system!

- So we next scheduled demos at Brooks for the 6 RFI "winners," making each vendor follow the same agenda (1-2 hours per user department) and grading each through a numeric checklist on:

  - User-friendly GUI (or not), patient search, reports, security, flexibility, report writer, etc.

  The checklists also helped to guide the committee into evaluating the *system*, rather than just liking the "demo dollie (or dude)" with the nicest personality, so totally irrelevant *after* the sale!

Brooks' Demo Results

- And here, 20 years later, are the results, which took a

few thousand keystrokes to update from MS Works 1.0 to Excel 2012!

Scored Demo Results — bar chart with categories: Perfect, CHC, FDC, HBO, MEDITECH, SMS, SDS, Average
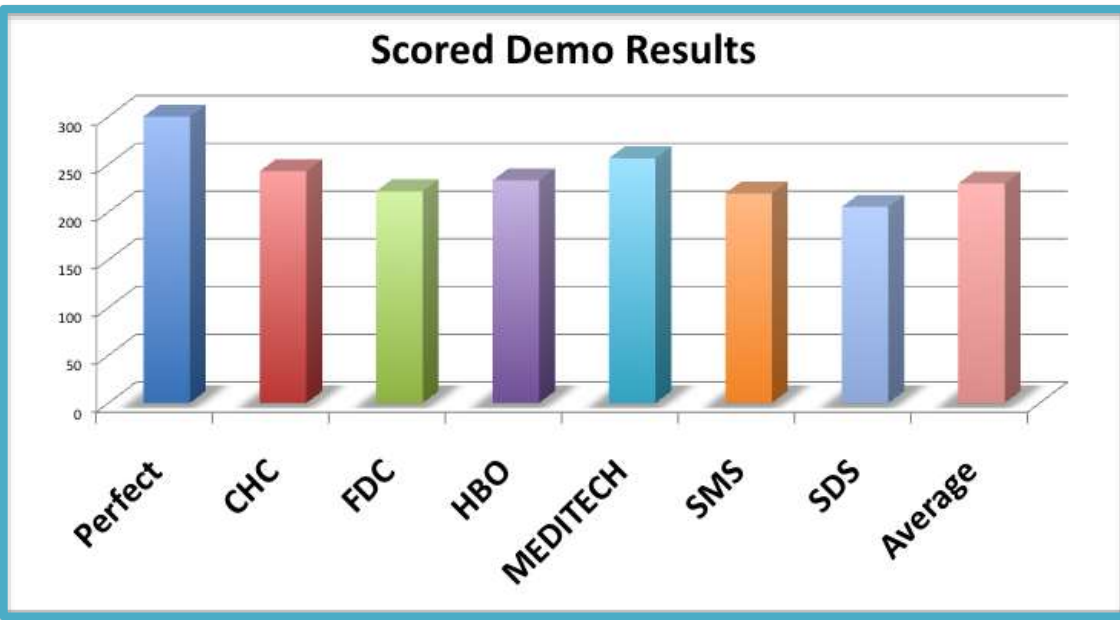
- As you can see, the highest score went to **Meditech**, but **HBO** and **CHC** did pretty well too.

- An no one really *stunk*, showing the committee that *all* modern systems beat their old SAINT…

- Next we made phone calls to the top 3 vendors, but a lot different approach than the near-perfect "98.5" scores KLAS comes up with:

  - Ours were *peer-to-peer*: RN to RN, biller-to-biller, IT to IT, etc.

  - And not to "flagship" sites, but *our* bed size, state, version, etc.

  - And *scored* with another thorough checklist, with these results:

Telephone Reference Calls

- **Meditech** led again, but only a tad ahead of **HBO**. It was poor **CHC** who's few users in NY state were only so-so…

- We've done over HIS 150 searches by now, and our phone scores are about 70%, helping *lower* end users' expectations.

Telephone Reference Results

Legend:
- Top 10 List
- Missing Features
- Support
- Hardware
- Training
- Flexibility
- Installs
- User-Friendly
- Strength-Weakness

Categories: Perfect, CHC, HBO, Meditech, Average

- The next step in our process hardly anyone ever does: look at the user manuals *before* you buy! Paper binders were a pain to ship in '93, but today's CDs and web sites are easily available. And you get much *lower* scores than on any RFP "feature checklist" response!
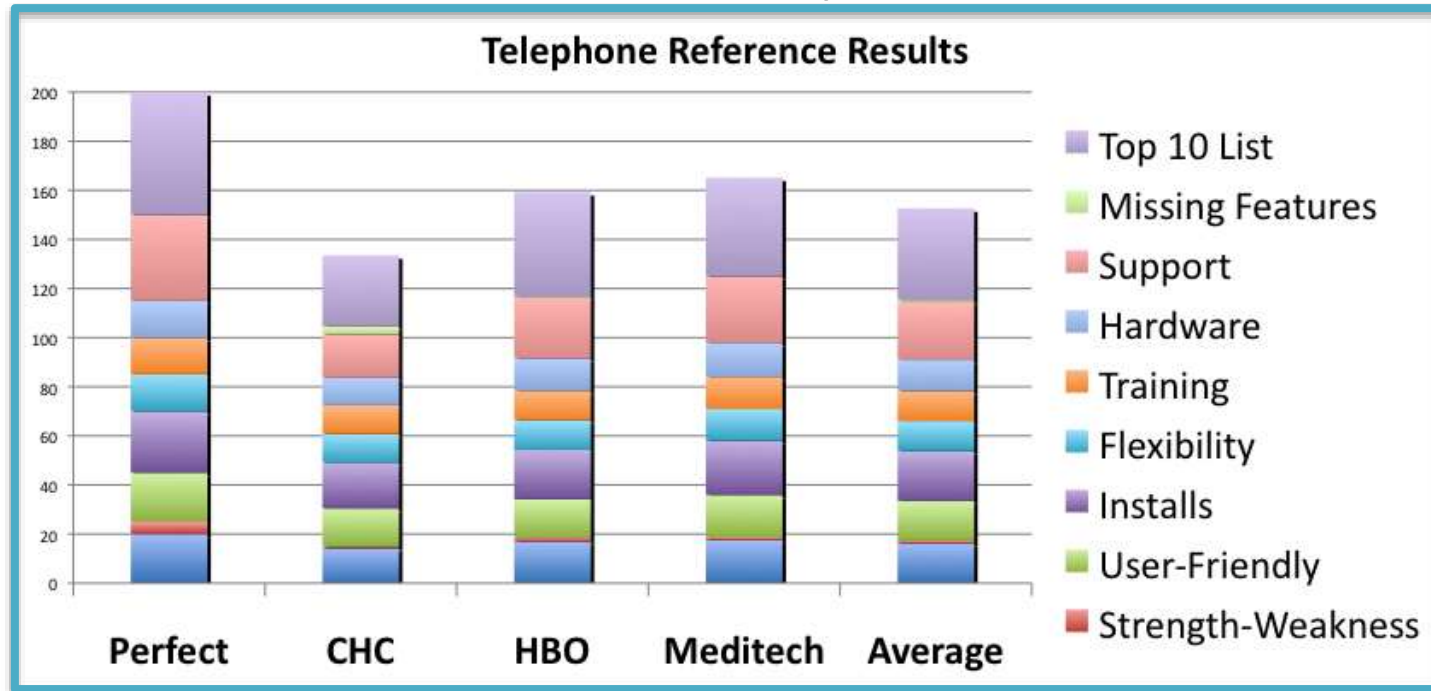
User Manual Review

- You sure don't get many "98.5" scores here either! Indeed, some up-and-coming vendors don't even *have* user doc...
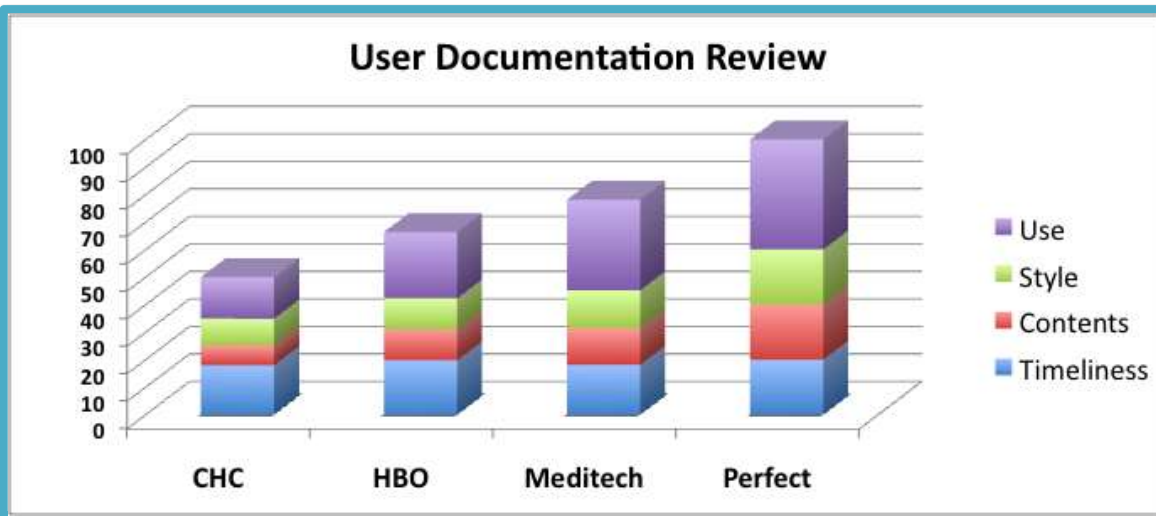
They claim their systems are so user-friendly, no manuals are needed!?

(tell that to an RN on the 3rd shift trying to help a physician figure out how to DC a med via CPOE...)

User Documentation Review

- As you can see above, Meditech had *superb* user manuals back then, HBO's were pretty good, but CHC had a long way to go in this regard.

- So we pretty much had our two "finalist" vendors for the next steps:
  - Site visits, once again peer-to-peer, with *no* sales "chaperones!"
  - *Detailed* cost review, with over 10 pages per (poor) vendor
  - And *concurrent* contract negotiations (no "VOC" beforehand)

Contract Questionnaire

- As you figured out by now, we don't place much stock in an RFP "Feature Checklist," defined as a "**R**equest **F**or *Prevarication.*"

- One checklist we *do* make vendors fill out is for contract Ts & Cs. Back in 1993, we had 25 items we drilled vendors on, such as:
  - Sub-1-second system response times, or the *vendor* buys more hardware
  - *Veteran* installers: 5 years in Healthcare, 2 with the vendor, 1 prior install

- By today, we have over 70 such nasty items on ARRA, ICD-10, etc.

- This is the one area where Meditech did *poorly*, as illustrated on the right:

- The boys in Boston are just tough negotiators, and we struggle to get them to grant any concessions...

- At our next committee meeting, we summed up all these scores & voted

Contract Questionnaire

500 450 400 350 300 250 200 150 100 50 0

PERFECT   CHC   HBOC   MEDITECH

Brook's Committee Vote

- Here is how Brook's 10 user departments ranked the 3 vendors; we inverted their ranking for scores so the highest score wins: 3 points to their first choice, 2 to runner up, and 1 for 3rd choice.

	CHC	FDC	HBOC	Meditech
Pharmacy	2		1	3
Data Processing	1		2	3
Human Resources	2		1	3
Radiology	3	1		2
Medical Records			2	3
Nursing	1.5		1.5	3
General Accounting		1.5	1.5	3
Laboratory		0.5	2	3
Nursing	1		2	3
Patient Accounting	2	1		3
Totals:	12.5	4	13	**29**

MEDITECH introduces color, without the cost…

- No contest! **Meditech** just swept the vote except for Radiology (maybe they had a *deeper* view?). It was so overwhelming, Ralph called off the remaining steps in the process (site visits, etc.).

Meditech Recap

- So there you have it: how a handful of MIT grads formed a start-up HIS vendor that swept the small to mid-range hospital market!
  - Strengths: Satisfied clients (functionality & support), "*Total HIS*" (financial & clinical systems), low operating costs (12% of license fee/yr), and a *stable* management team/direction (no acquisitions, C-Suite change, nor 90-day Wall Street panic).
  - Weaknesses: High capital costs (you get what you pay for?), proprietary data base (tough interfaces – *this ad is a lie!*), and rookie installers. Today, one might also quibble about multiple product lines…
- Next week? We shift to the 6th ranking vendor of today: **GE Healthcare**, and their roots in another frozen northland – Burlington, Vermont. Any HIS veterans who worked for "Burlington Data Processing" please write: *vciotti@hispros.com*
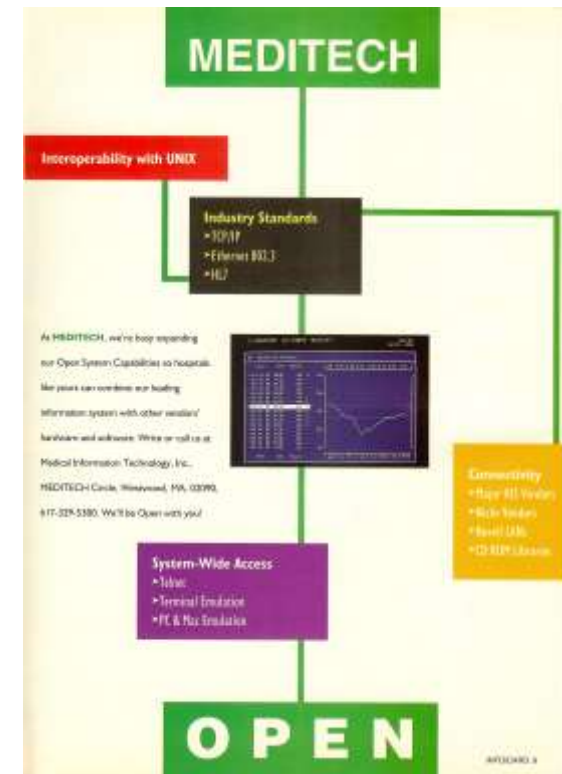
H.I.S.-tory

by Vince Ciotti

Episode #88: GE

Healthcare

Part 1

OPERATING IN THE BLACK REQUIRES INNOVATIVE TECHNOLOGY.

Interpretive Data Systems Is Now IDX Corporation.

Day after day, for more than 18 years, the people and products of Interpretive Data Systems have been hard at work in America's leading health-care facilities. Now we're IDX Corporation. Our new name reflects a renewed commitment to provide the healthcare industry with technically superior, full function, integrated information management systems. And to back them with outstanding service and support. Our name has changed but our goal remains the same. We're in the business of making you successful.

To learn more about how IDX meets the needs of your healthcare organization, call or write us today. IDX Corporation, 1500 Shelburne Road, Burlington, VT 05402-1070. Telephone (802) 862-1022. Regional offices in Boston, Chicago, Dallas and San Francisco.

Successful clinics and group practices have learned how to streamline billing procedures and implement effective collection policies. The most respected managed care organizations know how to keep costs down. How do they do it? Many of them rely on the technically superior application software of IDX.

IDX software systems are available on either a time-sharing or in-house basis. They're built around a single, centralized data base. Their unparalleled communications capabilities support remote departments and satellite locations. They're easy-to-use and easy-to-customize.

IDX offers a wide array of on line, real time applications including: Billing and Accounts Receivable, Paperless Collection, Managed Care, Medical Records, PC Download, General Ledger and Accounts Payable.

All IDX application software — financial, administrative and clinical — are integrated with one another. That means that every department in your organization can have access to any patient's file.

Technical personnel at IDX are available day and night to assist your data processing staff. As your needs change or expand, they'll recommend additional applications and system enhancements that add value to your initial investment.

Hundreds of users at the most prestigious medical schools, group practices, clinics and managed care organizations utilize innovative IDX software technology. Yours can too.

IDX
CORPORATION
Your Success Is Our Business.

INFO/CARD 26
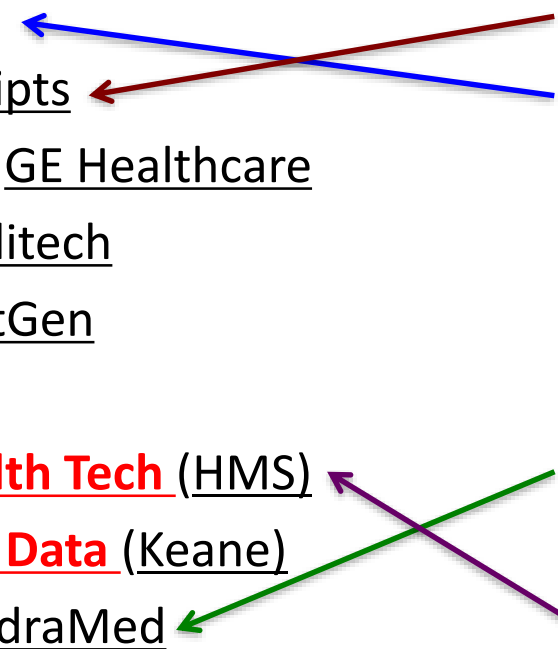
- This week we continue the HIS-tory of ***today's*** vendors with **GE Healthcare**, whose 2012 estimated revenue places them in 6th place:

  1. $3.2B = <u>McKesson</u>, née HBOC = Walt Huff, Bruce Barrington, & David Owens
  2. $2.6B = <u>Cerner</u>, *still* run by Neal Patterson, co-founded with Cliff Illig
  3. $1.8B (est) = <u>Siemens</u>, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde
  4. $1.5B = <u>Epic</u>. Gee, I have to wonder, just ***who*** was it who founded them?
  5. $1.4B = <u>Allscripts</u>, née Eclipsys, also founded by Harvey Wilson of SMS.
  6. $850M (est) - <u>GE Healthcare</u>, née IDX/PHAMIS: created by Malcolm Gleser
  7. $597M = <u>Meditech</u>, *still* run after all these years by Antonino Papallardo
  8. $375M = <u>NextGen</u>: née Quality Systems Inc. founded by Sheldon Razin
  9. $183M = <u>CPSI</u>, founded by M. Kenny Muscat & Denny P. Wilkins ***(who??)***
  10. $156M = **HMS** (Healthcare Management Systems), Tom Givens & John Doss
  11. $150M = <u>Keane</u>, parent giant by John Keane, but HIS div. built by Ray Paris
  12. $106M = <u>QuadraMed</u>, née Compucare, founded by Sheldon Dorenfest
  13. $75M (est) = Healthland, formerly Dairyland, founded by Steve Klick

Notice The Changes?

- Wonder who noticed the changed position of several vendors in the preceding table with **2012** revenue? Two even have new *names*!

2012 Annual Revenue	2011 Annual Revenue
1. $3.2B = McKesson	1. $3.2B = McKesson
2. $2.6B = Cerner	2. $2.2B = Cerner
3. $1.8B (est) = Siemens	3. $1.7B (est) = Siemens
4. $1.5B = Epic	4. $1.4B = Allscripts
5. $1.4B = Allscripts	5. $1.2B = Epic
6. $850M (est) - GE Healthcare	6. $900M (est) - GE Healthcare
7. $597M = Meditech	7. $545M = Meditech
8. $375M = NextGen	8. $353M = NextGen
9. $183M = CPSI	9. $174M = CPSI
10. $156M = **Health Tech** (HMS)	10. $170M = QuadraMed
11. $150M = **NTT Data** (Keane)	11. $160M = Keane
12. $106M = QuadraMed	12. $110M = HMS
13. $75M (est) = Healthland	13. $70M (est) = Healthland

Another 44 Year Old!

- Thanks to feedback from <u>Sheldon Dorenfest</u>, easily the most knowledgeable expert in our industry (whose "3000 Guide" was the source for HIMSS Analytics), below is a corrected version of the macro-level time line showing the roots of all 13 of today's leading HIS vendors (turns out HBO wasn't formed until 1975)

- I was amazed to learn when researching the roots of IDX, the source of **GE's** "Centricity Enterprise" HIS, that it too started way back in **1969**, the same year as **Meditech**, **SMS** and **Compucare.**

HIS-tory Timeline of Today's Leading Vendors

1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

HBO → HBOC → McKesson

Cerner

SMS → Siemens

Lockheed → Technicon → TDS → Revlon → AllTell → Eclipsys → Allscripts

Epic

BDP → IDS → IDX → GE

Meditech

Quality Systems Inc → NextGen

CPSI

Compucare → IBAX → Compucare → QuadraMed

KeaMed → Keane HSD → Caritor → NTT

HMS → HealthTech

Dairyland → Healthland

Acquisition-itis

- **GE's** roots are as complex as Halley's novel, so we'll just trace the *core* of its "Centricity Enterprise" HIS; I'd need a blog as long as Mr. HIS-Talk's to cover *all* of the many ancillary systems they acquired over the years to create their product line, including:

Company	Acquired Date	(New Name)
– Lockheed Martin/LORAL	1997	(Centricity PACS)
– Marquette Medical Systems	1998	(Centricity Perinatal)
– Applicare	1999	(Centricity PACS)
– Micro Medical	2000	(Centricity CVIS)
– Per-Se RIS	2001	(Centricity RIS)
– iPath ORMIS	2002	(Centricity Perioperative)
– BDM	2002	(Centricity Pharmacy)
– MedicaLogic Logician	2002	(Centricity Physician Office EMR)
– Millbrook	2002	(Centricity Physician Office PM)
– TripleG	2003	(Centricity Lab)

Northern Roots

- The core of **GE Healthcare's** HIS came from another company formed in the frozen northlands (what is it with *ice* and HIS??): **IDX**, acquired by **GE** in 2006 to put it on the HIS map. **IDX** themselves has built & acquired a wide array of HIS products which **GE** renamed with one of their "Centricity" monikers:

Product	(New Name)
IDX Flowcast	(Centricity Business)
IDX Groupcast	(Centricity Group Management)
IDX Carecast	(Centricity Enterprise)
IDX Patient Online	(Centricity Patient Online)
IDX Referring Practice	(Centricity Referring Practice)
IDX eCommerce Services	(Centricity EDI Services)
IDX Web Framework	(Centricity Web Framework)
IDX Imagecast	(Centricity RIS-IC)

So Who is "BDP?"

- You mean you never heard of "**Burlington Data Processing**?" Neither did I, and it's only *one* of many surprises I learned when researching the roots of **IDX**. It all started on a basketball team!

- It's so cold at Saint Michael's College in Vermont that they concentrate on *indoor* sports like basketball, and in the 1960s, two young hoopsters played ball together, then both joined **IBM** upon graduation.

- (Another pattern in HIS-tory: how many HIS founders started as big blue sales reps, like Jim Macaleer & Harvey Wilson of SMS)

- These two former St. Mike's teammates left **IBM** on June 2 of 1969 and using $12,500 of their own savings, formed **BDP**:

- Robert Hoehl (on left)
- Richard E. Tarrant (right)

Diverse Markets

- Like so many other HIS start-ups, **BDP** at first served *varied* vertical markets, processing accounting, billing, and payroll for many firms.

- **BDP** quickly concentrated on the healthcare industry. In its June 1998 issue, Business Digest revisited a 1985 article about Hoehl and Tarrant that included comments from Dr. Henry Tufo, one of **BDP's** first customers. Tufo recalled how **BDP** outbid a number of national firms to build a system for the new University Health Center during the 1970s. Joking that their low bid may have stemmed from a relative lack of industry experience,

Tufo praised the two entrepreneurs, calling Hoehl "the best practical computer mind I've ever run into" and stating that Tarrant "understands his business and has the talent to sell ice cream to the Eskimos."

- *That sure ties in with frozen Vermont!*

Regulatory Complexity

- Probably as a result of their work with Dr. Tufo, in 1970, **BDP** rolled out what it described as the first "**open item**" physician billing system. The following year the company declared that the healthcare industry would be its specialty and it embarked on a path of steady growth that continued into the late 1970s.

  – So what's an "**open item**?" Hospitals had it relatively easy with their bills, which roll *hundreds* of charges into one green 1453 bill, which Medicare Part A, Blue Cross, etc., then paid all or part of based on a per diem or % (no DRGs back then).

  – Physician billers go mad as Medicare Part *B,* Blue *Shield,* etc., hunt and peck through every charge on their bills (white "1554" bills back then), paying some in full, some in part, and rejecting others… Each charge is "open" until settled by itself.

- So Hoehl & Tarrant were on to something: writing a billing and AR system that treated each charge as an open item, not one big bill.

Next Week

UB92 Claim Form

- It turns out Hoehl & Tarrant weren't the only ones helping physicians with these accounting challenges: they soon ran across a competitor in nearby Boston that was using daring DEC minicomputers to do what **BDP** was doing on stodgy old IBM 360 series mainframes. Like **BDP**, they had 2 founders:

  - Their names read like a "who's who" in IT circles today; do you recognize them and know where they ended up?

    - Paul Egerman (on the left)

    - Terry Ragon (on the right)

  - When you hear what these two guys eventually got into, it almost makes **GE** pale by comparison! Stay tuned…

H.I.S.-tory

by Vince Ciotti

Episode #89: GE Healthcare Part 2

IDX CORPORATION

IDS

MOVING FORWARD

Since 1969, Interpretive Data Systems, (IDS), has provided top-quality software and support to the healthcare industry. We currently serve managed care organizations, hospitals, laboratories, large and small multi-specialty medical groups, faculty practice plans and individual practitioners.

Our determination to continue as an industry leader has prompted us to adopt our new name — IDX Corporation. IDX Corporation gives us scope for future development by allowing us to offer expanded choices for YOU — our healthcare customers — not only in software, but with additional services to help make you successful.

Our name and look are new, but our commitment is the same: to offer the latest technology, innovative ideas, close attention to detail, and very personal service.

Richard E. Tarrant
President

Burlington • Boston • Chicago • Dallas • San Francisco
(802) 862-1022

From BDP to IDS

UB92 Claim Form

- As we saw last week, Hoehl & Tarrant weren't the only ones helping MDs with "open item" accounting: turns out a competitor in nearby Boston was using daring DEC minis to do what **BDP** was doing on their shared monster IBM 360 series mainframes: "Interpretive Data Systems" (IDS), formed in 1974 by:

  – Paul Egerman (below left), who would eventually be IDX's COO under Tarrant.

Paul later formed **eScription Inc**., and sold it to Nuance in 2008 for $340 million!

- Terry Ragon (right) who earned his physics degree from MIT, but he did *not* join **Meditech**! Instead, he went on to found his own **InterSystems Corp.** in 1978 (Mmmmm.. a cliché?)

BDP + IDS = IDS, Inc.

- BDP and IDS merged in 1978 to form <u>Interpretive Data Systems, *Inc*</u>. An IDS office was established in Boston and the "Systems Group" was created to serve small group practices on minis.

- The old BDP group stayed on their mainframes for larger practices, and expanded their market to hospitals, with an integrated system for both ambulatory & acute care, part of the "managed care" craze of the 1980s.

- They even offered an "Electronic Medical Record" (though hardly one by today's MU standards) in 1984, which was later re-named as IDS' Clinical Repository System (CRS).

Please see us at the MUMPS Show in Atlanta, June 8-12, 1987, Booth #54-55

POWER FROM A SINGLE SOURCE

Only IDS provides integrated software powerful enough to meet even the most striking requirements of today's well managed hospitals.

Hospitals   Ambulatory   Prepaid   Laboratories   Management Services   Physicians

IDS Interpretive Data Systems, Inc.
The one healthcare system that does it all.

Burlington   Boston   Chicago   Dallas   San Francisco
(802) 862-1022

Circle Reader Service No. 10

Growth *and* Acquisitions

- IDS followed both **Meditech's** self-developed approach to building their own systems like the CRS, *as well as* **GE Healthcare's** later penchant for growth through acquisitions, resulting in phenomenal numbers, viz:
  - '85 revenue $20M, 200 FTEs; '93: $91M, 500 FTEs!
- In 1986, <u>IDS Inc</u>. changed its name to "IDX" per this ad:
- A major acquisition in 1991 was "DEC-Rad," an RIS pioneered by DEC and the <u>Radiology Information System Consortium</u>, which they re-named "IDX-Rad."
- Revenues continued to grow over the next 10 years:

10 Year HIS-tory of IDX's Annual Revenue

Year	Revenue
1993	~$100
1994	~$120
1995	~$140
1996	~$165
1997	~$260
1998	~$355
1999	~$355
2000	~$355
2001	~$390
2002	~$470
2003	~$410
2004	~$530

IPO!

- BY 1995, IDX revenues had grown to $128.1 million with over 1,000 employees. In November of that year, the company went public. Dr. Henry Tufo, who if you remember was among the company's first healthcare clients some 20 years earlier, was named COO. In the June 1998 issue of *Business Digest*, CEO Richard Tarrant commented on how going public affected them:

  - *"Going public helped us focus," he explained. "One of the best parts… was that, while I had heard all the bad things about dealing with Wall Street and stockholders--the pressures, quarterly numbers, all the stuff that's hard--what nobody ever said is that they will ask great questions. Wall Street analysts ask great questions. They are very smart people. They focus on an industry. They study the competition. They really make you answer the tough questions."*

  - CEO-speak for "They can really break your chops!"

More Rare Candor

- Rich Tarrant goes on to make some extremely frank comments that are so uncommon in the rarified air of vendor C-suite circles:

  - *"An entrepreneur kind of manages everything him- or herself, knows where everything is, can do everything. Entrepreneurs can do a job better than someone they're going to hire, but they need someone to help them. I pride myself on having made the transition to professional management, where the people who report to me are better at what they do than I could ever be. I couldn't do any of their jobs. In fact, I don't even manage day-to-day stuff. That's the chief operating officer's stuff. As the CEO, I'm responsible for strategy, direction, Wall Street, the investors and waving the flag when we're dealing with big customers. You know, a lot of times, with a CEO, if you just show up, it means something."*

- Keep that in mind next time a vendor CEO visit your hospital!

Biggest Catch of All

- By far, the biggest acquisitions IDX ever made was in 1997, when they acquired one of the pioneering EMRs in HIS-tory.

- And don't just laugh at the fishy picture, this acquisition really did have its roots in the **sea**, keeping track of Seattle sailors' charts...

- Meanwhile, here's a time line of the GE/IDX HIS-tory to date:

HIS-tory of GE Healthcare

1969	1974	1978	1981	1986	1992	1995	1997
Burlington Data Processing							
	Interpretive Data Systems	Merged as IDS		Renamed IDX	IDXrad		IPO
				DECrad			
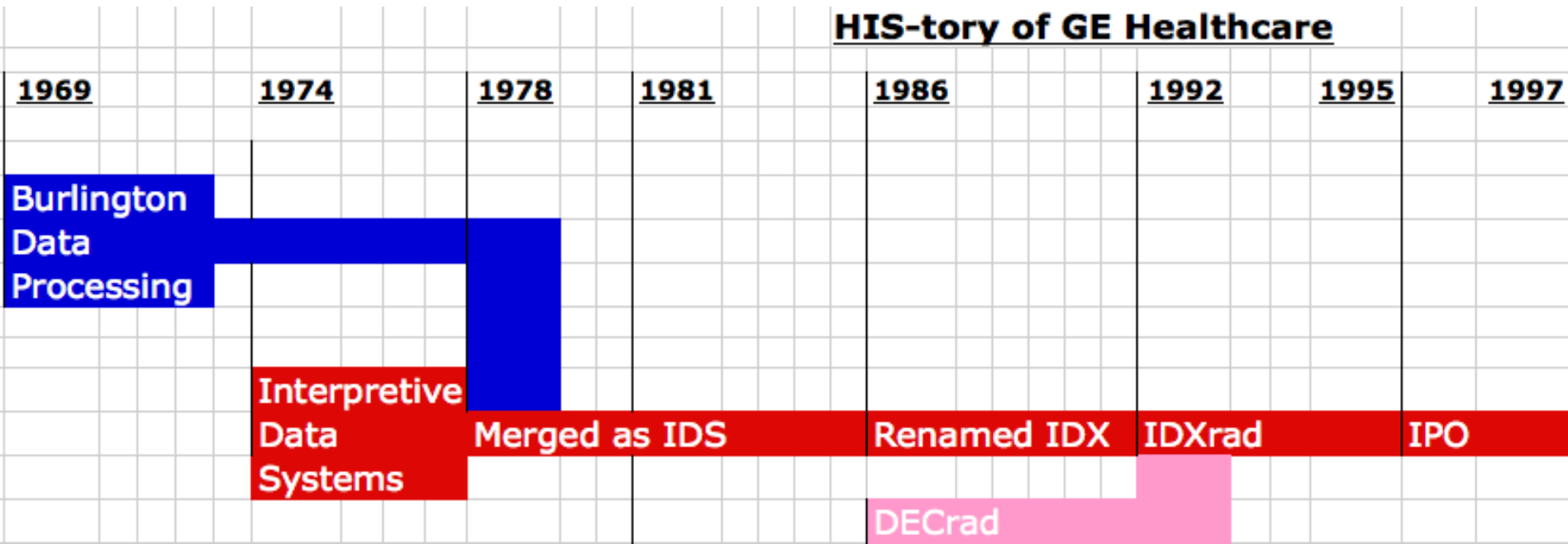
H.I.S.-tory

by Vince Ciotti

Episode #90: GE Healthcare

Part 3

Vision means seeing things differently before everyone else.
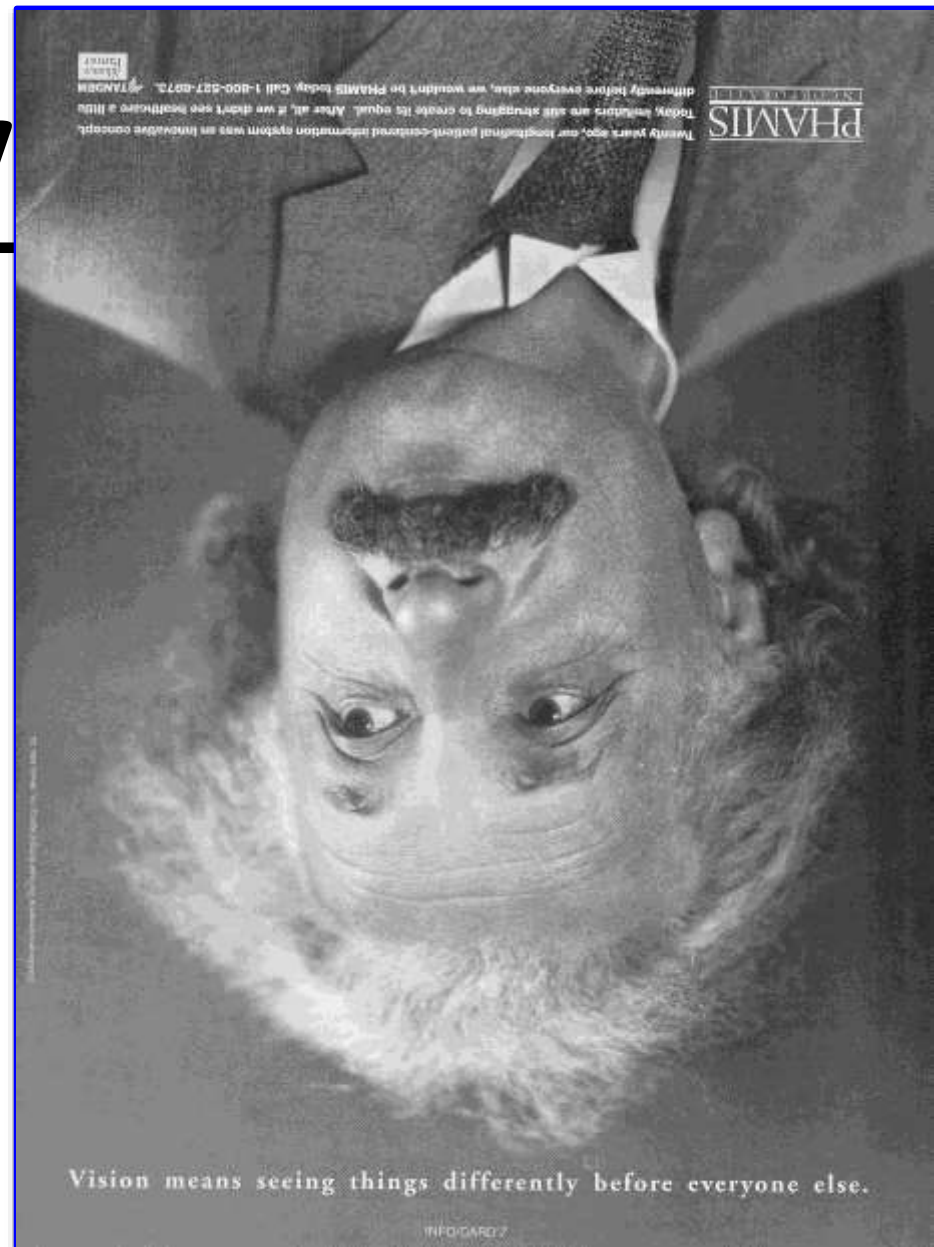
IDX Buys Into The Hospital Market

- No, I didn't screw up and place that graphic upside down – it was as brilliant an ad as the firm IDX acquired to get into the HIS market

- You may remember we left off last week with IDX going public in 1995, when they were primarily a physician billing company, with only a few hospital apps, like HPA (Hospital Patient Accounting).

- So with deep pockets from their IPO, IDX went looking for a hospital *clinical* system to make them a total HIS vendor. Who did they buy? Easily one of the most famous HIS vendors ever, and one whose product was the last word in clinical systems at the time, co-founded by two "doctors," one an MD the other a Ph.D. *and* MD:

  – Dr. Mark F. Wheeler, MD, M.P.H., a practicing physician, and

  – Malcolm A. Gleser, MD, and with a Ph.D. in Biomathematics.

- They worked for the U.S. Public Health Service (USPHS) in Seattle, WA, which continue our trend of northern roots for so many HIS pioneers – not as cold as Vermont, but far more precipitation!

Sailors' Charts

- When Wheeler & Gleser joined USPHS in the '70s, it was serving mainly American seamen and Department of Defense personnel.

- This highly mobile population provided the ideal venue for creating an *electronic* chart that would follow them around western ports.

- Strange how in their efforts to build an electronic chart for *sailors*, Wheeler and Gleser found two *aircraft* manufacturers in those early days who were also pioneering systems that automated charts:

  - Lockheed-Martin's "MIS" – running on **IBM** 360 mainframes

  - Martin-Marietta – who were using **Tandem** "Non-Stop" systems

    - Back in those DOS/MVS days when a system crash could take *days* to recover, 2 CPUs, 2 disk drives, etc., working in **tandem** was a far more reliable platform for an electronic chart whose reliability could adversely impact patient care

Working in Parallel

- So the doctors decided to follow Martin-Marietta's lead and build their system on **Tandem** Non-Stop computers, as explained below by Dr. Wheeler in an early article:

  "The NonStop platform was what allowed Martin to win. The total system life cost was lower, because we could add processors as needed. We really felt that the NonStop platform was optimal for our kind of work, and we still feel that way today."

- Per the paper below, the USPHS operated 9 hospitals and 26 clinics, so the e-chart had to enable a given patient's chart to be *shared* among many entities, much like the RHIO/HIE/interoperable world of today.

```
PHAMIS — A MULTIHOSPITAL INTEGRATED MEDICAL INFORMATION SYSTEM




                    Malcolm A. Gleser
                    David Lang



              Department of Health Services Research
      U.S. Public Health Service Hospital,  Seattle, Washington
```

Malcolm A. Gleser, M.D., Ph.D.

Famous Product Name

- So what to call this new system? How about "Public Health Automated Medical Information System" or **PHAMIS** for short. It was extremely robust, with modules that rival today's HISes, viz:

  – Scheduling, ADT, Order Entry, Results Reporting, Medical Alerts, Pharmacy, Laboratory, Radiologic reports, Problem Lists, etc.

- In the early 80s, Wheeler & Gleser formed their own company under the same **PHAMIS** name to offer the system to non-USPHS facilities. Thanks to their physician-friendly design, robust app portfolio and reliable Tandem platform, it sold well to sites like:

  – Mayo Clinic (Minn), Thomas Jefferson (PA), Montefiore (NY)…

- **PHAMIS** next came up with a name to separate the company from the *product*, which they felt was easily the last word in electronic medical records of the time:

Want ads from Phamis 20 years ago; sadly, no $s were given. What were you doing back then?

Rapid Growth

- **PHAMIS** rode the wave of the tidal shift in the HIS industry from financial to clinical systems during the 80s & 90s.

- As the chart below shows, revenues grew well, and by 1995, **PHAMIS** had over 300 employees, 40+ large IDN clients, and had gone public.

PHAMIS Revenue Growth ($M)

Cross Country Acquisition

- On a deal that benefitted airline stocks (*both* offices were kept open), **IDX** from Burlington VT acquired **PHAMIS** in Seattle in a stock swap valued at $147M. The gory details of the 1997 deal:

  - *"Under the agreement, Phamis shareholders would receive 0.73 share of IDX common stock for each of their shares. Based on IDX's closing price yesterday of $31.75, the transaction is valued at $23.18 a share. Phamis had 6.35 million shares outstanding as of Dec. 31. Shares of Phamis, based in Seattle, were up $3.375, to $22.25, before trading was halted."*

- **IDX** re-named LastWord as "CareCast," and started selling its "integrated" array of physician and other hospital systems, making them a target for the next big takeover themselves…

- Next week we'll wrap up the GE saga, adding *many* more bars to this timeline!

HIS-tory of IDX
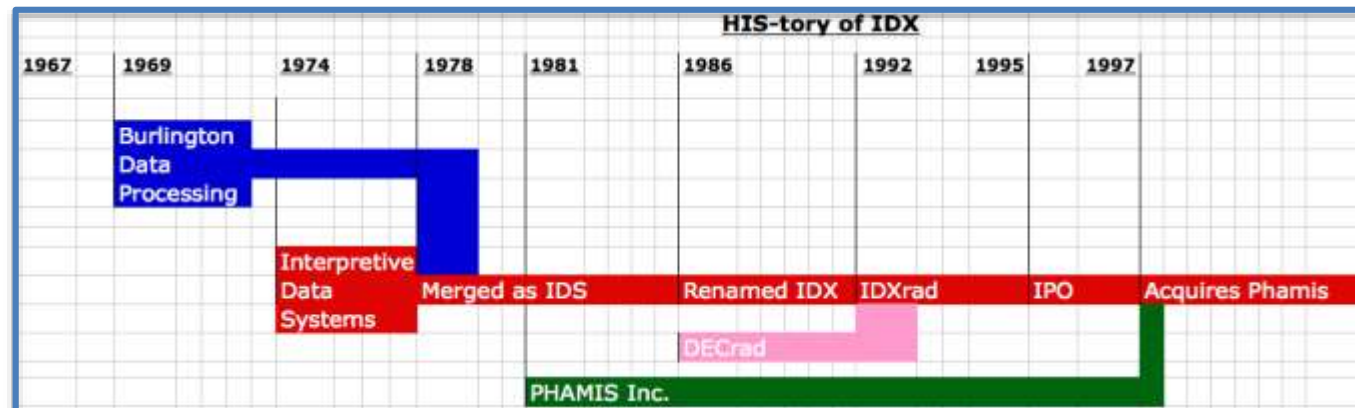
H.I.S.-tory

by Vince Ciotti

Episode #91: GE Healthcare

Part 4

The *Oldest* HIS Vendor?

- Thanks to <u>Jim Pesce</u>, VP over McKesson's HIS products, we pick up the story of how GE began its HIS ventures several years before the three oldest current HIS vendors were founded back in 1969:

    – **Compucare**, **Shared Medical Systems**, and **Meditech**.

- You may remember Dr. Octo Barnett's early project at MIT that was the HIS baptism for **Meditech's** founder Neal Pappalardo. Turns out, Jim Pesce joined GE Healthcare way back then too:

    – *"Actually started up in 1966. Was a start up funded by Cambridge, MA based engineering firm Bolt Baranek and Newman. They were building the internet for healthcare. The technology couldn't support their vision. GE took over funding at end of 1967. GE then sold the system to HCA in 1971 when the entire team, except Pesce relocated to Nashville. The system which was financials only is the home grown billing system HCA still uses today... Imagine that!"*

Sleeping Giant…

- In fact, <u>HCA</u> is not alone in using 1960s technology in 2013:
  - *Hundreds* of hospitals still run **Siemens** "Invision," with TCE (Transmission & Control Error) reports from 1960's SHAS.
  - And *hundreds* more are still running **Meditech's** "Magic," with roots that go back thru MIIS to Dr. Octo Barnett's MUMPS…
- What's germane to our HIS-tory is **GE** got **out** of HIS in 1971, and stayed out for several decades, ending any claim to being one of the oldest *continuous* HIS vendors.

- Then, in the late 90s, the sleeping electronics giant re-entered the HIS industry with a vengeance, using its enormous capital assets to fund a series of acquisitions of HIS firms.

Roaring Back, 20 Years Later

- As the time line below illustrates, once **GE** woke up in 1997, it went on a buying binge, gobbling up a slew of niche players:

Company	Acquired Date	(New Name)
Lockheed Martin/LORAL	1997	(Centricity PACS)
Marquette Medical Systems	1998	(Centricity Perinatal)
Per-Se RIS	2001	(Centricity RIS)
iPath ORMIS	2002	(Centricity Perioperative)
BDM	2002	(Centricity Pharmacy)
MedicaLogic Logician	2002	(Centricity Physician Office EMR)
Millbrook	2002	(Centricity Physician Office PM)
TripleG	2003	(Centricity Lab)
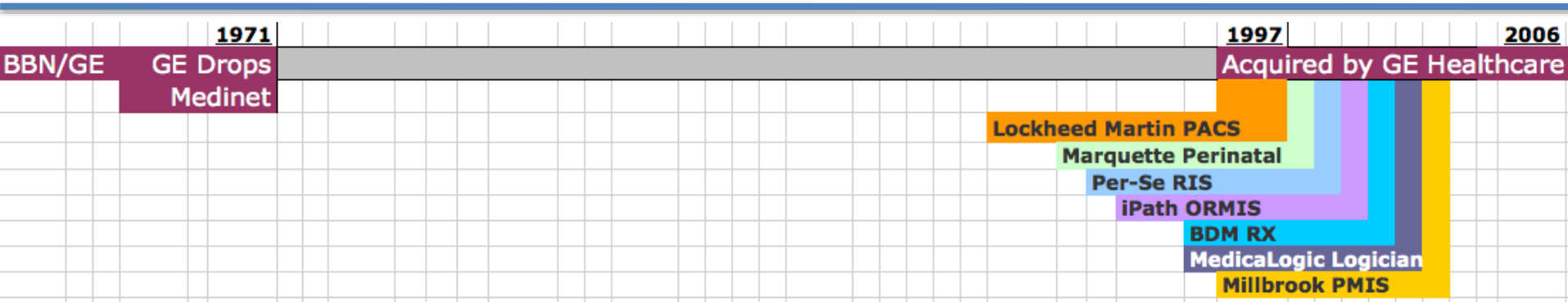
The Net is *CAST*

- The biggest acquisition of all was was **IDX** in 2005, for $1.2B, who had themselves acquired a full suite of hospital & ancillary systems, all renamed as part of the PHAMIS **"cast"** series of product names.

- So **GE** renamed each with one of its own "Centricity" monikers:

IDX Name	(GE Name)
Flowcast	Centricity Business
Groupcast	Centricity Group Mgmt.
Carecast	Centricity Enterprise
Imagecast	Centricity RIS-IC

- Most importantly, just like other acquisition-oriented firms such as HBOC, Eclipsys, Allscripts, etc., **GE** set about *integrating* the most important components of any HIS system: <u>marketing material</u>! Vendor HQ sales mavens churn out "seamlessly" **integrated**:

  – Brochures, PowerPoints, Proposals, Contracts, Invoices, etc.

- Some vendors even *interface* their disparate HIS acquisitions…

Impressive Financials

- Per the chart below, **GE** Healthcare grew nicely from these HIS acquisitions, and adding **IDX's** ≈$500M in annual revenue at the time of the takeover made **GE** an overnight *$1B+* HIS player!

  - They suddenly ranked 4th behind **McKesson**, **Siemens** & **Cerner**

- **GE** could offer both "Total HIS" (financial, clinical & ancillaries) as well as a full practice management suite (financial & clinicals).

- All under a fully ***integrated*** set of demos, proposals, ppt file, etc. Like other acquiring vendors, these products ran on a way array of hardware platforms, OS, data bases and programming languages...

10 Year Growth of GE Healthcare's Annual Revenue
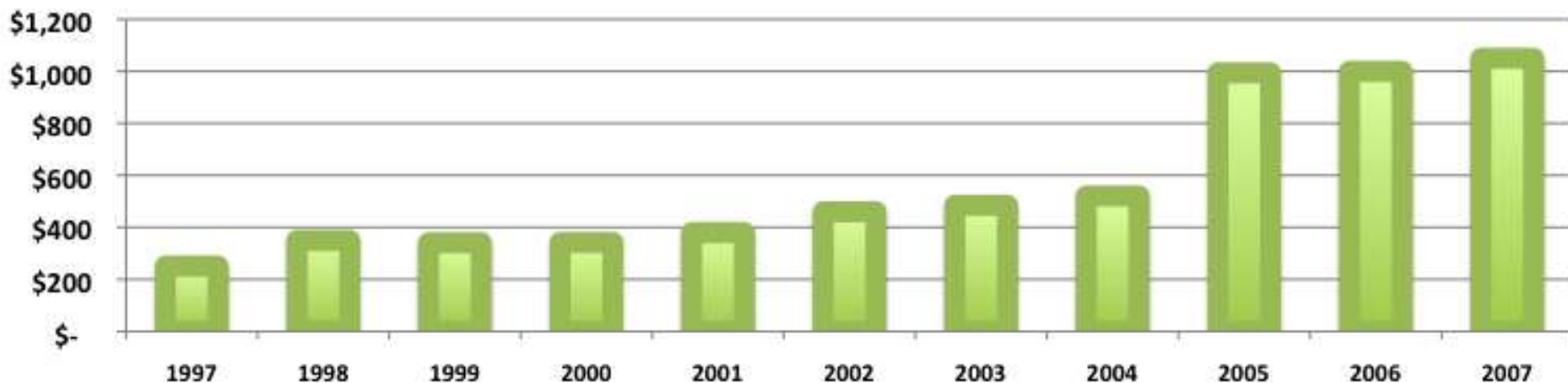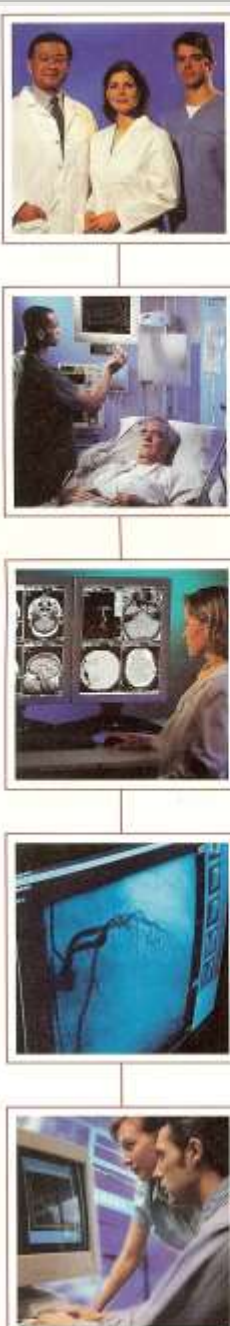
Sales Stars

- To head up sales of their red hot HIS division, **GE** recruited Frank Pecaitis, sales superstar during **QuadraMed's** halcyon days of the 90s, who also helped put **MedSphere's** "OpenVista" on the map.

- Here's **GE's** demo dudes & dollies at our 2009 "HIS Buyers Seminar" in Dallas:

- You name it, hospital or practice system, and they could present it – on a seamlessly integrated ppt!

GE's Apogee…

- By the end of the decade, **GE** hit an estimated $1B+ in HIT revenue from a large client base of ≈100 hospitals and over 1K physician groups.

- But then something happened to **GE** as well as **Horizon**, **Soarian**, **Sunrise**, **Millennium**, etc. They ran upon an "epic" competitor that dominated the large AMC/IDN world…

- Frank left, revenues slacked, and they not only lost large hospital sales, but started to lose many large Centricity *clients* as well to Ms. Judy.

Information at the
Speed of Life...
connecting clinicians
to information to patients.

Life can change quickly in a hospital environment. At GE Medical Systems *Information Technologies*, we can help by connecting your clinicians to comprehensive patient information acquired from multiple points of care. This rich repository of vital information forms the basis of a patient's electronic medical record (EMR), enabling you to make more informed decisions and deliver higher quality care, while improving productivity and reducing costs.

From world-class patient monitors like Marquette® and DINAMAP® to market-leading MUSE® ECG and RIS/PACS image management systems, and cutting-edge Centricity™ information systems, GE offers the most comprehensive suite of healthcare information technologies available. With products and systems installed in over 4800 of the 5600 U.S. hospitals, our combination of technology leadership, clinical experience and service capabilities makes GE a world-leading provider of integrated clinical workflow solutions.

Information at the speed of life… improving workflow throughout the healthcare enterprise.

GE Medical Systems
Information Technologies

We bring good things to life.
gemedical.com

A "Caradigm" Shift

- There were high hopes for **GE's** 2009 joint venture with IHC, creators of "HELP" years ago. To quote the Salt Lake City Tribune:

  – *"In early 2009, General Electric announced a $3 billion investment in new medical technology that involved a partnership between GE Healthcare and Utah's Intermountain Healthcare to create a top-line electronic medical-record system. The Web-based record system was designed to help doctors and nurses avoid medical errors and waste, while also creating an online record for patients."*

- Then, in March of this year came the surprise announcement:

  – *"Caradigm, a joint venture formed 10 months ago by GE Healthcare and Microsoft, has laid off approximately 70 percent of its Utah workforce. The layoff, which took place on Wednesday at the company's office in Murray, affected between 40 and 50 employees."*

Beginning of their 2ⁿᵈ Perigee?

- In our annual ranking of HIS vendors by annual revenue, we estimate **GE** has fallen several positions since their post-IDX peak.

- They even sold their RX system *back* to **BDM** in March! Is it the start of second retreat from the HIS biz? If I live long enough, I'll revisit this prediction in a ***2023*** HIS-talk HIS-tory episode on GE…

- Meanwhile, here's the 47-year picture of **GE's** HIS ups & downs:

HIS-tory of GE Healthcare

| 1966 | 1969 | 1971 | 1974 | 1978 | 1981 | 1986 | 1992 | 1995 | 1997 | 2006 | 2013 |

- Burlington Data Processing
- Interpretive Data Systems — Merged as IDS — Renamed IDX — IDXrad — IPO — Acquires Phamis
- DECrad
- PHAMIS Inc.
- BBN/GE — GE Drops Medinet — Acquired by GE Healthcare
- Lockheed Martin PACS
- Marquette Perinatal
- Per-Se RIS
- iPath ORMIS
- BDM RX
- MedicaLogic Logician
- Millbrook PMIS
- GE SELLS BDM!?
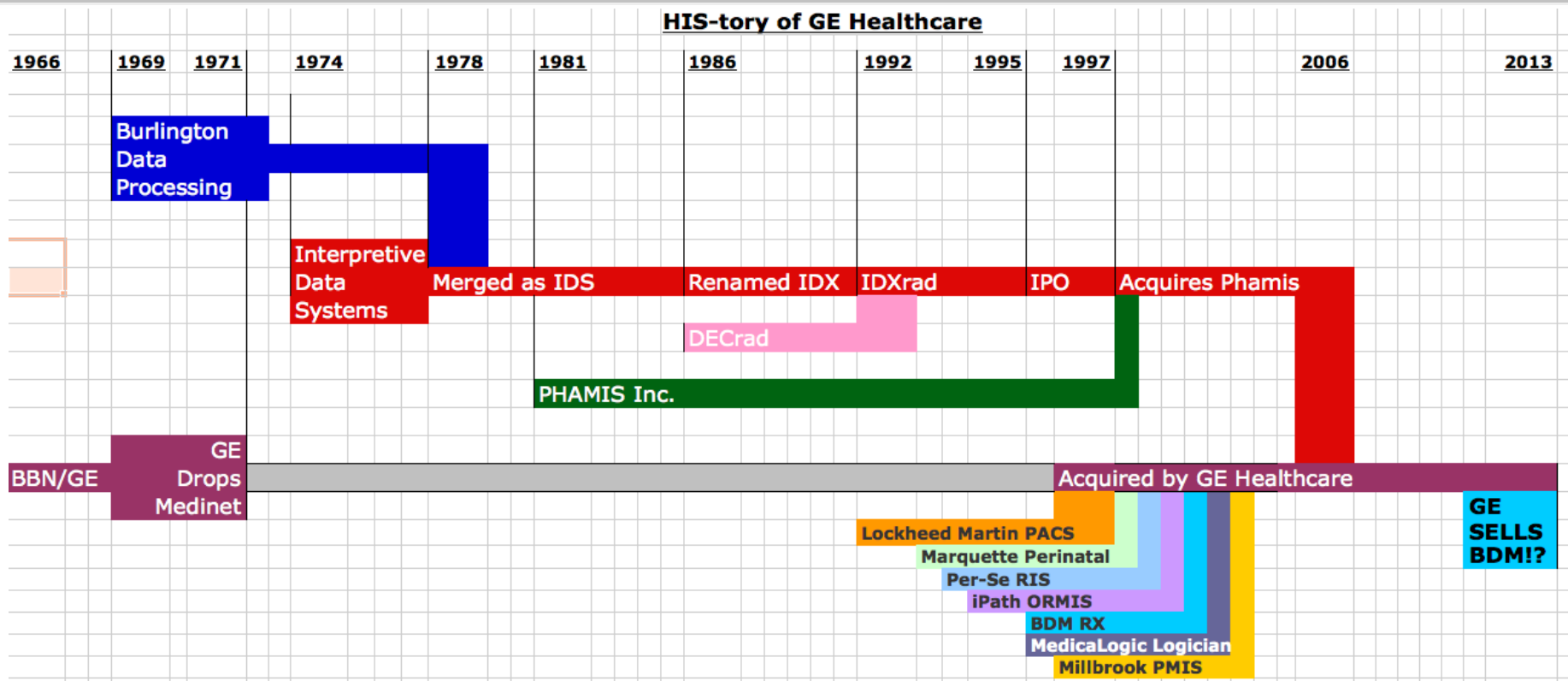
H.I.S.-tory

by Vince Ciotti

Episode #92:

Allscripts
Part 1

HOSPITALS ARE TRYING TO CURE THE COMMON HEADACHE.

Lockheed
Information Systems

5th of *Today's* Leading HIS Vendors

- This week we continue the HIS-tory of ***today's*** vendors with **Allscripts**, whose 2012 annual revenue of ≈$1.4B places them in 5th place:

1. $3.2B = <u>McKesson</u>, née HBOC = Walt Huff, Bruce Barrington, & David Owens
2. $2.6B = <u>Cerner</u>, *still* run by Neal Patterson, co-founded with Cliff Illig
3. $1.8B (est) = <u>Siemens</u>, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde
4. $1.5B = <u>Epic</u>. Gee, I have to wonder, just ***who*** was it who founded them?
5. $1.4B = <u>Allscripts</u>, née Eclipsys, also founded by Harvey Wilson of SMS.
6. $850M (est) - <u>GF Healthcare</u>, née IDX/PHAMIS: created by Malcolm Gleser
7. $597M = <u>Meditech</u>, *still* run after all these years by Antonino Papallardo
8. $375M = <u>NextGen</u>: née Quality Systems Inc. founded by Sheldon Razin
9. $183M = <u>CPSI</u>, founded by M. Kenny Muscat & Denny P. Wilkins ***(who??)***
10. $156M = **HMS** (Healthcare Management Systems), Tom Givens & John Doss
11. $150M = <u>Keane</u>, parent giant by John Keane, but HIS div. built by Ray Paris
12. $106M = <u>QuadraMed</u>, née Compucare, founded by Sheldon Dorenfest
13. $75M (est) = <u>Healthland</u>, formerly Dairyland, founded by Steve Klick

Complex Roots

- Some of you may be scratching your heads over that cover ad: what on earth does <u>Lockheed Aircraft Corporation</u> got to do with **Allscripts**?

- Truth is, with many of today's top vendors, the story gets to be a very long and complicated one as most built their product lines through acquisitions of other firms, who themselves made many acquisitions… Why I hope this HIS-tory series is so interesting – at least it sure is fascinating to trace through my old rags, ads & files!

- Allscripts roots go way back to the 1960s when **three** high-tech aerospace companies led the charge into hospital *clinical* systems:

  - <u>Martin-Marrietta</u> – where **GE's** PHAMIS got the inspiration of using Tandem "Non-Stop" computers.

  - <u>McDonnell-Douglas</u> – whose automation division in St. Louis developed "HPC" on a shared IBM 360.

  - <u>Lockheed Aircraft Corporation</u> – star of this week's episode and their Medical Information System (MIS).

Lockheed's "Frozen" Start

- Bill Childs, another HIS-tory hero and one of the early pioneers on our industry, relates Lockheed's early start in an interview with <u>Health Data Management</u> magazine in September, 2010, that describes yet another "frozen northlands" start for an HIS:

  - *"The story of how this magazine came to be actually begins in the **1960s**. I was at Lockheed Missiles & Space Company in Sunnyvale, Calif., when a few adventurous entrepreneurs gathered to consider building a medical information system (MIS) and a business office system (BOS). At some point, I drew the short straw to head up the development of the financial information system. Actually, this set very well with me because our clinical team was sent off to the Mayo Clinic in Minnesota in the dead of winter in 1967 to study the possibilities of an electronic medical record (EMR) and computerized physician order entry (CPOE) system, along with work-flow design and clinical process optimization."*

Mouse "Pre-Cursors"

- Why do I love that pun so much? Anyway, one of Lockheed's most innovative MIS components was a small piece of hardware that predates Apple's "borrowing" the idea of their 1980's mouse from Xerox's "PARC."

- Lockheed's engineers probably borrowed the idea themselves from one of their 60's defense projects like the one in the lower left, but its use in an EMR & CPOE was brilliant, as typing on a keyboard was as anathema to as many clinicians yesterday as it still is today!

- In today's world of ubiquitous iPads, we take touch screens for granted, but in the late 60s, it was brilliant!

- Here's an MD using the MIS light pan to select a test at El Camino:

Neilson Buchanan watches as George Ting, M.D., enters orders directly into MIS for an ICU patient.

Daring Pilots!?

- What is it that drives "pilot" hospitals to take such a risk as being the first to de-bug a radically new & often incomplete HIS system?
  - OSF in Peoria and Walt Huff's "Hospital Financial Control" (HFC)
  - Norwegian American Hospital in Chicago with Sentry Data
  - Cape Cod Hospital being Meditech's first hospital LIS foray
  - Long Beach Memorial and CSC's Tandem-based abortive HIS
  - Susquehanna Hospital in PA piloting Siemen's Soarian
- Etc, etc, etc. Some **won**, some **lost**, with the stakes being so high! Anyway, for Lockheed, when Mayo Clinic didn't pan out, El Camino stepped up to the plate and became one of the most famous pilot sites in HIS-tory. Somehow, they got a reputed 80%+ usage of CPOE using MIS' "Matrix Coding" to build custom order sets per MD, and VMTs (Video Matrix Terminals) in lieu of keypunching 5081 cards.

El Camino Details

- After 3 years of intense development, MIS finally went live in 1972. El Camino was big: 468 beds with a medical staff of 340 physicians, most of whom *used* the system! Lockheed reportedly spent over $25M in the development, and El Camino received a National Center for Health Services Research grant to evaluate it.

- The IBM mainframe was located at Lockheed's data center, with a 2nd box at a regional center for backup support.

- The hospital had **58** VMT terminals linked via "high speed" (for then) telephone lines. The MIS clinical software was written in assembly language, with COBOL used for the financial systems (BOS).


```
KEFZOL  INJ  500 MG,  STAT,  &THEN,  Q6H
SMA-18.....     COMMON LAB TESTS
                ----------------
                                              ▶A
                                              ▶B
BL CHEM       HEMA                  OTHER      ▶C
-------       ----                  -----      ▶DE
✓MA-18        ACT(COAG TIME)  UA               ▶F
  ▶DESCRIP    CBC             VDRL             ▶G
BUN            ▶DESCRIPTION                    ▶H
CPK,TOTAL     ESR                              ▶I-K
CREATININE    HEMOGRAM                         ▶L
ELECT(SMA-6)  (INCL PCV)  ▶OCC BL-ST           ▶M-O
GLUC(FBS)     PLAT CT     ▶CULTURE             ▶P
GLUC(2HPC)    PRO TIME                         ▶QR
LDH,TOTAL                                      ▶S
POTASS                                         ▶T
SGOT                     ▶BL BANK              ▶U-Z
URIC ACID  ▶TESTS BY SPEC'M TYPE
(----------------------------------------)
(PICKUP)    ▶PICKUP SCHED  ▶NURS
TOMORROW    ▶PRIORITY      ▶MEDS    ▶SPEC'M
TODAY       SPM COLLECTED  ▶DIET    ▶MASTER
  RETURN                            REVIEW
ERR         TYPE      RETRIEVE
```

Changes in Ownership

- Like McAuto & Martin-Marietta, Lockheed eventually sold off its HIS division, MIS going to **Technicon**, a leading laboratory vendor, who named their subsidiary "**TDS**" (Technicon Data Systems). In 1986, **TDS** was sold to a private company known as "TDS Healthcare System Corporation," owned by John Whitehead.

- TDS was later sold to **Revlon** (*not* a cosmetic change!) who later sold it to **Alltel**, the tele-communications giant, which also used the name **Systemetrics** for its IT subsidiaries.

- Over time, about 250 of the largest and most prestigious hospitals implemented **TDS** under its various names & owners, and it earned many accolades as *the* leading HIS of its day.

A Class (pre-KLAS) Act

- In the 1980s, McGraw Hill polled users of leading HIS vendors to rate their systems on a 1 to 5 point scale. The chart below shows how Technicon just blew away the alternative systems of the time:
- In case these acronyms stump your memory:
  - DCC = Dynamic Control Corporation , Lasky & Pomerance's SYS38 mini
  - EDS = Ross' "Electronic Data Systems" (pre-"Perot Systems")
  - HBO = Huff, Barrington & Owens (MedPro).
  - SAI = Systems Associates Inc.

Table 55

Nursing Station/Order Entry/Result Report Systems
Three-Year Hospital Overall Rating

Vendor	1986 Mean	1985 Mean	1984 Mean
DCC	3.86	3.47	4.00
EDS	3.25	3.29	3.57
HBO	3.14	3.68	3.77
IBM	3.29	--	--
McDonnell-Douglas	3.54	3.53	3.68
Meditech	3.67	3.67	4.17
NCR	3.33	3.40	--
SMS	3.52	3.84	3.65
SAI	3.58	3.60	2.67
Technicon	4.43	4.21	4.25

Illustrious Alumni

- Some of the most famous names and faces in HIS-tory got their start in HIS with Technicon's amazingly precocious MIS back then:

- **Bill Childs**
  - Recent recipient of CHIME's lifetime award, founded "Computers in Healthcare" the *first* HIS rag in 1980 →

- **George Kennedy**
  - One of the *first* HIS consultants ever, formed <u>The Kennedy Group</u> in '78, sadly departed all too soon →

O. George Kennedy, PhD
Founder, The Kennedy Group

- **Ron Johnson**
  - HIS maven and author of numerous studies on HIS vendors, Ron also sold for <u>McAuto</u> in its early years.

- **Ralph Korpman**
  - A CMIO before there was such a term, Dr. Korpman went on to create UltiCare at <u>Health Data Sciences</u>

Bigger & Better

- TDS added apps & modules to its product line over the years, and played the "name game" too, tagging MIS as TDS 4000.

- As this add shows, they even had ERP modules back then, something few large HIS vendors today bother with.

- The next acquisition of TDS needs its own episode, as it is an amazingly complex story of acquisitions and personalities that tie together many past episodes. See you next week!

H.I.S.-tory

by Vince Ciotti

Episode #92:

Allscripts
Part 2

A Systematic Tell-All…

- In case you couldn't read the fine print at the bottom of the ad on the previous page from 1994, you'd notice that TDS was now *"An **Alltel** Company, affiliated with Systematics Healthcare Services."*

- And just who's Alltel/Systematics when they're home? Alltel was one of the largest telecommunications companies in the US, that decided to buy their way into the IT biz by acquiring Systematics.

- Today they're part of Verizon's mega-corporation, but back then, their acquisition of TDS was an earth-shaker, exchanging 2 million of ALLTEL common shares for all the outstanding shares of TDS.

- Besides TDS, they also acquired John Depierro's **Medical Data Technology** (MDT), that had rights to run TDS on a *remote-hosted* basis throughout the greater Delaware Valley (NY, NJ, PA…).

- Within 3 months, Alltel/Systematics also announced its first *outsourcing* agreement, with St. Joseph's Hospital in Parkersburg, W.Va., showing it was going to be a force to be reckoned with…

Next Part of the "Script"

FIGURE V - 11

SALES OF COMPANIES SERVING HIS APPLICATIONS

Company	1980	1979
IBM	$36.0	$24.0
Technicon Data Systems Corporation	$21.0	$15.5
Burroughs	$12.0	$12.0
Whittaker Spectra	$8.0	$7.2
NADACOM	$6.8	$5.0
McAuto	$4.0	$1.0
Datacare, Inc.	$3.5	$2.7
Computer Sciences	$1.5	$1.0
Electronic Data Systems	$1.0	$.5
Shared Medical Systems	0	0

$ in Millions

- As this classic table from Shelly Dorenfest's early Guide documents so well, **Technicon** had sold more "HIS" (EMR) systems than any other vendor but IBM.

- Each of these other vendors could be a HIS-tory episode in their own right, but *not a single one survived* until today except the very last one, **SMS**, that acquired rights to HBO's MedPro for "ACTIon," which they augmented with their own self-developed DEC version.

- Curiously, **SMS** was co-founded by the same individual who would also found the successor firm of Alltel/Systematics: Harvey Wilson, *da man!* No other HIS-tory hero can brag of having formed **two** of today's leading HIS vendors, and here's the *human* side of the story
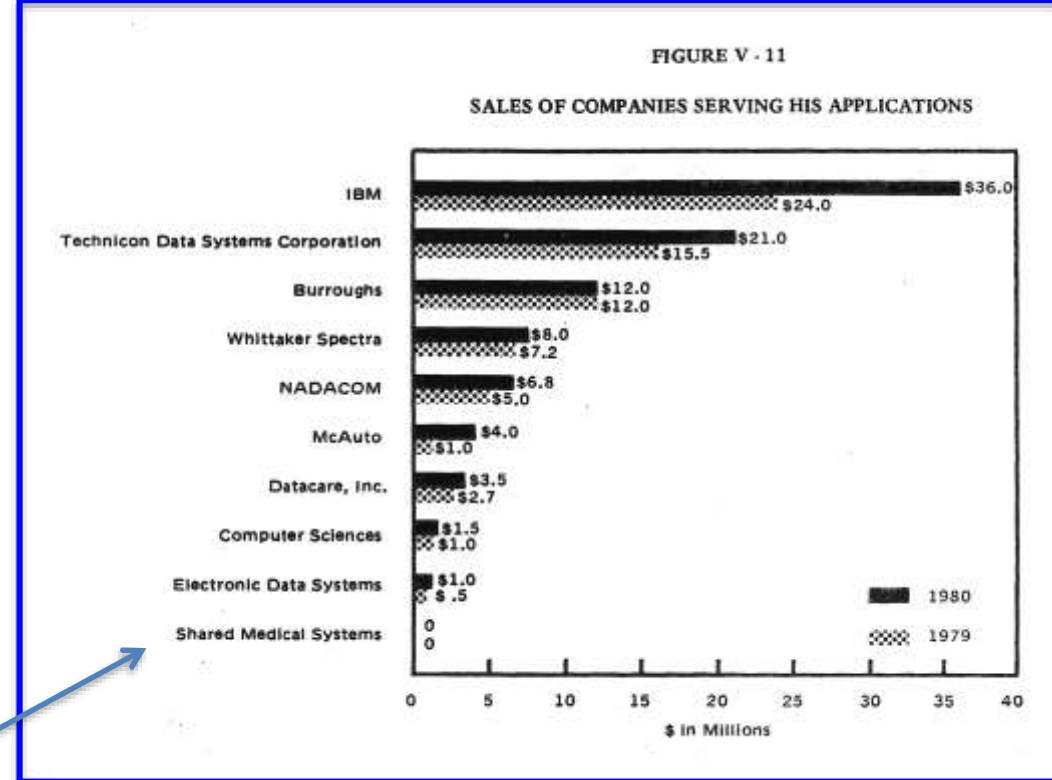
A Tale of Two Hot Rods

- I first met Harvey at SMS when I joined in 1969 and drove my 1966 'vette up to King of Prussia, with its 427 monster V-8: (that's me on the left & my brother Dave)

- In SMS' cafeteria one day, some tall guy asked "Who's got the 'vette?" and I suddenly found myself talking with the <u>Senior VP of Sales & Marketing</u>: Harvey!

Jaguar V-12: The ultimate cat

- A few months later, I was working in NJ at SMS' Woodbridge office on my first install as an ID, when up pulled this monster V-12 Jaguar fastback coupe into the parking lot – it was Harvey with his stunning new machine that blew mine away! It was this *competitive* urge that drove his amazing career from SMS to…

A Second Passion

- Harvey led SMS' sales & marketing efforts superbly, even serving as CEO for a while when Jim Macaleer was Chairman. He retired in the late 80s to pursue his 2nd passion: boating, acquiring a yacht company in FL.

- He couldn't get HIS out of his head however, and in 1995, attended a client gala our FL partner, Karl Sydor, hosted on this elegant yacht above. On the left, Harvey intrigued the CEOs & CFOs in attendance with ideas about starting another IT firm. (sorry the picture's so poor - it was taken on Apple's 1st e-camera: a **QuickTake**, big deal in those days!)

NewCo & Company

- "NewCo" is the nom de plume for a biz start-up while legally searching for a new name. Harvey's venture started at a client of ours Karl Sydor had in sunny West Palm Beach: <u>Good Samaritan Medical Center</u>.

H.I.S. PROFESSIONALS

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Karl Sydor

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- 5 years, Hospital MIS dept. management.
- 15 years, Regional Support Manager for leading HIS vendor.
- 10 years, HIS consulting.

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- Karl & I worked in NJ at SMS, and he was a co-founder of HIS Pros. He asked me to help assess Good Sam's DP department, and our report was critical of their inhouse mainframe data center – just not being run well by our old SMS/KOP standards.

- Karl asked Harvey for ideas about how to fix things, and Harvey called his former Operations Manager at SMS, who's a HIS-tory hero in his own right (check out previous episode #41 at hispros.com):

NewCo's SMS Alumni

- Jim Carter had been SMS' *superb* VP of Operations, pictured on the right at our 2009 reunion. Also retired from SMS, he answered Harvey's call and they sold an "FM" deal to run Good Sam's data center.

- Harvey started exploring & selling other deals and built NewCo up by recruiting a slew of former SMS "King of Prussians," including:

    - Karl Sydor – who sadly left our firm to be Harvey's 2nd employee

    - Fred Abel – an old buddy of Harvey's from his Naval Air days

    - Terry Macaleer – "Big Jim's" little brother, and another ex-ID

    - John Patton – a superb guy who I originally hired at SMS ≈1975

    - John Schofield – another ex-ID Manger from SMS' NJ office

    - Jim Hall – an SMS veteran who had even been SMS' CEO once

    - Jerry Vogt – a brilliant engineer who built SMS' telecom dept.

    - Randy Sprau – one of the best & brightest in programming…

Eclipse of Alltel

- At first, NewCo was known as "Integrated Healthcare Solutions," but soon their marketing mavens came up with a name that eclipsed their competitors and left them:

- As did **Eclipsys'** acquisition of Alltel for $200M in '97, giving them a client base of ≈250 of the largest & most prestigious HIS clients to sell on their growing array of products.

- **Eclipsys** next embarked on an acquisition binge that included some the leaders in many niches.

- Time & ppt space will permit us to cover only a few of the largest:

Spinning?

Is trying to keep up with the challenges of providing high-quality, cost-effective care throwing your operations off balance and sending you spinning? It isn't made any easier by the increasing public scrutiny on the need to reduce avoidable medical errors, and new HIPAA regulations for data security and access. Implementing change in a complex environment is always hard.

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Let us help you make a difference as well.

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Eclipsys' Buying Binge

- **Eclipsys acquires patient flow software firm**
  - December 31, 2008 – Eclipsys acquired patient flow software firm <u>Premise</u> of Farmington, CT, for $38.5 million cash.
- **Eclipsys completes $45M acquisition of MediNotes** in 2008
  - a provider of physician practice information solutions
- **Eclipsys Acquires Enterprise Performance Systems, Inc.,**
  - (<u>EPSI</u>) business performance-improvement solutions.
- **Eclipsys Acquires Sysware** – well-regarded LIS vendor
  - Including 130 software development personnel in India.
- **Eclipsys Acquires Radiology Division from eLynx**
  - Montreal, November 2004—eLynx Medical Systems
- **Eclipsys Acquires Transition Systems, Inc. ("<u>TSI</u>"),** for DSS/EIS
- **Eclipsys Corporation acquires <u>SDK</u> Medical Computer Services Corporation**, provider of patient accounting systems

But Wait, There's More!

- **1996: Eclipsys** entered into a license with Partners Health Care System for the BICS clinical information systems software developed at the Brigham and Women's Hospital, in Mass.

- **1998: Eclipsys** Corporation acquires Emtek Healthcare Systems, a division of Motorola, Inc., for critical care sys.

- **1998:** Eclipsys Corporation acquires HealthVISION, Inc. (acquired by Transition)

- 1999: Eclipsys Corporation acquires PowerCenter Systems, Inc.

- **1999: Eclipsys** Corporation acquires Intelus Corporation and MedData Systems, Inc., subsidiaries of SunGard Data.

- **1999: Eclipsys** Corporation acquires MSI Solutions, Inc. and MSI Integrated Services, Inc. (collectively, "MSI")

All told, Eclipsys spent over $500 Million on these acquisitions - no wonder they dropped the name *Integrated* Healthcare Solutions!

MS "Integration"

- Actually, right after Y2K, Eclipsys jumped on Bill Gate's .Net bandwagon with their "XA" version of Sunrise to try to bring all these disparate data bases, OS-es and programming languages together.

- By Y2K, Eclipsys boasted over 1,500 FTEs & about a *thousand* clients, thanks to the menagerie of systems they had acquired:
  - 250 from TDS, 75 SDK, 300 TSI, etc.

    Becoming a prime target themselves…

- So, there you have the first two convoluted parts of the story:
  - "Lockheed-MIS-Technicon-TDS-Revlon-Alltel-Systematics," and
  - "NewCo-IntegratedHealthcareSystems-Eclipsys" and acquisitions

- Next week, **ALL** things simplify as we reach the end of the **SCRIPT**.

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Eclipsys is The Outcomes Company®. Now, with SunriseXA, Eclipsys provides you with even more powerful tools to balance your outcomes, reduce errors, improve efficiency, reduce cost and enhance customer satisfaction. *That* is the promise of information technology. *That* is what SunriseXA delivers.

SunriseXA: Built for tomorrow...available today.

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H.I.S.-tory

by Vince Ciotti

Episode #93: Allscripts

Part 3

It's *All* in the *Script*!

- We left off last week with Eclipsys gobbling up half the firms in the industry, so it's only fair what happened to them in 2010:

Allscripts to Acquire Eclipsys for $1.3 Billion, Misys to Sell Its Stake

June 9, 2010   News   25 Comments

"**Allscripts** announced this morning that it will acquire **Eclipsys** for $1.3 billion in an all-stock transaction. **Misys** PLC, the 55% owner of Allscripts, also announced that it will sell most of its interest in the company… reducing its holdings to less than 10% of the merged companies."

- So what is the HIS-tory of **Allscripts** and their partner **Misys/Medic**? Hold on to your mouse, as these firms themselves were formed by a bewildering maze of mergers and acquisitions that stretch ppt limits:
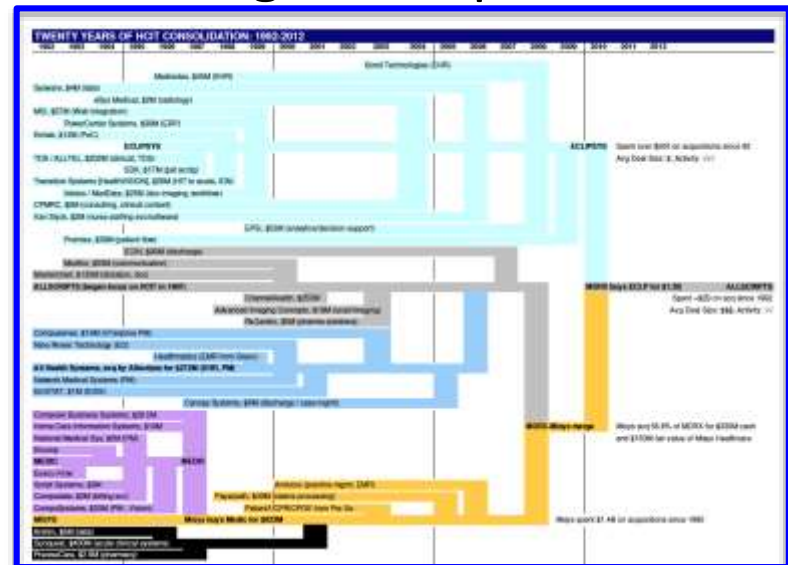
Way back in 1986...

- Allscripts originally got its start in 1986 by selling prepackaged meds for physicians to dispense right in their practices.

- The idea caught on very well, and the company later unveiled its first software product, an e-prescribing system, in 1998, beating one of today's MU requirements by over a decade!

- However, neither the meds nor the e-prescribing would have ever earned them enough dough to acquire Eclipsys for over $1B. That capital was earned by another complex name in HIS-tory: **MISYS**.

- **Misys** was a UK-based firm that was originally dominant in banking & manufacturing in Europe and bought its way into the US healthcare market, much like **Ferranti** (episode #64 at hispros.com).

Medic Computer Systems

- **Misys** set its US sights on **Medic**, itself a conglomerate that was originally was founded in 1982, offering practice management (PM) systems first to *small* physician practices (avoiding IDX' dominance of *large* practices). At its peak, **Medic** Computer Systems claimed installations across the country serving 70,000 physicians in more than 12,000 locations. In addition to its "Vision" system, which ran on **IBM** RS/6000 "RISC" minis, **Medic** also offered practice management solutions via MEDIC "Tiger," MEDIC "PM," as well as clinical solutions with AutoChart. These systems were developed or came from a number of vendor acquisitions including:

  - Home Care Information Systems (HCIS), from NJ, one of the first laptop PC-based Home Health Care systems.
  - Elcomp Systems in 1994, from Pittsburgh, PA, for ≈$5 million.
  - Script Systems in 1995 from Princeton, NJ , for ≈$3 million.

- Plus Elco, National Medical, Compudata, CompuSystems, etc.

MISYS Mega-Merger

- So it was pretty big news when early in **"1997 Misys and Medic Computer $922.8 Million Merger"** was announced:
  - "**Misys** P.L.C., a large British software company, said yesterday that it had agreed to acquire **Medic Computer Systems Inc**., a leading maker of software for automating physicians' billing and patient records, for $922.8 million in cash, or $35 a share.
  - **Medic** has flourished by concentrating on systems used in managing physician group practices. These systems, though typically smaller than hospital installations, are considered an easier sell because many of the doctors groups have not previously invested in big computers and proprietary software.
  - Based in Raleigh, N.C., **Medic** has more than 1,400 employees. In the quarter ended June 30, the company earned $6.2 million, or 24 cents a share, on revenue of $60.3 million."

But Wait, There's More!

- If you're getting confused, don't blame me, I'm just the messenger. The combined firm was known as **Misys Healthcare** in the US, and needless to say, they acquired many firms, including **A4** in 2006:

  - Remember <u>Skip Shippee's</u> "MSA" (Management *Systems* of America, not Management *Sciences* of America – the ERP giant)

  - They built one of the first mini-based HIS systems on Microdata boxes, another UK firm that McAuto eventually got the rights to to make their Mini-based Hospital System (MHS) around 1980.

  - MHS didn't sell too well, and MSA got the rights to their system back, eventually selling out to the employees in as "ESOP" with the creative name of **A4** (All the *systems*, all the *time*, etc.).

  - **A4** acquired its "Healthmatics" EMR from pharma giant Glaxo, as well as its practice management system for small to medium-sized practices. It also bought a leader in a red-hot niche today:

    - EmSTAT's emergency dept. information systems (EDIS).
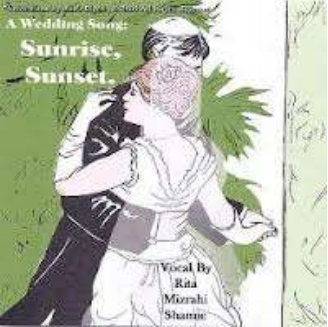
The sun sets, and rises…
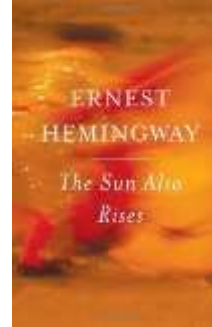
- Now this pun should knock you out: in 2001, **Misys** bought LIS giant **Sunquest**, who along with SCC Soft ruled that niche after Cerner moved into HIS/EMRs. In 2007, **Misys** sold **Sunquest** back, followed by its huge 2008 deal:

  "Allscripts & Misys Announce Merger -

  In a deal estimated to affect more than 150,000 U.S. physicians and 700 hospitals, Allscripts and Misys Healthcare have announced a merger, giving British-based Misys Plc a 54.5 percent stake in the combined company, in which Raleigh, NC-based Misys Healthcare will be folded into a wholly owned subsidiary of Allscripts."

  - So what's so punny about Misys buying & selling Sunquest just before the merger? Just think of the name of Eclipsys' EMR…

(after these convoluted buys & sells, it will be a pleasure next week to start on a vendor with a *single* product, *never* bought or sold!)

Picture's Worth a Thousand Words?

- Not sure just how many words were in the last 3 weeks episodes on Allscripts (*too* many?), but here's the origin of their products:

Allscripts Products HIS-tory Time-Line

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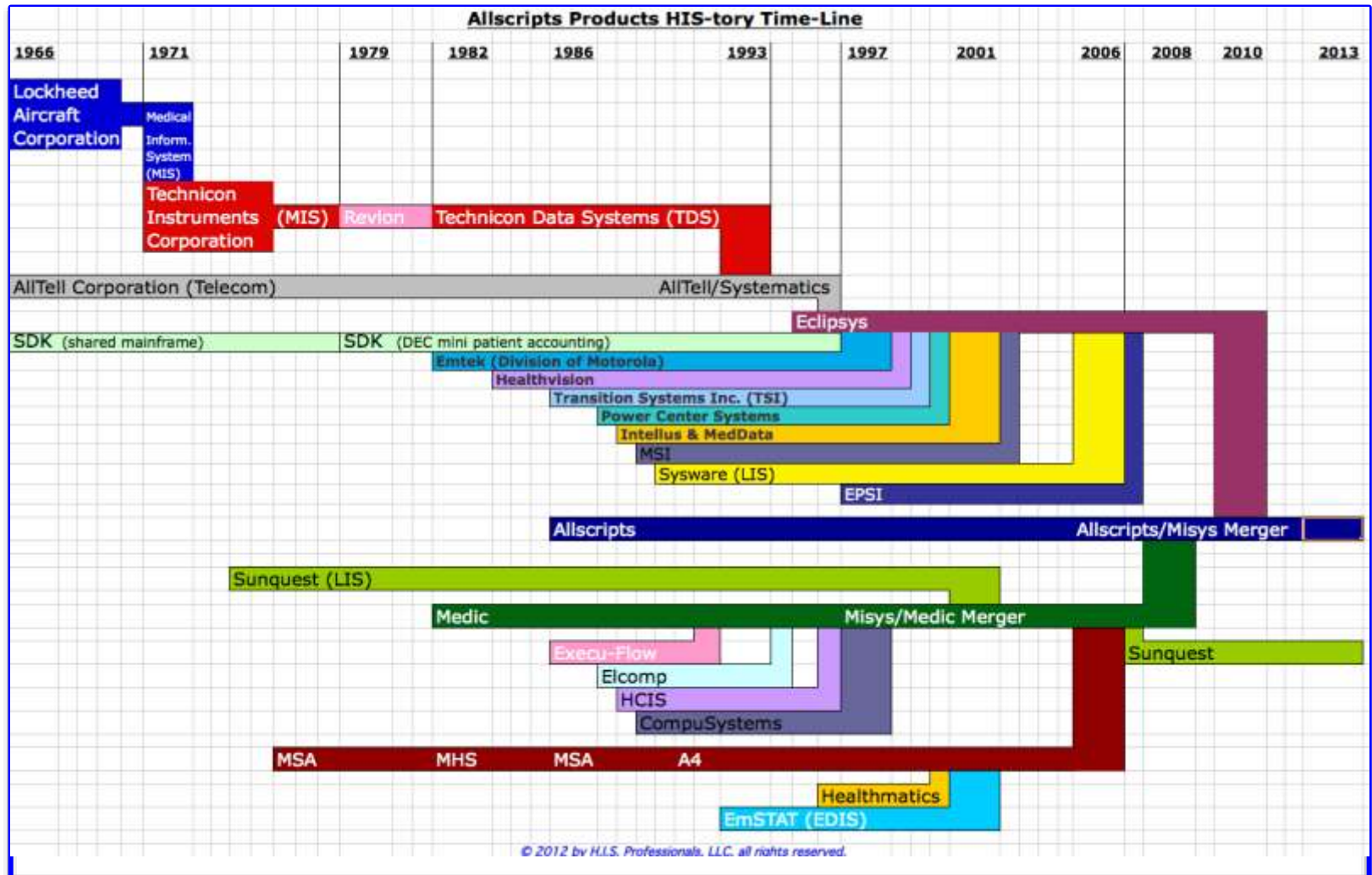
- Took you 2 minutes (seconds?) to read it, took me 2 *hours* to build it!

H.I.S.-tory

by Vince Ciotti

Episode #95: **Epic,** Part 1

- This week we continue the HIS-tory of **today's** vendors with **Epic**, whose 2012 annual revenue of $1.5B places them in 4th place among HIS vendors:

  1. $3.2B = <u>McKesson</u>, née HBOC = Walt Huff, Bruce Barrington, & David Owens
  2. $2.6B = <u>Cerner</u>, *still* run by Neal Patterson, co-founded with Cliff Illig
  3. $1.8B (est) = <u>Siemens</u>, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde
  4. $1.5B = <u>Epic</u>. Gee, I have to wonder, just **who** was it who founded them?
  5. $1.4B = <u>Allscripts</u>, née Eclipsys, also founded by Harvey Wilson of SMS.
  6. $850M (est) - <u>GE Healthcare</u>, née IDX/PHAMIS: created by Malcolm Gleser
  7. $597M = <u>Meditech</u>, *still* run after all these years by Antonino Papallardo
  8. $375M = <u>NextGen</u>: née Quality Systems Inc. founded by Sheldon Razin
  9. $183M = <u>CPSI</u>, founded by M. Kenny Muscat & Denny P. Wilkins **(who??)**
  10. $156M = <u>**HMS**</u> (Healthcare Management Systems), Tom Givens & John Doss
  11. $150M = <u>Keane</u>, parent giant by John Keane, but HIS div. built by Ray Paris
  12. $106M = <u>QuadraMed</u>, née Compucare, founded by Sheldon Dorenfest
  13. $75M (est) = Healthland, formerly Dairyland, founded by Steve Klick

The *Human* Side of HIT

- My tongue-in-cheek wisecrack on the preceding list about "…just *who* was it who founded them?" sets up this intro to Epic. It is easy to Google tons of data on HIS vendors and, indeed, I could never have written *half* of this HIS-tory without Bing, Wikipedia, etc.

- But thanks to the popularity of HIS-talk, I've been able to get in touch with the founders of many pioneering HIS firms such as:

  - John Sacco of **JS-Data** (who I even dined with in Nice, France!), Dave Lasky & Mitch Pomerance of **Dynamic Control Corp**., Ray Paris of **Keane**, Steve Klick of **Dairyland**, Kenny & Denny of **CPSI**, Doss & Givens of **HMS**, Ron Apprahamian of **Compucare**, etc.

- Indeed, it is their *human* side of these HIS-tories that I hope has made this series far more interested than just market share stats.
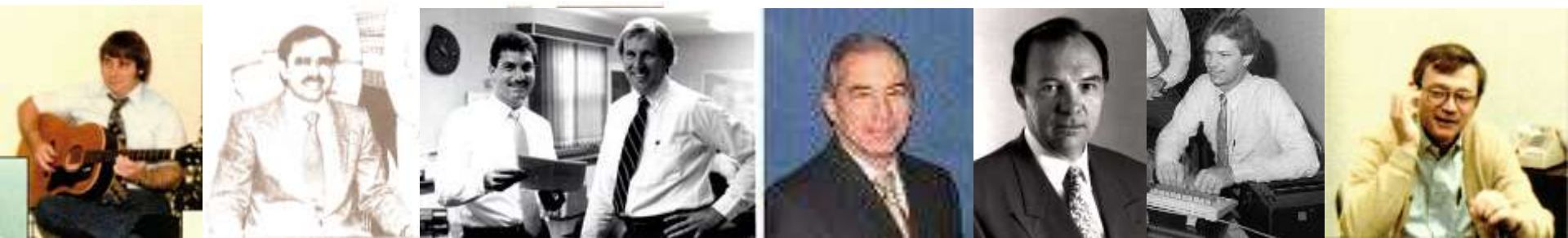
View From The Top

- However, few of *today's* vendor CEOs have the time or interest in telling the story of their firm, usually relegating my requests to their marketing departments who generally requested the right to edit my work, which I always refused (not even Mr. HIS-talk has never asked for that right – he lets me tell my tales uncensored!).

- Worse, the higher up in the list of today's vendors, the harder it has been to get any answer from the top execs, who generally have a cadre of assistants in admin to screen all such requests.

- So when I got to **Epic** this week, I paled at the possibility of ever getting through to Judy Faulkner, not only because we have never met, but because of the many critical rants I have posted on this and other blog sites about her "cult" of followers, the lemming-like rush of large IDNs to EpicCare, high costs, etc.

  And, to be honest, I've got a pretty nasty side myself!

Electronic Supplication

- So, I decided to give it the old college try, and shot the email below out to Judy, just like the number of un-answered requests that I sent to other top executives of today's leading HIS firms:

  – **From: Vince Ciotti [vciotti@hispros.com] ⌷SEP⌷Sent: Wednesday, May 15, 2013 4:13 PM⌷SEP⌷To: Judy Faulkner⌷SEP⌷Subject: Epic HIS-tory**

  Judy,

  I hope you recognize my name: I've been writing the "HIS-tory" of our industry for Mr. HIStalk over the past year on his wonderful blog site. Hope you've seen and enjoyed them? This year, I'm covering the history of today's leading vendors, of which Epic is way up near the top. I would like to chat with you about how you formed Epic and its amazing success story. By luck, I'm on my way to Wisconsin to visit a client hospital *today,* and could come by Verona in person if by any miracle you have any spare time this Friday 5/17? If not, I'd be glad to chat by phone any time you're free over the next few weeks...

  Regards, Vince

What?!

- To my utter amazement, I received the following reply *that night*:
    - **From: Judy Faulkner**
    - **Date: May 15, 2013 9:41:36 PM EDT**
    - **To: Vince Ciotti vciotti@hispros.com**

    Vince,

    I'd be delighted to see you.   Would sometime between 2 and 4pm this Friday work for you? How long do you think we need?

    Judy

- I was so surprised, I shared this news with a circle of friends who are CIOs at large facilities that were forced to undergo the agony of one of our "IT Assessments" with the Hunter Group, Navigant, Insights, etc., and became my friends *in spite of* our tough critiques of their IT shops. Amazingly, *every one* had gone over to **Epic** over the past few years so I figured they knew Judy well…

What I Expected…

- And these aren't just "any old" CIOs: they are the *very best* I have met in over 25 years of HIT consulting so I respect their opinions; here's the email I sent them describing my interview with Judy:

    From: Vince Ciotti

    Sent: Friday, May 17, 2013 8:11 PM

    To: W Laker, S Reel, E Marx, B Reese, L Witherspoon, C Belmont

    You folks all know Judy so much better than I, and probably wonder at why I've been such an adamant critic of Epic over the years... I guess my years with The Hunter Group jaded me on *any* expensive system. Well, as the exchange below shows, she was gracious enough to host me for 2 hours today in Verona to discuss the history of Epic, and I went in expecting the usual sales & marketing treatment:

    - **an executive secretary ushering me into a luxurious private office**
    - **a host of VPs scurrying around at the CEO's beck and call**
    - **all over-dressed to the 9's in in formal business attire**
    - **handing me a stack of marketing brochures & annual reports**
    - **followed by the corporate shtick, then a VP giving a ppt pitch**

What I Found...

Well, as I sat in the lobby a little early working on my laptop, here she came in person, down the hall, comfortably dressed, welcoming me with a sincere hello and banter about the Wisconsin weather. We met in a small, homey meeting room nearby, where she simply started answering my questions about her background and the history of Epic with little or no sales bs that my sharp radar could detect. Just a charming, straight person, looks you in the eye, tells you exactly what you want to know, and makes you feel important and welcome.

I must confess, I've sat with many vendor CEOs in our biz over my 40+ years, but this has to be the most *human* one I've ever met. If the proverbial "stranded on a desert island" scenario ever came to pass, she'd be the one! Now I know why you're all her customers...

Watch for the HIS-tory episodes on Epic on HIStalk that will start in about a month - they'll be epic!

Vince

Their Replies

- Here is how each of these elite CIOs reacted to my email:

    – **From: "Marx, Edward"**

    – **Date: May 17, 2013 8:53:35 PM CDT**

    – **To: Vince Ciotti <vciotti@hispros.com**

    – **Subject: RE: Epic HIS-tory**

    Vince

    I had the same expectation when I first joined Texas Health (an Epic client) and made the trip to Mecca for an exec visit with my new "bosses." She amazed me. I learned much in my time with her. And that relationship and growth and respect has grown over the years. She remains humble. Last CHIME she sat in on my session and then afterwards spent 30 minutes just chatting about the talk, industry, etc. And Epic remains in good hands with her #2 Carl. Same thing...an engineer who is humble and smart.

Johns Hopkins

From: Stephanie Reel

Date: May 18, 2013 7:14:54 AM EDT

To: Vince Ciotti

Subject: Re: Epic HIS-tory

Your notes are truly touching. And honest! I could not agree more with your assessment. As you probably know, we signed our first contract with Epic, and Judy, in 1990. I was impressed then, and I am more impressed now - with the integrity, commitment, candor, professionalism, and accountability Judy, Carl, and the Epic team embody, In 1990, I was provided with home phone numbers for all 35 employees - just in case we needed something or had an issue that needed special attention. Nothing has changed - other than the number of employees!!! I could go on......

Thanks,

Stephanie, Senior Vice President and Vice Provost

Ochsner's CMIO

Lynn Witherspoon, M.D.

From: "Lynn Witherspoon"

Date: May 20, 2013 9:26:05 AM EDT

To: "Vince Ciotti"

Subject: Epic HIS-tory
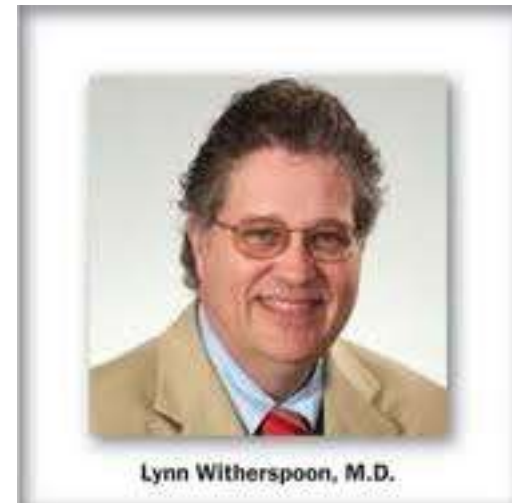
I'm glad you made the connection - clearly Epic isn't the answer to everything but for large systems looking for a quasi-integrated solution I don't think there is any better. I have been impressed with the personal attention I receive - anybody from Judy down is responsive. After the major implementation dust settled my contacts are a sturdy as before. Everything from planning the next major upgrade, the nuts and bolts of meaningful use Stage 2, getting ready for HIMSS Level 7 recognitions, Health Information Exchange and interoperability, questions and concerns about content. This has been a most unusual experience and continues to be. And of course the User Group Meeting in the fall and Spring Council meetings are extraordinary for their content. Hope all is well with you.

Best, Lynn

Ochsner's CIO

From: "Chris Belmont"

Date: May 18, 2013 8:01:31 AM EDT

To: vciotti@hispros.com

Subject: Re: Epic HIS-tory

Like you, Vince I have worked for or closely with probably all of the major vendors. Interactions with their executives were exactly as you explained. My three plus years dealing with Epic was the first that I felt true partnership. The overall quality of the relationship, staff and product is what I have always pursued and what our industry needs. Some companies have one or two but epic has all three and more. I have regular calls with Judy and Carl has called on several occasions. As Stephanie said, this culture filters through the entire organization. I hoped that others would catch on but have seen zero indication that they get it. Take care. Glad you like the Kool-Aid. It's no Jim Jones' recipe. It's good stuff.

Franciscan & Sentara CIOs

From: Laker Bill

Date: May 20, 2013 8:40:10 AM EDT

To: Vince Ciotti

Whoa, are you sure you they didn't spike your drink with some of the Kool-Aid? J I do agree that she is a very nice lady with a very honest and direct way of communicating. Refreshing as compared to most other vendor executives.

Bill L

From: BERT REESE

Date: May 18, 2013 9:02:12 AM EDT

To: Vince Ciotti <vciotti@hispros.com

Subject: Re: Epic HIS-tory

......simply said.... it is my honor to call Judy my friend

Stay Tuned...

- So, next week I'll start the story of this amazing lady and the firm she built from scratch in 1979 with 3 FTEs and a $70K bank loan, leading it to become the 4th largest vendor today with over a billion dollars in annual revenue and 6,500 employees worldwide.

- Truly an epic tale...

H.I.S.-tory

by Vince Ciotti

Episode #96: Epic, Part 2

An Epic Tale

- The story of **Epic** starts with its founder, <u>Judy Faulkner</u>, with whom I have a bit in common:

  - She too came from Philly, where we both remember dodging the red SEPTA trolleys!

  - We both were math majors, with English minors, she at **Dickinson College** in Carlisle, PA not too far from her father's drug store in Erlton, South Jersey, near Haddonfield.

  - We both won scholarships in the '60s, but that's where the resemblance ends: I flunked out of **Temple** & got drafted to 'nam, coming back to school later to major in English Lit.

  - Judy studied Radiation Physics at University of Rochester – sound familiar? <u>Neil Pappalardo</u> of **Meditech** came from Rochester and as we'll see, had a surprising impact on Epic...

It Was All in the Program…

- When she showed up at U of Rochester, they expected her to program. She knew nothing about it so they gave her a Fortran book and access to the computer for a week. She was on her own, and fell in love with it, feeling "like a kid playing with clay" – it was combination of language, math, and art: her 3 passions.

- She earned a masters in math at the U. of Wisconsin in the frozen northlands, and won a fully paid-up PhD in computer science. She never finished her dissertation, but years later UW surprised her with an honorary doctorate.

- So here's *another* HIS vendor starting in the frozen north, besides:

  - IBM's SHAS in Minnesota, Frank Poggio's **HMDS** in Madison, Steve Click's **Dairyland** in Wisconsin, **CliniCom** in Boulder, **Meditech** & **Keane** in Massachusetts, **IDS** in Vermont, **PHAMIS** in Seattle, **Lockheed's** MIS pilot at the Mayo Clinic in Minn…

What is it with the frozen north and so many HIS start-ups??

"Bi-Polar" Geographic Theory

- Judy had noticed this trend in the northern origins of HIS vendors too, and we bandied about an interesting theory that has many historical/geographic parallels:
  - Think of how many countries around the world are split between an *industrial* north vs. a more *agricultural* south:
    - <u>US </u>(Yankees vs. Rebels)
    - <u>Italy </u>(Milan vs Sicily)
    - <u>Vietnam </u>(Hanoi vs Saigon)
    - <u>Korea </u>(Pyonyang vs Seoul)
  - *Are we on to something??*

Meditech Connection ("Epitech?"

- Back to Epic, Judy took a class in "Computers in Medicine" taught by UW's <u>Warner Slack, MD</u>, who went to the Beth Israel Medical Center, an associate of <u>Neal Pappalardo</u> from the MIT project that gave the IT world its most contagious disease: **MUMPS**.

- Even the acronym denotes its origins as one of the only programming languages designed specifically for Healthcare: *Massachusetts General Hospital Utility Multi-Programming System*, the only language with its own "built-in" data base.

SYMPTOMS OF MUMPS IN ADULTS

CLICK HERE TO CONTINUE

- As you may remember, Pappalardo created his own version of MUMPS that he used with his new start-up firm "**M**edical **I**nformation **T**echnology," (pun on his school?), which he called **MIIS**, short for "**MEDITECH's** **I**nterpretive **I**nformation **S**ystem." And so Judy started her programming in **MIIS**, just like Ron Apprahamian did at Compucare (episode 69 at hispros.com).
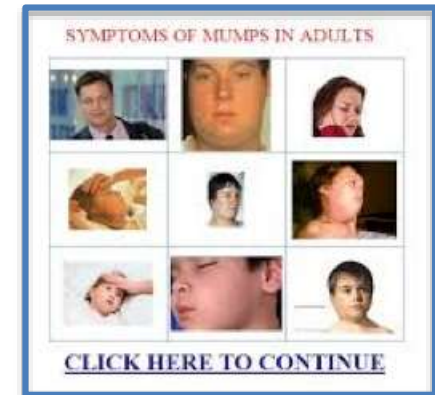
First Work Assignment

- After grad school, she worked with <u>John Greist MD</u>, on a project at the U. of W. to build a system to *track clinical data over time.* This was a radical idea in the early 70s, since there were no dbms available back then (Ellison didn't form Oracle until 1977…), only a few small, unknown ones, such as the one from Beth Israel.

- Judy built a system that put the patient at the center, surrounded by reports, displays, etc. An innovation was to place "exits" all through the code so it could be easily customized.
  - This kept the source code sacrosanct, using exits to modify the system for individual clients. Most MIIS vendors without exits had to change the source code itself to customize their systems.

- She wrote 3 discrete data sets: (1) <u>constants </u>(eg: patient #), (2) data that <u>occasionally changed </u>(eg: diagnoses), and (3) data that was <u>constantly changing </u>(eg: TPR). In essence, this structure is the underpinning of the "Chronicles" data base **Epic** uses to this day!
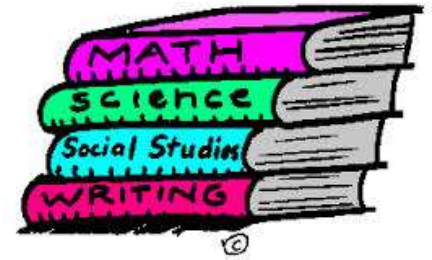
Careful How You Pronounce This…

- You can visualize this time-oriented db structure by these charts presented at the 1978 MUMPS User Group by Judy & colleagues:

- As you might imagine, the acronym "PISAR" did not catch on…

First Applications & Big Raise!

- Somehow I had the impression that Judy started writing systems for her husband, a pediatrician, which explained Epic's strong physician practice modules. I was surprised to learn Gordon didn't become an MD until long after he got his biology Ph.D., and Judy was well down the road toward writing applications for a number of ancillary departments at the University Hospital, including:

    - Inpatient ICU, Psychiatry, Tumor Registry, OB Gyn, Rehab, and

- So it was working with end *users* in these various departments that taught her about health care day-to-day inside operations.

- These apps worked so well, she was given a raise in 1975 from $5 to $10 an hour!

- Even at this "high" rate, she didn't earn much because she set things up in Chronicles so quickly, eg: Ophthalmology hired her to write a system they thought would take 6 months, she finished it in 45 minutes! So to start making a decent living, she formed a company:

Human Services Computing, Inc.

- In March of 1979, with $70K in capital partly raised by selling some "inside" stock, Judy formed **HSC Inc**, later changed to **Epic**.

- There were 3 employees, each working about 1/2 of their time per day, so 1.5 FTEs. Their offices were in the basement of an apartment house pictured on the right.

- Their first computer was a "monstrous" DG Eclipse S/130 with an amazing 194 KB (kilo-bytes) of memory and a 50 Meg disk drive!

- They bought used desks for about $50 each, and started writing systems for a number of early clients in **MIIS** and Chronicles, such as:

  - Green Bay Mental Health Center

  - Denver Children's Hospital

  - Healthcare International (a chain)

Early Mentors

- Judy was guided in setting up her firm by 2 other HIS-tory heroes:
  - Dr. Phil Hicks, of **LCI**, *the* large-hospital LIS, who made her get:
    - (1) UW's permission, (2) a lawyer and (3) an accountant.
  - Neal Pappalardo of **Meditech**, to whom Judy is indebted for his help in many areas besides **MIIS**, such as policies, forms, etc.
- Which explains so many of the similarities between **Meditech** and **Epic** noted in an earlier episode (#16 on hispros.com):
  - Everyone resides near the corporate HQ, no "field" offices
  - No hardware sales, just software, implementation & support
  - Privately held, no Wall Street pressures for quarterly earnings
  - Hires a lot of young, bright college graduates, *[note – not exclusive - about 1/3 of our hires are experienced]* no outsiders
- And to show her gratitude, ***that*** is why Epic has focused on larger AMCs & IDNS, rarely to Meditech's small to mid-size hospitals!

One More "Super-CIO!"

- Next week, we'll pick up this "epic" tale with their amazing growth in the large hospital AMC/IDN market, but I must first apologize for forgetting one of the best CIOs I worked with in my intro from last week, who kindly contributed the following:

  "You didn't ask me about Judy and we are her second biggest customer after Kaiser! But alas, I would have told you the same: smart, diligent, hard-working, works to do the right thing and really listens to her customers. I think you were one of the influencers that made me reject Epic in the day and I definitely resisted joining the Epic "cult." But it has been good albeit a wild ride since last we spoke. We signed with Epic at the end of 2010. And here I am 2.5 years later, going up Big Bang with 3 more hospitals on Epic this weekend. We are up in almost all our ambulatory clinics (over 1900 providers) and as of this weekend, LIVE in 17 acute care hospitals with 16 more to go. It is not perfect and we have years of optimization work to make it what we want it to be, but I don't know of any other system that we could have implemented at the pace we are implementing and getting the results we are getting from a standard build of an integrated system."

  Laureen O'Brien, *Vice President and CIO, Providence Health & Services*

H.I.S.-tory – by Vince Ciotti

Episode #97:

Epic

Part 3

From the **MUMPS** Users Group Quarterly -- 1984

EPIC SYSTEMS CORPORATION

		APPLICATION AREAS INCLUDE	
EPIC	Data Base Management System, Report Generators, Statistics.	Registration	Oncology
ANALYST	Personal Computing	Medical Records	Tumor Registry
SCRIBE	Word Processing	Problem Oriented Records	Rehabilitation
ASAP	Electronic Mail	Primary Care	Nephrology
CALENDAR	Appointment Scheduling	Family Practice	Geriatrics
FINANCIALS	Accounts Payable	Ob/Gyn	Epidemiology
	Materials Management/Inventory	Perinatal	Communicable Diseases
	General Ledger/Budgeting	Student Health	Departments of Health
	Accounts Receivable*	Mental Health	Abstracting
ASSOCIATE	Integrated Clinic Management System including	Ophthalmology	DRG's
	Registration, Medical Records, Order Entry, Billing*,	Cardiology	Case Mix
	Word Processing	Behavior Medicine	Nursing Acuity
PARTNER	Desktop Clinic Management System	Surgery	Dentistry
		Genetics	Veterinary
	*Available shortly	Neurology	
			...and many others

For further information call or write Epic Systems Corporation, 2020 University Avenue, Madison, Wisconsin 53705, (608) 231-2020.

All Epic software is written in the MIIS dialect of MUMPS.

44 MUG QUARTERLY

Vol. XIII, Number 3/4

Another CIO Weighs In

Pleasant Rowland

- Thanks to <u>Daniel J. Barchi</u>, CIO at Yale-New Haven Health System for sharing another "epic" tale (which Mr. HIS-talk also found & published just last week!)

- Seems **Epic** wasn't the only small start-up firm in that same little brick building in Madison back in the 1980s: another young lady entrepreneur (appropriately?) named <u>Pleasant Rowland</u> had a small office there too.

- Pleasant's product wasn't an HIS, but something almost as finely detailed and costly: dolls, the wildly popular "**American Girl**" dolls to be exact

- As another *personal* anecdote in this HIS-tory, my wife has been a major fan of these artifacts for years (to my credit cards' chagrin) – that's her pictured on the left with one of her **American Girl** Xmas presents (my wife is the doll on the right).

Slow Start In The Early Days…

- It didn't all happen overnight: Epic took several *decades* to grow to the market dominance in large AMCs and IDNS it enjoys today. But it was not by the usual heavy-handed sales & marketing techniques followed by most vendors; **Epic** slowly built up steam for its eventual sprint to the top (like the Miami Heat this week!).

- This chart on the right shows the number of clients **Epic** had for each of its first 25 year in business:

- Yes, it actually *dropped* a few years as **Epic** gradually developed its product portfolio over time, adding all the applications needed for both hospitals and practices. We'll show the full chart later after tracing some early milestones…

Customers

Year	Customers
1979	4
1980	5
1981	6
1982	7
1983	9
1984	12
1985	17
1986	21
1987	23
1988	24
1989	28
1990	31
1991	28
1992	32
1993	31
1994	36
1995	42
1996	42
1997	44
1998	55
1999	65
2000	69
2001	85
2002	91
2003	98
2004	111
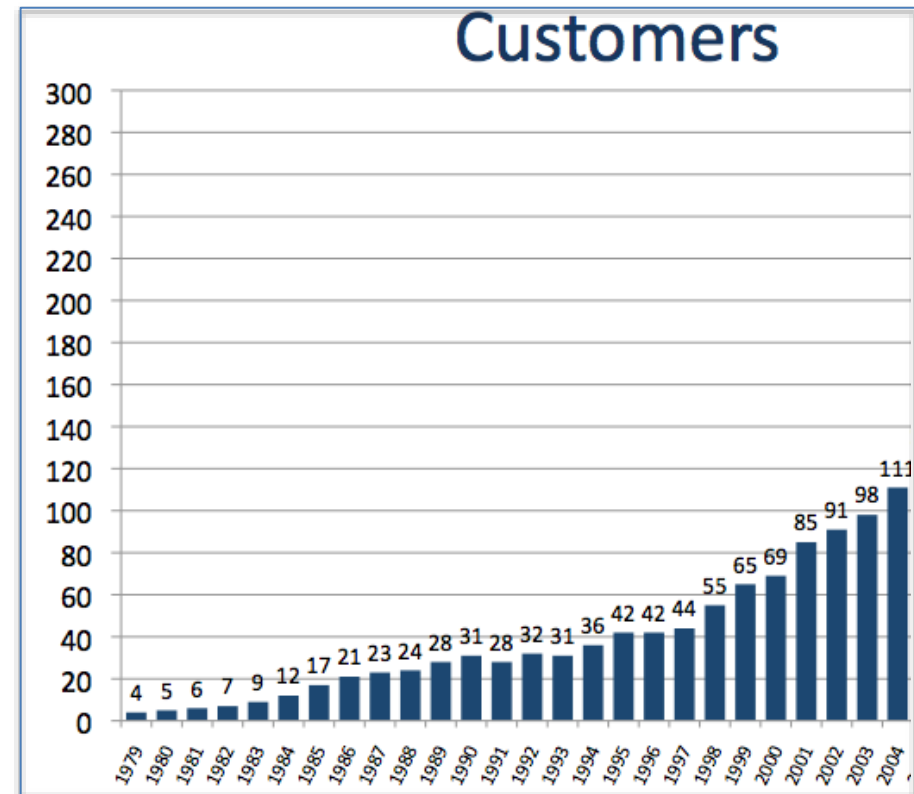
Some Early Landmarks

- 1983 = Cadence Enterprise Scheduling – for access/scheduling.

- 1985 = **Human Services Computing** changed its name to **Epic**.

- 1987 = Resolute Professional Billing – released for practices.

- 1989 = Cambridge, Mass. Harvard Community Health Plan – a huge HMO with 12 medical centers, joined other large clients like the Ontario Ministry of Health and a 490-bed hospital in Brunei.

- 1990 = Moved its 30 workers from the red bricks of 5609 Medical Circle to a former elementary school at 5301 Tokay Boulevard.

- 1992 = introduced the Windows-based EMR called EpicCare.

- 1993/5 – the # of employees grew from 49 to 125, as customers included even more healthcare major players, including: Kaiser Permanente, Johns Hopkins University, and Prudential Insurance.

- 1997 = 200 FTEs generating $31M in revenue and $6M in profit, about half of that revenue in EpicCare sales to 18,000 licensees.

Amazing Growth

- So how did **Epic** grow from 1.5 to 6,500 FTEs, and 4th place in our annual ranking of HIS vendors by revenue, per the chart below?

40 Year Annual Revenue HIS-tory
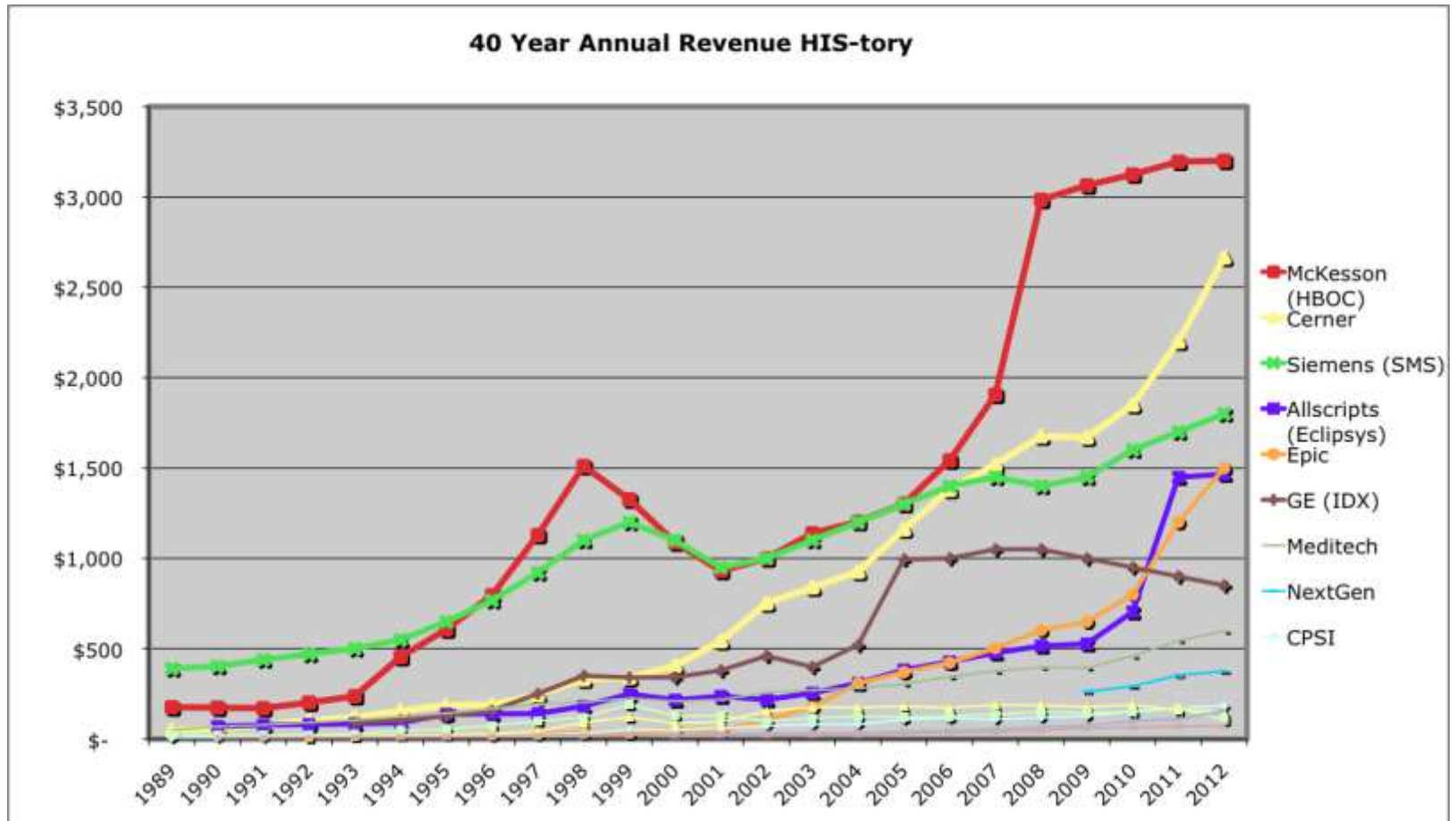
- Surely it was through an 'epic' marketing campaign, right? ***Wrong***!

"Marketing Sucks…Epic Systems"

- Believe it or not, that slogan was actually run on a billboard (or ppt, depending on which source you read) by **Epic** as one of their few formal ads, and Yale's Daniel Barchi shared this inside story:

- When he was searching for a new system years ago, his choice came down to Epic and another leading vendor, that will go un-named. Dan took his C-Suite to visit the 2 finalist vendors' HQs:

  - The un-named firm pulled the usual "Dog & Pony" routine, with sumptuous meals, lavish hotel suites, personal intros by their executives, etc.

  - At **Epic**, they sat around a homey meeting room questioning actual young front-line programmers, while Judy wandered in and out periodically…

- Dan remembers one young, casually-dressed guy the most for his knowledge and ability to explain complex technical subjects: he learned later it was Carl Dvorak, **Epic's** #2 then, and president today, who never formally introduced himself nor gave his impressive title!

"Anti-Marketing" Strategy

- This low-key, *non*-marketing approach was one of the main reasons for many of **Epic's** sales successes, including the huge Kaiser deal:

  - <u>John Mattison</u>, Kaiser's CMIO for S. California described the final stages in their system search in 2003 in a Forbes article:

  "A team of MDs, RNs and IT specialists visited hospitals that used Epic and Cerner. Only one small hospital in Waco, Texas was on their Epic itinerary. Cerner minders selected who the Kaiser team could talk to, while Epic didn't interfere. When the team tried to break away from the scripted presentation, Mattison and his colleagues heard less than flattering comments about Cerner - Mattison called them 'suits' - while customers praised Epic. 'For me that was major, to be free to talk,' says Mattison.

  *'They treated you like a colleague, not a customer,' says <u>Jack Cochran</u>, who heads the Permanente Federation, which represents Kaiser's physicians. 'They don't **sell** you.'"*

Vive la Différence!

- As the former <u>Director of Marketing Services</u> at **McAuto** (ads, brochures, proposals, etc) and <u>VP of Sales</u> at **HIS Inc** and **Micro HealthSystem** (the former my great success, the latter my flop), I am just amazed by **Epic's** marketing approach (or lack of same): compared below so hospital CIOs who might never have worked for a vendor can appreciate the contrasting approaches:

EPIC	**Typical HIS Vendor**
• Only a *handful* of sales reps (out of 6,500 employees)	• Huge sales staff (**Meditech** = ≈135 out of 6,000 FTEs)
• Paid primarily on *salary* (some year-end bonuses)	• Small salary, **high** commission (3-5%), with large sales quotas.
• *Never* any ads in magazines or blogs, nor paper mailers	• *Huge* ad budgets and incessant mailers & emails to prospects.
• No *regional* sales offices, all US FTEs work in Verona, speaking "Wisconson-ese"	• *Dozens* of sales offices around the US staffed with "locals" who know the turf/dialect

RFP Responses vs. "Applications"

- Most HIS vendors also have large proposal departments at their vendor HQ whose job it is to answer "yes" (through work-flow engines, screen painters, etc.) to the *thousands* of detailed and sometimes inane questions (eg: "Is the system user friendly?") in reams of "RFP Feature Checklists" they receive. By contrast Epic carefully selects those (few) RFPS it chooses to responds to.

- Frank Poggio shared this story about Epic's sales philosophy:

    - He was a panel moderator at the 2002 HIMSS conference with leading vendor CEOs: Harvey Wilson (**Eclipsys**), Rich Tarrant (**IDX**), Neal Paterson (**Cerner**), Pam Pure (**McKesson)**, etc., and asked each CEO how they market their products. Each CEO gave an impressive answer about how they have the "best & brightest" in their sales org, and invest so heavily in R & D, etc., etc. When it was Judy Faulkner's turn to speak, she said:

    "Our clients don't select us, we select each other"

Did it Work?

- Here's the full chart of Epic's client growth from 1979 to today, showing how well this radically new approach to S & M paid off:
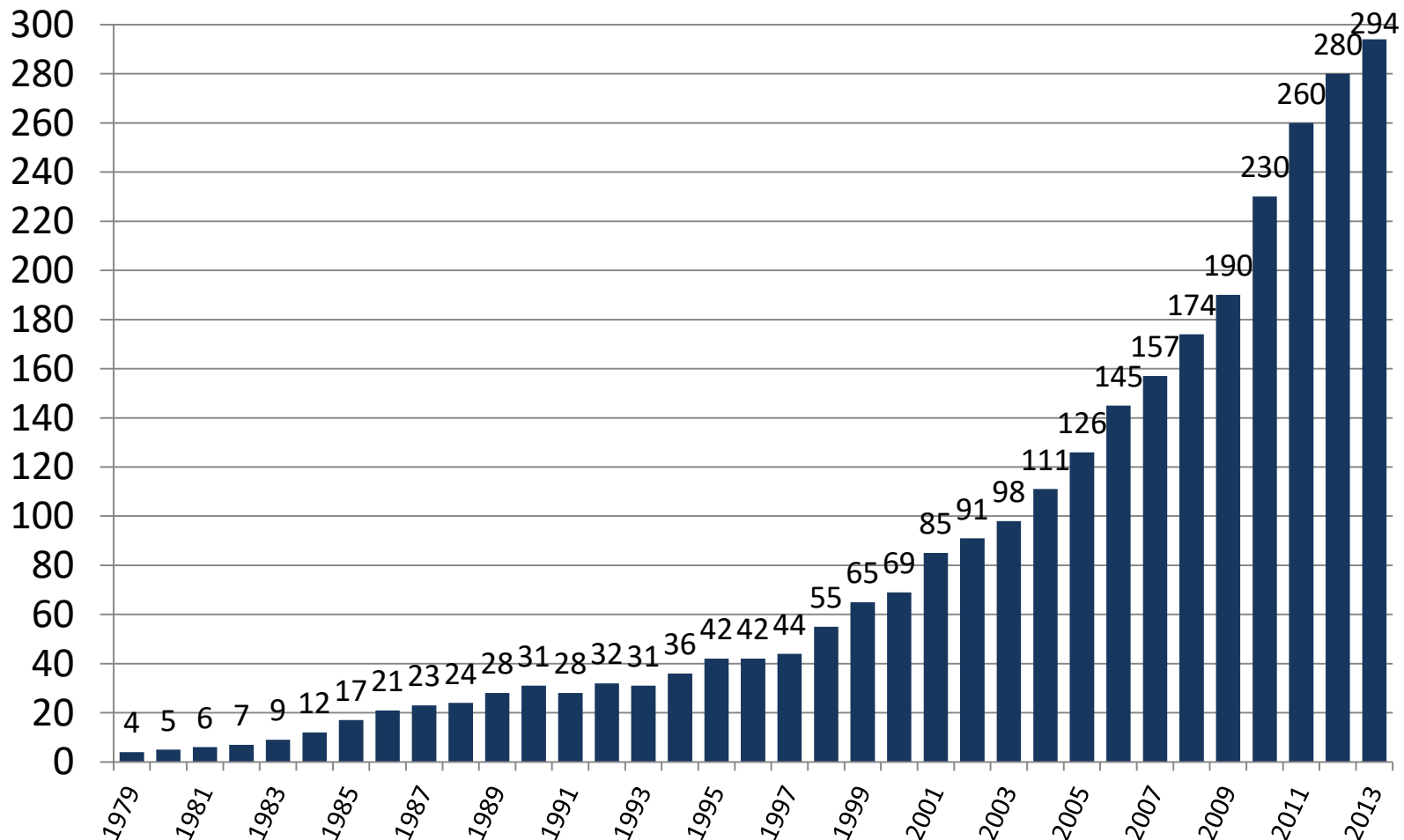
H.I.S.-tory

– by Vince Ciotti

Episode #98:

Epic
Part 4

HSC USERS' GROUP MEETING

EPIC DICTIONARY WRITING
AGENDA

Instructors: Jane E. Taves and Carol G. Dopp

Date: May 24, 1983   Time: 8:30 – 3:30

Place: H S C

8:30 Coffee & Rolls

8:45 Morning Session

      Data Base Definition

      Dictionary Definitions (review)

      Design Techniques
            Organization of Items
            Use of Date and Type of Contact as modules
            How to phrase Item names

      Dictionary Item Creation and Edit
            Creation of small dictionary

12:00 Lunch

      Dictionary Definitions (establish)

      Dictionary Documentation

      List Dictionaryry, List Categories, Forms

      Delete Item, Delete Dictionary

      Applications Add, List, Delete

      Move an Item

      Structure Change

      Tables, EZ Programs

3:30 Close

FORM TCH 5030, 4/29/83, PAGE 1

How Did They Do It?

- Just how *did* Epic win these hundreds of large systems over the past few years?

Something Epic is coming to Ochsner Health System!

Something **EPIC** is here in **Baton Rouge!**

Register for MyOchsner today

We are upgrading our electronic medical record (EMR) system

MyOchsner

Asante Chooses Epic for Electronic Medical Record

OneCare Epic Initiative

Partners Selects Epic

27/Jul/2012 - After months of thorough review and vetting, Partners HealthCare has signed a contract with Epic – a leader in health information technology that specializes in working with academic medical centers and health systems. Design and configuration work for the new electronic health record, called Partners eCare, will soon begin. It is expected to take five years

Epic as electronic

UNC Health Care health record

UNC Health Care Sys
bytes)

partner.pdf — PDF document, 165 kB (169171 bytes)

Baptist Memorial chooses Epic Systems as electronic health records vendor

Duke University Health System Selects Epic

UMHS selects Epic Systems for medical information

Arizona provider selects Epic for $73M EMR roll-out

Jeff Byers

Mar 19, 2010

Yuma Regional Medical Center (YRMC) in Yuma, Ariz., has rolled out a $73.3 million, five-year EMR initiative to enhance healthcare delivery

Was It Tough Leadership?

- Seldom in the annals of HIS-tory has one vendor dominated a market niche like **Epic** has among large IDNs & AMCs over the past few years. The fascinating question is - just *how* did they do it?

- It wasn't just their leader, <u>Judy Faulkner</u>, who clearly rules the roost in Verona (check out this ***men's*** room picture!); she is much more polite and considerate than many vendor CEOs I have worked for:

  - <u>Jim Macaleer</u> - at **SMS** had everyone in King of Prussia *terrified* of him...
  - <u>Chuck Barlow</u> - at **McAuto** was much nicer, but clearly "ruled" *his* HSD!
  - <u>George Weinberger</u> - at **HIS Inc**. in Brooklyn, *brilliant* but demanding.
  - <u>Jim Pesce</u> – at **Micro Healthsystems** – fun over a beer, but '*da man* at work!
  - Don't forget <u>Neal's</u> 5PM pizza memo!
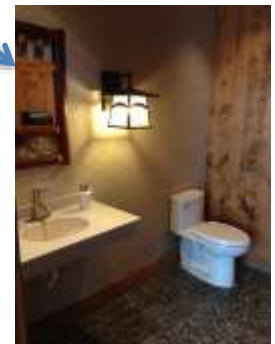
Was It Sales & Marketing?

- The success of many other HIS vendors was due in a large part to their S & M (sic) executives, who combined personal charisma with an uncanny feel for what the market wants to hear, such as:

  - Harvey Wilson – who built the most awesome S&M machine in HIS-tory at **SMS**, and then *repeated* it at **Eclipsys**!

  - Art Randall – at **McAuto**, who sold one-on-one, charmed on the podium, and wrote *hundreds* of magazine articles.

- And there are scores more whose stories would take to long to tell, both mavens from the past as well as S&M powerhouses of today:

  - Past = Bob Pagnotta at MDS, Mike Smeraski at Eclipsys, Frank Pecaitis at Compucare, Mike Freeman at HMS, etc.

  - Today = Stu Lefthes at Meditech, Jim Hall at McKesson Paragon, Troy Rosser at CPSI, Cristi Guthrie at NextGen, etc.

- But as we saw last week, **Epic's** philosophy is "**Marketing Sucks**"!?!?

Was It Price?

- Dominant vendors of earlier epochs in HIS often used price/ performance to separate them form their competitors, e.g.:

  - Shared systems in the 70s made access to a monster mainframe affordable to small & mid-size hospitals who could not afford the 7-figure capital costs from **IBM** & the "BUNCH."

  - Minicomputers in the 80s ran in the 6-figures, finally affordable to run inhouse.

  - And micros in the 90s were so cheap that even critical access hospitals bought them.

- Yet, ironically, **Epic** is clearly the more expensive route to go, as can be attested by any CIO who ran thorough and complete TCO calculations including required staff in user departments…

  - Much like **IBM** in the 60s – far more expensive than Burroughs, Univac, NCR, CDC, Honeywell, GE and RCA.

  - But then, a Lexus costs more than a Toyota (with similar parts)

Was It Architecture?

- Many past leading vendors rode the waves of technological breakthroughs to achieve market dominance in their niche, viz:
  - SMS, McAuto & Tymshare sold over a *thousand* hospitals during the halcyon days of <u>shared systems </u>back in the 1970s.
  - HBO, Dynamic Control and a dozen others rode the wave of <u>turnkey minis </u>to sell *thousands* more in the 1980s & 1990s…
  - At HIS Inc. in Brooklyn, (today part of Siemens as Eagle) we hit **IBM's** <u>mainframe </u>clients with software for their 30XX & 43XXes
- Today, many leading vendors stress their technology approach:
  - **Meditech** has brilliantly re-invented itself every few years with a new underlying platform: MUMPS, MIIS, NT, Magic, C/S, 6.0
  - **Siemens** has made semantic breakthroughs every decade with a new name for time-sharing: RCO, Remote Hosting, "Cloud…"
  - **Cerner's** amazing rise to be the #2 vendor in revenue can be attributed in large part to their shift to remote ho$ting…

Is Epic "Open?"

- There is a constant debate about the word "Open" and what it means to hospitals and vendors, depending on their perspective:
  - Most CIOs would like it to mean a system based on an ODBC-compliant data base such as Oracle (**Cerner**) or SQL (**Paragon**), along with an "open" operating system such a UNIX or LINUX.
  - Such systems make it far easier to build interfaces (with or without an IE), download files to user PCs, and sort/create custom reports of "their" data (on the "vendor's" system!?).
- How does **Epic** rate in this regard? Like most controversial issues we humans fight about, there is a large **grey** swath of answers:
  - With ≈300 of the largest AMCs & IDNs as clients, **Epic** must readily interface to PACS vendors, standalone LIS-es, etc.
  - But is it *easier* to do it with MS' Windows & SQL than with **MIIS** and Chronicles? Depends on who you ask: a client that has done it already, or a competitor losing to them regularly.

The Answer?

- From my perspective watching so many vendors over so many years, the magic (pun intended) lies in this chart from **Epic** detailing the history of their products ("solutions" in newspeak):

- All other HIS vendors today are either "inpatient" the upper part on the chart, like McKesson, Cerner, Siemens, Meditech, GE…

- Or "ambulatory" (an odd term since every hospital treats outpatients too – maybe s.b. "practice"?): Allscripts, NextGen, ECW, Athena, Greenway, etc.

- Yes, many *bought* the other side (eg: Allscripts/Eclipsys, GE/IDX…) but the integration is in their marketing material, not the systems.
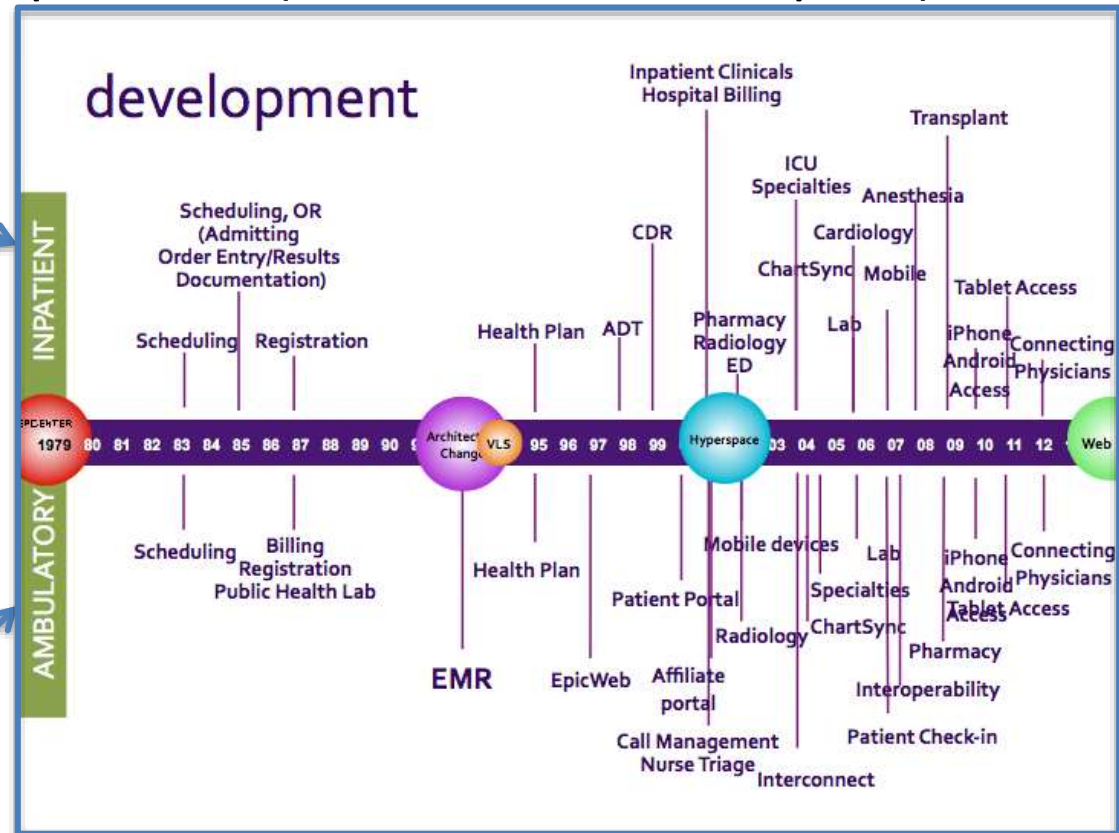
True Integration

- Only **Epic** can give a physician the *identical* system (passwords, screens, menus, reports, data, alerts...) to use in the hospital in the morning, as they use so well in their practice that afternoon.
  - And to continue on the S&M theme, a MD is to a hospital what a salesman is to a vendor: they bring in the bucks!
- Most HIS competitors offer two *different* systems, developed/bought from/by different sources (like GE/IDX, Allscripts/Eclipsys, NextGen/Opus, Meditech/LSS, etc), or one fully developed versus one due in the famous "4th quarter" of some upcoming year (eg: Millennium rocks in hospitals, but rolls in physician practices; Soarian soars in hospital clinicals, but crawls in practices & RCM)
  - And when you're buying an EMR & CPOE, there is no more important user constituency than the medical staff, who have to live with it 24/7, and who have the most clout with your C-Suite.

Any Weaknesses?

- So, is Epic perfect, and will they continue to win every large AMC/IDN deal forever? Heck no, just look at the following evidence:

  – The population of Verona was **10,619** per the 2010 census. Can't these people count?

  – Look closely: ugly **weeds** all over the front lawn at Epic's "Intergalactic Headquarters!" Don't they care?

  – Only **two** cookies? Last vendor HQ that I visited took me to dinner with fine wine at a classy French place in town…

  – **Solar** panels, in Wisconsin's cloudy/short winter days? These people must be out of their frozen minds…

The Other Side of the Coin

- Yes, Virginia, there *are* humans in Verona and **Epic** has its share of problems; to refute those who claim I drank too much kool-aid:

  - <u>Rookies</u> – I'll never forget the damage I did to poor St. Vincent's Hospital in Staten Island when I was a bright but "green" ID at SMS in 1970 who couldn't tell a debit from a credit, and thought charge tickets were for credit cards!

  - <u>Costs</u> – could easily do a page of headlines of some Epic projects that have run over budget, some in 7 and 8 figures or more! Of course, many come in on time and under budget…

  - <u>Weak Apps</u> – even the most hard-working and creative HIS programmers in the world can't make a better LIS than a vendor that does *nothing but* Lab, like Soft or Sunquest…

- But then we could go on with the pros & cons of every HIS vendor and miss the whole point of this HIS-tory: who are these vendors and where did their products come from? The next slide shows clearly what distinguishes Epic from most other vendors:

Vive La Difference!

- Remember the monstrously complex bar charts needed to show the origin of so may other vendors, such as last week's Allscripts:

Allscripts Products HIS-tory Time-Line
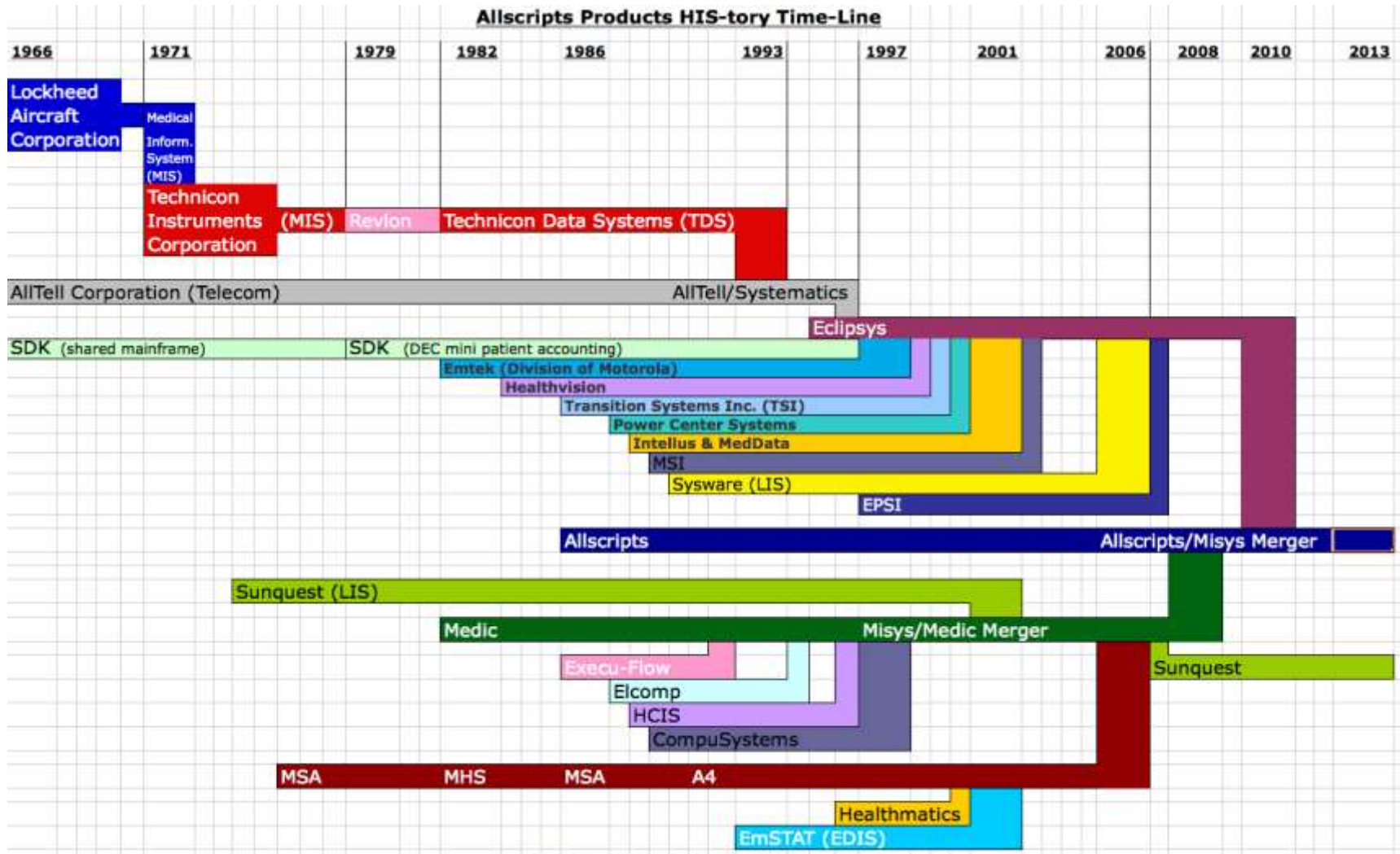
Epic's HIS-tory

- Here's the equivalent roots and evolution of Epic through it's many mergers & acquisitions, and the convoluted origin of its products:

HIS-tory of Epic

1979	1985		2013
Human Services Computing	Renamed Epic		
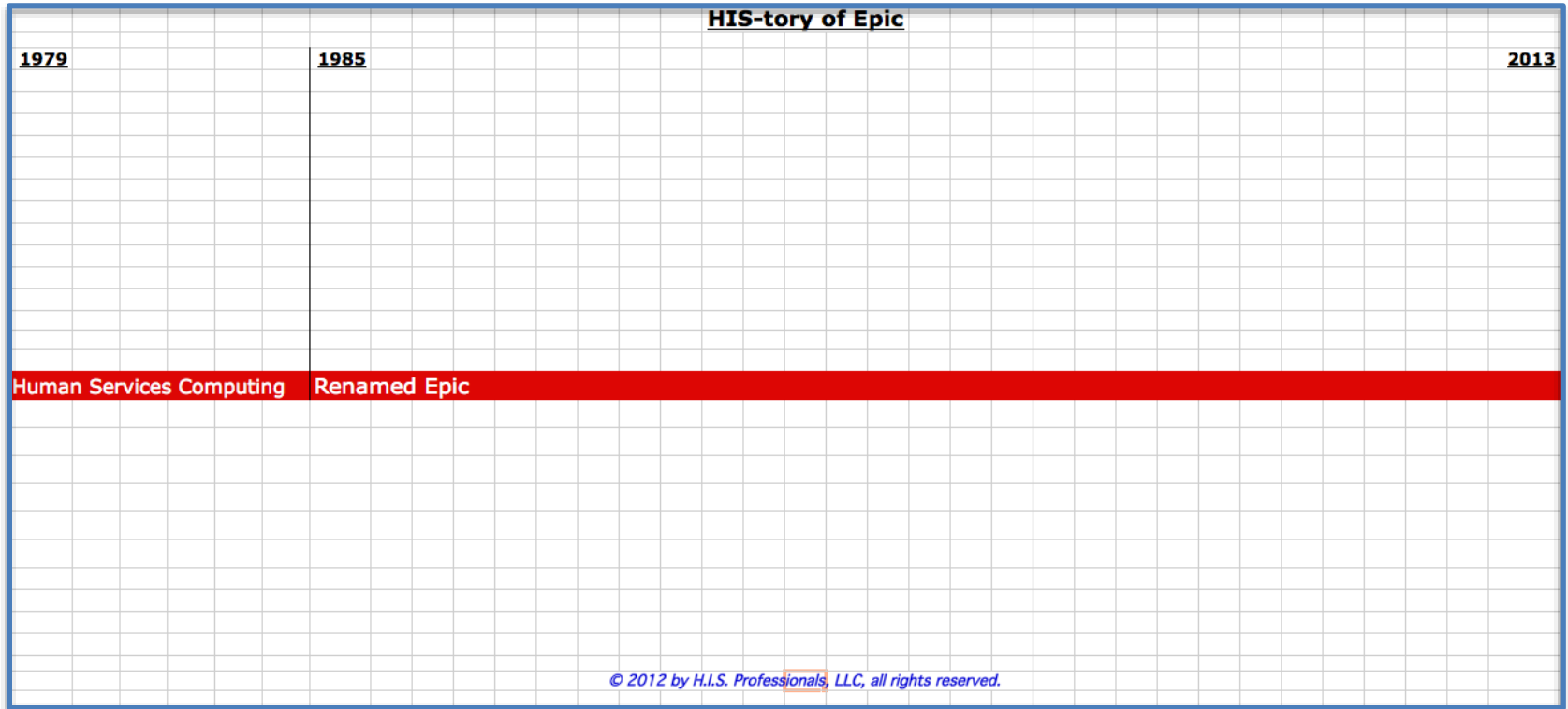
- Next week, on to Siemens (#3 vendor in revenue), for which I need some help: *anyone know the origins of IBM's SHAS (**pre**-SMS)????*

  - vciotti@hispros.com, or if you're as old as me: (505)466-4958

"H.I.S.-tory"

by Vince Ciotti

Episode # 99:
Sad Obit of a
"Mighty Mouse:"

Doug
Englebart
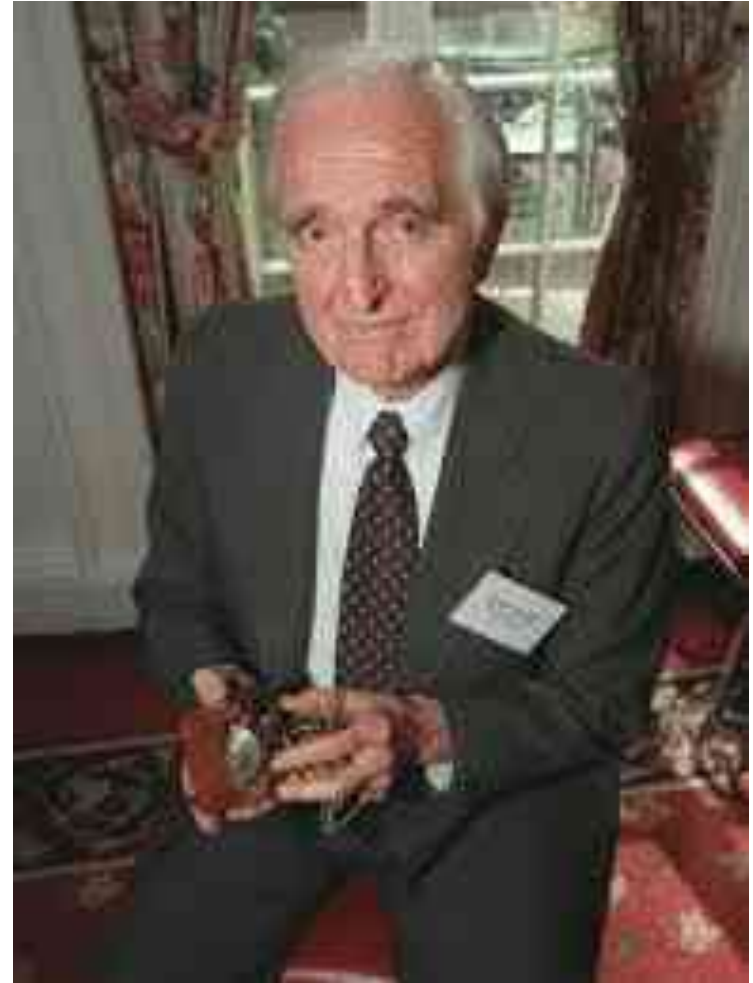
We Interrupt Our HIS-tory…

- This week was to be Part 1 of the story of **Siemens**, the German conglomerate that acquired pioneering shared vendor **SMS**…

- But in the news this morning (July 3rd, 2013) was the sad obituary of one of the fathers of computing, **Douglas Engelbart**, a little-known early electronics maven who dreamt big and *delivered*:

This early version of the mouse (named for its tail-like cord) was assembled by Douglas Engelbart and his Stanford team in 1963.

- The computer mouse, so ubiquitous today, but a daring input concept back in 1967.

- He also worked on the ARPANET – the telecom "pre-cursor" to today's Internet.

- So let's take a break from today's HIS vendors and pay tribute to this amazing man who literally "had a vision" and then worked his whole life to deliver the goods. To keep things relevant, we'll end with how an input device featured in an early CPOE systems too, since physicians were as keyboard-averse then as they are now!

Birth of the Mouse

- Doug started his e-career drafted as a U.S. Navy electronic radar technician during World War II. It might have been when he was sitting in front of a large radar screen when he got the epiphany that guided his later efforts: a user able to control the text and images that appeared on the "CAT" (early term for a CRT) screen and communicate with others.

- He got his first "real" job working at the Stanford Research Institute (SRI) in the late 1950s, where he worked on some of the first graphic user interface (GUI) software and got the idea for the computer mouse. In 1967 he applied for a patent for the mouse, a thick wooden device with two wheels and three buttons.

- He got the idea in 1964 while attending a computer graphics conference, where he was musing about how to move the cursor on a computer display. His patent was approved in 1970, and the rest, as they say, is HIS-tory…
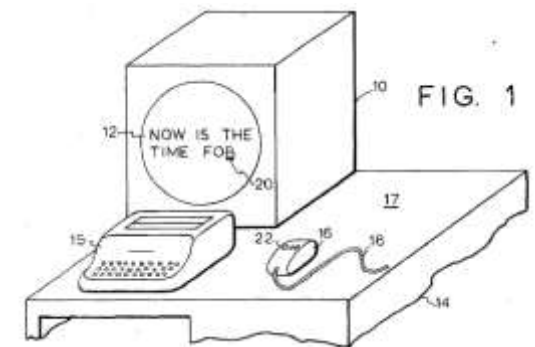
Strange Name/HIS Connection!

- When he returned from the 1964 conference, Doug gave a copy of a sketch to William English, an engineer at SRI, who, with the aid of a draftsman, fashioned a pine case to hold the contents.
- And where did the term "mouse" come from? A hardware designer, Roger Bates, contends that the name came from the term then used for the cursor on a green-screen: CAT. It seemed the cursor was following their tailed device....
- SRI grew eventually to over 50 researchers, but was disbanded when SRI was sold in 1977 to **Tymshare**, yes *that* shared HIS giant led by Bob Pagnotta after they acquired his MDS from NJ!
- Sadly, Engelbart worked in relative obscurity until later being awarded the National Medal of Technology and the Turing Award.
- And the mouse? It too sat in relative obscurity until an early version was spied by Steve Jobs working on Apple's "Lisa" PC...

Tale of Two Steves

[COMPUTER HISTORY]

AN APPLE 1 PROTOTYPE COMPUTER, built in 1976 and accompanied by an operations manual and schematic as well as a photo of its inventors, Steve Wozniak, left, and Steve Jobs, will go on sale next week.

- Jobs & Wozniak had made a splash with their pioneering Apple 1 – ironically, this early model went on sale *last* week for 6-figures! Back then, it retailed for a few hundred bucks, little more than the illegal "blue boxes" the Steves sold…

- The Apple II *rocked* back in the late 70s when the micro revolution blossomed, and they Next (pun intended) started on a business computer to make some big bucks: *thousands* each, versus the few *hundred* $s people spent on personal computers.

- This was the machine Jobs was working on when he spied Englebart's mouse prototype at Xerox' "PARC" (Palo Alto Research Center), and he immediately realized its potential to make this "Lisa" business PC an overnight hit!

Not Quite…

- Apple paid Xerox ≈$40K for the rights to the mouse, about the price for *four* Lisa PCs! Why Xerox let it go for such a paltry sum is unknown, but if you figure how much of a disaster the Lisa was, maybe they were smart! At ≈$10K each, the Lisa was a dismal flop despite its stunning GUI interface and mind-blowing mouse…

- Sales were so dismal Apple took them off the market and rumor has it buried them in a pit somewhere in CA… I actually owned a used Lisa for a few years in the 80s, but I only paid a few hundred bucks for it. Sorry, no pictures – I never realized how rare it was!

- It was Apple's next PC, the Macintosh, that featured the mouse that roared! Between the GUI OS and the point-and-click mouse, Mac sales took off, in part due to its more affordable able price tag of about $1-2K each, depending on options, drives, etc.

Of Mice and Men…

- The mouse put Apple's OS on the proverbial map, and the <u>Mac</u> was followed by the <u>Mac Plus</u>, then the <u>Mac SE</u> (System Expanded), which was my first PC in 1987.

- We started HIS Pros that year, and I used my Mac SE extensively for consulting reports and even brought it to a hospital client in Long Island: <u>St. Francis Hospital</u>, a major heart center. I wanted to show it off to their super-sharp MIS Director (no CIOs back then), Dave D'Auria, who was using one of the early IBM AS/400s to install IBAX (née Dynamic Control) HIS. So I schlepped the Mac there, set it up on Dave's desk and invited him to try out the mouse, a far cry from the green-screen RPG he was used to…

- Dave just could not get the hang of it! Like most DP professionals back then, the world was all Microsoft DOS, character-based, driven by the keyboard, and Macs sold only to US households.

An Even Better HIS "Mouse!"

- Not sure what hospital poor Doug spent his last days in, but if it happened to be <u>El Camino Hospital</u>, up near the Silicon Valley in CA, even back in the 1970s Dr. Engelbart would have seen an amazing sight that equaled or maybe surpassed his mouse.

- If you remember the previous episodes on Allscripts that traced the roots of Eclipsys back to Lockheed's MIS, this picture should look familiar: the "light pen" that provided the ultimate point & click interface. Hundreds of MIS Directors who tried touching it got the message immediately, as did their thousands of physicians who used MIS' CPOE for decades.

Neilson Buchanan watches as George Ting, M.D., enters orders directly into MIS for an ICU patient.

Modern Mice

- I'm sure Doug was thrilled to see how Microsoft's Windows in the 90s finally converted to rodent-hood, as every IBM and clone PC came with a mouse & GUI.

- And he must have loved how Apple's Steve Jobs took the point & click device to a whole new level in the 2000s with their "touch screen" devices starting with the iPod, expanded further with the iPhone, and then causing another revolution with the iPad tablet.

- Ironically, page 18 of this month's Consumer Report magazine claims that according to the Consumer Electronics Association in this year alone, the US is expected to purchase over **240 million** smart phones and tablets: that's one touchy-feely e-gadget for every man, woman and child over the age of 12! And every one will feature the same intuitive point & click that Doug Engelbart saw in his amazing vision back in 1964 – thanks Doug. And may you R.I.P.
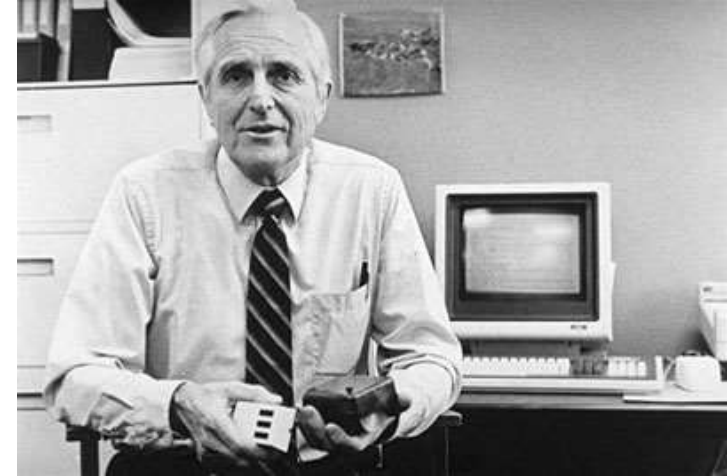
H.I.S.-tory

by Vince Ciotti

Episode #100:

Siemens, Part 1

3rd of *Today's* Leading HIS Vendors

- We continue the HIS-tory of ***today's*** vendors with ***Siemens***, whose est. 2012 HIT annual revenue of $1.8B puts them in 3rd place among HIS vendors:

    1. $3.2B = <u>McKesson</u>, née HBOC = Walt Huff, Bruce Barrington, & David Owens
    2. $2.6B = <u>Cerner</u>, *still* run by Neal Patterson, co-founded with Cliff Illig
    3. $1.8B (est) = <u>Siemens</u>, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde
    4. $1.5B = <u>Epic</u>. Gee, I have to wonder, just ***who*** was it who founded them?
    5. $1.4B = <u>Allscripts</u>, née Eclipsys, also founded by Harvey Wilson of SMS.
    6. $850M (est) - <u>GE Healthcare</u>, née IDX/PHAMIS: created by Malcolm Gleser
    7. $597M = <u>Meditech</u>, *still* run after all these years by Antonino Papallardo
    8. $375M = <u>NextGen</u>: née Quality Systems Inc. founded by Sheldon Razin
    9. $183M = <u>CPSI</u>, founded by M. Kenny Muscat & Denny P. Wilkins ***(who??)***
    10. $156M = <u>**HMS**</u> (Healthcare Management Systems), Tom Givens & John Doss
    11. $150M = <u>Keane</u>, parent giant by John Keane, but HIS div. built by Ray Paris
    12. $106M = <u>QuadraMed</u>, née Compucare, founded by Sheldon Dorenfest
    13. $75M (est) = Healthland, formerly Dairyland, founded by Steve Klick

Siemens' 4-Part Saga

- There are actually *four* stories behind today's Siemens and where its 3 key products (Invision, Medseries and Soarian) came from:

  - The 1960's roots in **IBM's** SHAS, which gave birth to **SMS** and dozens of other shared systems during the post-mainframe 1970s.

- Shared Medical Systems (**SMS**), whose PA headquarters locations gave it 3 mini-epochs: Bridgeport, King of Prussia and now Malvern.

  - MedSeries 4 – as pioneering a *mini* system as SHAS was a shared system, with roots at IHC, then GTE, and eventually sold to **SMS**.

- **Siemens**, whose history goes back over 165 year ago, and whose healthcare division sells many products to almost *every* hospital department.

The Roots of IBM's SHAS ?

- Many thanks to a number of HIS-talk readers and old **SMS** friends of mine who answered my inquiries about the origins of SHAS. My sick brain still remembers so much trivia about it that I am embarrassed to confess how much grey matter I am wasting:
  - For kicks, let's have some fun and see who remember these card codes – the first 2 digits on the 5081 cards we punched:
    - Admissions = 11, 12 (credit info) and 13 (guarantor) cards
    - Discharge & Transfer = 16 and 17 cards, respectfully
    - CDM = 30-card series (I think!?), some used later in AP…
    - Charge cards = 40-series for 1, 2 or 4 per (43 was a credit)
    - Payments: 81 = patient, 82 = insurance
    - Adjustments: 80-series; 87 = patient to ins, 88 = ins to pat

- *This is sick!! Why do we waste our precious grey matter on such total trivia that will never be used (except for writing this…)?*

So What Was "SHAS?"

- For you (very lucky) young CIOs, here's a quick HIS-tory of **SHAS**:
  - Mainframes dominated hospital "data processing" rooms in the 60s, like server racks do in today's modern data centers.
  - And **IBM** dominated mainframe sales in the 1960s just like **Microsoft** owns today's business market for Office & OS, and **Apple** owns the home PC, iPhone, iPod and iPad markets.
  - By the late sixties, **IBM** & its "7 Dwarf" (aka BUNCH Group) competitors had sold almost every *large* hospital in the US a mainframe, and all that were left were small to mid-size that couldn't afford the million dollar price tag and large dp staff.
  - So Armonk started a project to write software that enabled a group of small or mid-sized hospitals to *share* a mainframe, opening up thousands more prospects for their machines. They called it the "Shared Hospital Accounting System" or **SHAS** in geek-speak, and the question is, *where* did they do it?

Some Answers

- Here are some of the many answers I've received over the past week – the first from <u>Ken Shumaker</u>, easily one of the best & brightest at SMS, later famous for being the father of "Unifile"

"My recollection of SHAS goes back to my time in IBM from 1965 to 1970. A guy named Dr John(?) Duffy was IBM's medical director of the Advanced Systems Development Division with 3 geographic centers:

1. **San Francisco Presbyterian** and Doctor Jim Beaumont were focused on intensive care monitoring.

2. **Rochester Minnesota** had a 14 person group headed by Gerry Shultz working with the Mayo Clinic. That is where Jerry Vogt, Alan Sprau, Jim Vaughan, Clyde Hyde, and I worked *(VC: other hard-working, brilliant guys from early SMS days)*. The projects were all clinical. A guy on the Mayo Clinic Board of Governors, G Slade Shuster had flown bombers in WWII with Thomas J Watson Jr. Their friendship eventually led to **IBM** establishing a manufacturing plant in Rochester MN. Clyde Hyde *(VC: co-founder of SMS)* worked with Doctor Ralph Smith on a computerized EKG analysis program using the Frank 3-lead system."

Ken's Story, continued

- – "Alan Sprau worked with Dr Welby Newlon Tauxe on nuclear medicine scans, a precursor to CAT scanners." *(VC: Alan was Tech VP for SMS, and later formed his own company in Minnesota to sell "Metafile," his version of the pioneering Unifile data base system, which Frank Poggio used at HMDS)*

- – "I worked on a multi-phasic testing program with Dr Duffy in Armonk New York and then on a <u>Mayo Clinic </u>registration and appointment scheduling system. There were other projects - brain probes, radiation therapy, etc.

3. The third group was in **Armonk NY** and did clinical work at <u>Columbia Presbyterian Hospital </u>with a Clinical Decision Support System. Leon Pordy, a cardiologist developed an EKG analysis program based on the classic 12-lead system that competed with Clyde Hyde's EKG program at the <u>Mayo Clinic.</u>

- • Dave Hartinger is the name I associate with SHAS. Whereas all the clinical systems were oriented to the IBM 1800, SHAS was directed at the accounting needs of the new Medicare system and written for the 360 mainframe.

That's about all I know – and not much about SHAS"

- Ken Shumaker

Another Contribution

- This from <u>Doug Beaupit</u>, one of the nicest IDs in King of Prussia:

  - "I worked as a programmer at Atlantic City Hospital (ACH) and converted the hospitals payroll from unit record to a 1440 computer. I also brought up IBM's stand alone on-line hospital package for Census and Patient Billing, AR and GL on the 1440. The 1440 was an all disk system that had up to 4 drives to store files. Each drive had the capacity of 2 million bytes. It wasn't long before you exceeded the capacity. I did a lot of manual manipulations to keep the files open until IBM came out with their 360 system.

  - IBM realized that all hospitals were not going to buy a stand alone computer, hence, the invention of SHAS with the advent of a new series of computers called the 360. IBM spent 56,000 man hours on the initial version of SHAS development. <u>Harvey Wilson</u> was the salesman at Atlantic City when ACH bought the 360. The 1440 was a one shift on line operation that went to a 24/7 operation on the 360. With the 360, the Patient Accounting files were on disk and the A/R , GL and Bad Debt files were on magnetic tape. At that time SHAS software was free with the purchase of the hardware."

Doug's Story, cont'd

- "I attended IBM's kickoff of SHAS along with Earl Messick - I think he came from HUP - we all had the jobs of implementing SHAS in our respective hospitals. I believe Jim Macaleer sold many of the Philly hospitals along with Harvey.

- I implemented SHAS (Census, IP / OP Billing, A/R, B/D and GL) in a stand alone environment at ACH. My IBM System Engineers were Bill Wagner and Elise Rimelli. Nancy Ames was the programmer in the Philly Office who maintained SHAS for IBM and when SMS was formed she was hired to maintain and expand SHAS for SMS. When SMS was formed, Harvey immediately sold West Jersey Hospital, which became SMS' first client. The SHAS software was designed to live until the mid seventies and the next generation of computers. Earl and Nancy worked on training SMS staff on SHAS and designed the expansion of SHAS for SMS. Earl and Nancy may wish to expand on my comments. Hope everyone is doing well and is going to have a great summer,"

- Doug Beaupit

More Early SHAS Tales

- From <u>Phil Jackson</u>, one of the great ones at SMS who led the Terminal Development team that built ACTIon on 4 Phase minis:

  – "In early 1969 worked for 6-8 weeks with the IBM development group, located in White Plains, before I came to SMS. They were part of an of the development organization which carried the internal name of "Shared Medical Systems." When RJM, CH and HJW did their thing -- they must have quit using that name. The charge of the group was to develop SHAS. The manager was Steve ???. This is the group which developed the background job scheduler for DOS. A woman named Martha developed the insurance proration portion of PB. Later in conversation with Jean Irwin – who knew Martha pretty well and used her as a resource when modifying the 'CYCA' insurance proration for coordination of benefits."

  - Phillip D Jackson

And From the West Coast…

- Another great guy and superb salesman, <u>Ron Dixon</u> who opened SMS' LA office and sold *hundreds* of hospitals over his career:

"I was with IBM in Los Angeles as a medical salesman (GEM Region) in 1968 when IBM put together a SHAS sales training school in Washington D.C. for all of the national medical reps. They primarily were looking to sell System 360's to all of those old 1440 hospital customers who used the old PAL patient accounting system. There were quite a few of those around the country. I was able to sell 360 Model 30's to <u>Cedars Sinai</u> and <u>Children's Hospital of Los Angeles</u> running PAL in compatibility on the 360, then planning to convert to SHAS when operational. IBM had signed a consent decree with the Justice Department agreeing not to sell timeshare services at that time, so IBM couldn't offer a shared service to hospital - they put SMS in business with that consent decree."

- Ron Dixon

And From the East Coast

- From Ken Clarke, a veteran CIO and now consultant in WV:
    - "Sorry I don't know the origins of SHAS. We uses it in mid-1970's at Long Island College Hospital and St. John's Episcopal Hospital in NY. It was one of the first software apps that gave you the source code and came with a hospital profile that supported multiple hospitals. You needed punch cards to update a field in the profile. It was written in COBOL and also had multiple subroutines written in IBM Assembler language.
    - **It stored "scalar" dates in a two character hex format that used Jan 1, 1900 as the base, which meant a Y2K-like death in 1989...**
    - SHAS used an ISAM (indexed sequential access method) hierarchical database which allowed for fast retrieval and reasonably fast adds. We used SHAS as the starting point for our system at St. John's where I started WECAL (West End Computer Associates Limited). We expanded the date to 3 hex characters to eliminate the 1989 expiration problem. We also eliminated the card updates to the profile – we used CICS – remember that ancient beast? I sold the software to Bob Pagnotta at Jones/Hosplex and worked there for about a year."
    - Ken Clarke, FHIMSS

So Who Cares?

- Two answers to that question:

  1. Look what happened to over a hundred hospitals in 1989:

Malvern company's software throws 100 hospitals for a loop

By John Burgess
Washington Post

WASHINGTON — About 100 hospitals around the country were forced yesterday to switch from computers to pen and paper for major bookkeeping functions because a software program from a Pennsylvania company could not figure out what day it was.

The incident affected hospitals that use software and services provided by Shared Medical Systems Corp. of Malvern, Pa. The company stores and processes information for hospitals on its own mainframe computers and provides software that can be used on IBM equipment.

Officials said data were not permanently lost and that patient treatment was not threatened. But the incident, apparently caused by a mistake in programming, demonstrates how institutions are accepting the risk that major disruptions might occur in the workplace as more and more functions are handed to computers.

Problems began to appear at numerous hospitals early yesterday morning. As call after call for help began arriving at Shared Medical headquarters, technicians there realized that a pattern was emerging and advised clients to shut down parts of their computer systems as the technicians searched for the cause.

The problem was traced hours later to a program that allows hospitals to automate the ordering and reporting of laboratory tests. Because of a fault in the aging software, the machines were unable to accept as valid the date Sept. 19, 1989, and went "into a loop," refusing to work, Shared Medical spokesman A. Scott Holmes said.

By day's end, computer services had been disrupted at about 100 of Shared Medical's 600 to 700 client hospitals.

One computer specialist described the problem as a "birth defect," an accidental fault put in a program in its early days that later threatened the system's health — in contrast to a "virus," a program that is written with the deliberate purpose of replicating itself and causing disruption.

So Who Cares, cont'd…

2. About 500 CIOs and their C-Suites should care, as that's about how many hospitals are running **Invision**, whose "FMS" or Financial Management System for patient accounting *still* includes major portions of SHAS, including such jewels as:

- <u>TCEs</u> – Transmission Control & Error Reports and "Recirculating Error Files" that go back to 5081 keypunch cards…

- <u>CDM</u> - Charge Description Master, a relic of SHAS' ISAM files

- Granted, SMS made major revisions and improvements during its 30 year run with SHAS, and Siemens' "Soarian" is finally delivering a modern Revenue Cycle replacement product 15 years later, but most CIOs I know who are running Invision are extremely pleased with the performance of this 45-year-old machine

  and are reluctant to ever consider a replacement…

- Just like me with my 1965 Austin Healey 3000 from the same era, that I ride into town daily!

Last SHAS Story

- The most interesting story of SHAS' origin comes from another SMS vet: Bob Haist, who joined us in 1976 when we merged with American Hospital Supply's ISD (Information Services Division):

  "Vince, Thanks for another trip down the "M"-lane! One thought to share: Was it Michigan BC/BS hospitals with IBM and SHAS, or Minnesota? *(VC: this after I reported a story that Michigan BC/BS might have started SHAS)* It was my recollection that it was Minnesota (in fact one of those BC/BS execs was head of SMS' (Lab, I think) division for a while... What fun it was, eh? Thanks again for all your work with this HIS-tory. I will look forward to seeing you again at a reunion or just on the street one day! Best regards,

  - Bob Haist"

- So the riddle is still unsolved – just who, when and where designed and wrote SHAS, a system that automated *several thousand* hospitals over its 50+ year HIS-tory? Any readers with more SHAS stories, please send them along, or next week we'll jump to the story of how SMS grew from Ross & Royal Roads, to 650 Park Avenue in King of Prussia, to its current Malvern HQ.

1969 = Ross & Royal Roads, Bridgeport

1971 = 650 Park Avenue, King of Prussia

1981 = 51 Valley Stream Parkway, Malvern

H.I.S.-tory

by Vince Ciotti, Episode #101:

Siemens, Part 2

It Was A *Very* Good Year!

- This week continues the HIS-tory of **Siemens Healthcare**, today's #3 vendor in annual revenue, whose HIS roots go back to the mid-1960s when **IBM first** developed SHAS, featured last week.

- Thanks to the many HIS veterans who contributed to the origins of SHAS, which automated patient accounting in *thousands* of US hospitals who used it through local Blue Cross, state hospital associations, and many proprietary firms like Gamut & **SMS**.

- This week, we cover the early days of **Shared Medical Systems** for CIOs who may not have been *born* when it was founded in 1969.

  I was fortunate to be one of **SMS**' early employees (#24, hired in October of 1969), so I'm going to relay the inside and human story of **SMS**' amazing growth to eventually being the #1 HIS vendor.
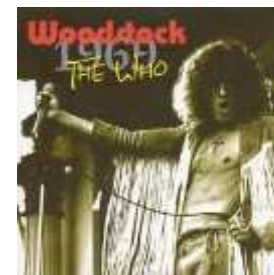
SHAS Was *Not* Perfect!

- **SMS** started running **IBM's** SHAS soon after its release, and like *all* new HIS products (Millennium, Paragon, Soarian, etc.) it had its share of bugs, design flaws, missing features, etc., all to be corrected in the 4th quarter per the vendor (but in what *year*?).

- We touched on one last week which was the Scalar Date routine IBM came up with to minimize storage requirements back in the days of their 360 mainframe, whose disk drive had *one (1)* meg!

- An early SMS programming maven, Glen Marshall, tells the tale (he's pictured on the right at our 2007 reunion in FL):

"In the mid-1980s I rewrote the old SHAS scalar date routine, changing the base-date from 1/1/1900 to 1/1/1960. This extended the range of dates until September 2049, well past my 100th birthday. For the geeks among us: The original scalar date calculation was done in packed decimal arithmetic: year x 36525 / 100 (by lopping-off 2decimal places) then calculations for month, day, and leap-year adjustments."

 (VC: pretty simple, huh?)

Y2K Pre-Cursor (*still love* that pun!)

"My rewrite was based on the date calculation formula used in satellites, and that formula dealt with the Y2K problem as well. (I saw it coming early...) In addition, the calculation was done in binary register arithmetic, which cut the CPU time for date calculation by 90%. This time-savings was significant.

The billing records were chock-full of dates that entered into the insurance proration calculations. As I recall, the savings was nearly a net 10% savings for the overnight billing program runs. That is a major savings for a mainframe.

All the scalar-date using programs needed to be re-linked to pick-up the new date calculation subroutine. A one-time conversion program was run to change the date-base to 1960. Everything works like a charm. Only one program was not re-linked, though, due to an oversight. And that was the one that caused the headache and headline in 1989." – Glen Marshall

Start-Up Ups & Downs

- There was an amazing esprit de corps at **SMS** in those early days – as I'm sure there was at HIS new start-up: McAuto, HBO, SAI, etc. Everyone knew we had to work hard just to *survive*, let alone ever make the big times. The hours were long and hard too: I got up one winter morning to a freezing rain at my home and couldn't get the door to my 'vette to open – the lock was frozen solid! I tried heating the key with matches, to no avail. Waiting an hour for the sun to do its job, the phone rang around 9AM – it was President Jim Macaleer wondering why I wasn't there yet:
  - we were supposed to start at 8:30!

- And I'll never forget the "Saturday Club" – a small group of fools like me who got their dull admin stuff done on Saturday mornings: "Big Jim," Harvey Wilson (Sr. VP Sales & Marketing), Mike Mulhall (VP of Installations), Phil Jackson (Terminals), Tony Sam (CSC)… you could tell who was in by the cars parked in the near-empty parking lot at 650 Park Avenue…

Inside Humor

- It wasn't all just work during those early 10-12 hour days either – we goofed off a lot to keep each other half sane...

- We IDs (Installation Directors) received a stream of "ID Memos" from K of P telling us of bugs that were fixed and new features or modules.

- I was an ID at **SMS**' NJ office, and wrote this mock memo to a hot chick in King of Prussia HQ trying to impress her with my puny humor (she was an English Major too).

- She laughed, but didn't buy...

MEMO TO: Alix Kaufman   FROM: V. Ciotti

SUBJECT: Waterbed System   DATE: 5/17/71

The Woodbridge Office is pleased to announce the latest enhancement to Shared Medical Systems' complete "Hospital Management System": The Waterbed System.

The comprehensive design of the Waterbed System allows for complete versatility in adopting to any profile. Input and output are automatically controlled and balanced, thanks to our chief systems analyst: Archimedes. All processing is done on-line, and file security is guaranteed by a sturdy redwood frame. Any leaks in the data banks are as easily detected as Old Faithful, and bugs are patched by our erstwhile support group - Customer Service Center, who have traditionally been all wet anyway. The core storage capacity of the CPU (Central Pumping Unit) is estimated at 10,000 buckets; this figure has not yet been substantiated by a core dump.

The Waterbed System is currently operational at a test site near the Woodbridge Office - The Vince Ciotti Home for Future Unwed Mothers. This young institution has completely replaced its old bed complement with the SMS Waterbed System counterpart, and, if operations continue to flow as smoothly as the initial test runs, a second bed is contemplated.

Demos can be arranged between the hours of midnight and four A.M.; contact your local SMS Sales Representative for appointments and advice as to suitable perma-press apparel. Prospective customers are discouraged from bringing any pens or pencils to take notes, or any other sharp objects, as the Waterbed System has not been in operation long enough to determine whether or not such a radical idea in shared services can indeed hold water. This last qualification is not intended to dampen any enthusiasm for this new system, but rather to sprinkle a few drops of pessimism amidst the undoubted pools of optimism you may have.

SMS IDs are expected to come up with a veritable floodtide of suggestions for enhancements and improvements to the Waterbed System. Mrs. Martin will include a patch kit in the Workbook Section on the Waterbed System, which will be published in clear vinyl, enabling the appropriate pages to be applied where needed.

Outside Humor

Shared Medical Systems

July 27, 1977

MEMORANDUM TO SMS CUSTOMERS

MANUAL: Inventory

SUBJECT: Revision to Customer Memorandum #P-0531

DISTRIBUTION: Administrator
Controller
Purchasing Manager
Data Processing Coordinator

We've all had days when nothing seems to go right. We had one recently. At least that's the only possibility that we can come up with to explain our inventory memo P-0531 dated July 11, 1977.

Aside from being illogical and not very clear, it wasn't a bad memo. Certainly our intent was good, but our execution missed its mark.

Attached is a revision of this memo. We hope that it clarifies the situation. We apologize for any inconvenience that the original memo may have caused.

Attachments

650 Park Avenue, King of Prussia, Pa. 19406 * 215 * 265-7600

- ID memos were pretty technical, so they were re-written in English (sort of…) for *clients* to learn of new enhancements by our Customer Service Center.
- They were called CSC Memos and #531 went out in 1977 that really didn't do a good job of explaining some changes to our new Inventory system…
- The next day, Big Jim wrote this cover memo to a re-written version of the memo apologizing to our 100-odd (sic) clients!

New Product *Break*-throughs

- **SMS** had an amazingly talented team of programmers, and one of their technological breakthroughs was called **UNIFILE** – <u>Ken Shumaker</u> led the development of this powerful & precocious 1970's data base system, based on MRI's "System 2000.".

- Unlike SHAS' batch processing, it processed transactions in *real time* as soon as they were entered (like rival McAuto's HFC did), and then passed them on to an on-line data base for inquiries.

- Needless to say, it sold well, but as more and more clients jumped on board, things started to slow down as the water-cooled **IBM** 370s of that era had trouble handling the many census transactions, report writer requests, and db inquiries…

- It was later toned down to less-powerful but more reliable versions called Focus & Command, but at one of **SMS**' infamous Xmas parties, I had a blast giving Big Jim, Harvey Wilson and Ken Shumaker three T-shirts labeled respectively **Uni**, **Fi** and **Al**!

Near Misses

- The earlier HIS-tory episode on SMS (#11 –see them all at *hispros.com*) as a shared system pioneer covered two near misses that might have put SMS out of business early in the 1970s:

  - Regionalization – expanding from 1-digit to 3-charcater hospital codes that brought SHAS down for days on June 30

  - Cash Flow – turning the corner from red to black circa 1971

- Another close call was when **SMS** moved from its original rented space at Ross & Royal Roads in Bridgeport to a former bank building we *owned* at 650 Park Avenue in King of Prussia. Phil Jackson, who was assigned a number of challenging tasks (like ACTIon and the NYCHHC install) headed up moving the data center, and he asked we IDs to go to client hospitals on three Saturdays, the first 2 to test the move, the 3rd for the real thing.

- We all went to clients and dumped in batches of cards for the two tests, with only a few problems switching the hundreds of phone lines, etc. When it came time for the 3rd test we got the word: the 2nd one *was* the real thing – no need for #3! Few complaints…

Green IDs

- Another down side to start-up firms is the lack of experience with the system by their "green" staff. Not just green in terms of age, but *practical* experience.

- Most of we IDs at SMS in the early 70s were totally new to computers, hospitals and accounting basics:
  - I was an English major at my first "real" job
  - Al College (eventual VP) was a former school teacher & coach
  - Takis Petrakis (sadly deceased) set the record for ID novitiates: he was the former captain of a submarine in the Greek navy!

- So what, you ask, doesn't every vendor hire rookies and train them? We had a 3-week class that tried to teach us every aspect of SHAS (several *million* lines of code!), accounting (debits vs credits) and hospitals (what's the difference between an RN, LPN and Aide?) – lots of luck! We learned as as much as we could during those 3 weeks, then were sent out to the *real* world to learn in the school of hard knocks, at our client hospitals' time & expense.

- Aren't we so much smarter today? Every CIO insists on meeting the ICs (Implementation Consultants) before they ever sign, right?

Card Column 11 of the Header Card

- Al College & I were assigned to convert St. Vincent's Hospital in Staten Island, which had been totally manual on NCR posting cards. We started with AR, showing them how to fill out coding sheets for their thousands of ledger cards for keypunching:

- The cards were then sorted into batches of ≈50 each for ease of handling, and SHAS required each one to have a header & footer card. On the header card went the hospital's code (St. V = "O"), the batch type (new AR = 05), a batch number (001 to 999), etc.

- According to the SHAS OPS manual (our bible!), card column 11 indicated outpatients with a "6." So Al & I dutifully sorted all the hundreds of batches by IP & OP, entering a 6 in cc 11 for OP ones. Wouldn't you do the same – it's what the book said!?

Catastrophe!

- I squeezed all the boxes of 5081 cards into my car on Friday night, drove them down to K of P to load onto our mainframe over the weekend. On Monday I went back to get the TCEs (Transmission Control & Error report), and was dismayed to have as many boxes of paper error printouts as we had submitted keypunch cards! It seems what the SHAS OPS Manual meant to say was that cc 11 separates OP vs IP *charges* (batch type 03): new AR from cards was batch type 05. Oy Ve!!!!!!!!

- So I drove the boxes of error reports back to the poor folks at the hospital, who started trying to correct the bewildering array of *duplicate* errors that each batch had generated: some from the AR program, some from the OP billing program. A nightmare!

- Precious days went flying by as all patient accounting activity halted until we could correct all the errors and balance the AR – we never did, and after a few weeks, the CFO just wrote off the difference (6 figures…) before we proceed on to ADT & Billing…

Near-Death Experience

- We converted Census and Billing at St. V's much better, and the hospital eventually benefitted enormously from automation – it is still an **SMS** (Siemens) client to this day! But I must admit, I still avoid driving over the Goethals bridge thru Staten Island, afraid the CFO might still be gunning for me somewhere out there…

- I probably almost got fired for the screw-up – I remember trying to explain to Steve Macaleer my ID Manager about the error in the SHAS OPS manual, but he told me to not screw-up again…

- The real irony is that I learned from my mistakes, became one of SMS' better IDs (aced my 2nd and 3rd hospitals), and was eventually promoted to be Education Manager, in charge of teaching all new IDs the ropes. I told this story to every trainee!

- So is it better to get a rookie who's very bright and hard-working, or a stogy old veteran who just repeats the same formula over & over? I'd look for *both*: a veteran who is smart & willing to learn!

- And *never* be any IC's **first** implementation! Send them back…

The Takeaway?

- So what can one take away from this story of **SMS**' early days – should a CIO stick with large proven giants like today's leaders:
  - McKesson, Cerner, Siemens, and other "Top 10" HIS vendors,
  - or take a risk with daring new "cloud-based" products from early start-ups like **CSS HealthTech**, or **RazorInisghts**?
- Like so many HIS issues, the answer has both pros & cons. Pros:
  - Giants forget their own past when they too were start-ups themselves, viz: Huff, Barrington & Owen in Walt's kitchen struggling to write an order entry system on a Four Phase…
  - Small start-ups generally give the best service as any of their early clients can get the CEO on the phone & they'll *listen*!
- And on the other side of the coin, there are cons, like:
  - Who can remember hot new start-ups Bulldog IT, IntraNexus and American Health Net, who rocked just a few years ago?
  - An adage from the 60s had it that "No One Ever Got Fired For Buying **IBM**" – dare take an unknown name to *your* Board?

The answer is different for *every* hospital and *every* HIS-tory epoch…

H.I.S.-tory

by Vince Ciotti,

Episode #102:

Siemens,
Part 3

MEMO TO: All Bulletin Boards
            All SMS Employees

FROM: Graham O. King

DATE: September 25, 1989

SUBJECT: **SIGNIFICANT NEW PRODUCT ANNOUNCEMENT**

Today at the Fall meeting of SNUG, our INDEPENDENCE national users group, we are announcing a significant new IBM-based product: INVISION. This introduction precedes the general market announcement and will, along with developments being made in our DEC-based product: EXACT, help position SMS to lead our industry into the next decade.

INVISION has been designed specifically to address the most important needs in the healthcare industry based upon input from our clients, key employees, and industry experts. INVISION's major components include leading edge financial applications, advanced clinical function, and integrated decision support capabilities. These applications are based upon a powerful new IBM standard technology platform which will enable both SMS and our clients to utilize IBM's announced systems architecture direction as well as other industry-standard technologies.

We are also announcing the availability of automated tools to help current INDEPENDENCE clients simply and economically migrate [1989-0925_INVISION_announcement.jpg Click image to close this window] will clearly demonstrate SMS' commitment to protecting our clients investments in their SMS systems and providing them with evolutionary paths to new function and future technologies.

Today's announcement marks both the successful completion of a major milestone and the first in a series of product announcements which will enable us to implement a full range of innovative information solutions for the next decade.

This announcement is a direct result of outstanding teamwork across the Hospital Systems Division over the past few months. My compliments and thanks to every member of this team!

GOK/kkn
(1480)

Product (R)evolution

Product Life Cycle
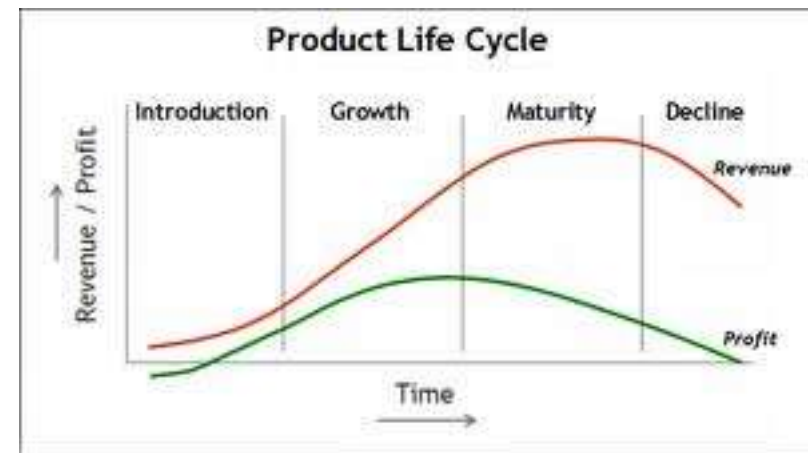
- SMS bought & developed a wide array of products over its 30 year HIS-tory, many of which Siemens sells today.

- If you're one of their ≈1,000 US client hospitals, this episode should help you appreciate how amazingly long-lived a quality HIS can be:

  - E.g: TDS' MIS which started in the late 60s and ran beyond 2010:

    Lockheed -> Technicon -> TDS -> Revlon -> Alltel -> Eclipsys…

- SMS' products have such a long HIS-tory and went through so many name changes in the hands of their talented marketing people, that I have to extend a special thank you to the many veteran King of Prussians who sent lengthy emails that helped me trace the roots:

Glen Marshall   Ron Dixon   Ken Shumaker   Doug Beaupit   Phil Jackson   Mike Cassidy

All Four Platforms

- If you've been following this HIS-tory since it started 18 months ago, you might remember it started by describing the four epochs and hardware platforms that dominated the HIS marketplace over the past four decades:

  - 60s = <u>Mainframes</u>, led by **IBM** and the "Seven Dwarfs," wherein SMS offered several inhouse systems like Independence & ICO.

  - 70's = <u>Shared</u> systems, led by **SMS**, **McAuto**, Tymshare, etc., with SMS taking the lead in the 80s and dominating to today.

  - 80's = <u>Minicomputers</u>, led by HBO, DCC, Meditech, etc., where **SMS** sold it's ACTIon line, & acquired MS4 & Computer Synergy

  - 90's = <u>Micros</u>, led by HMDS, MedTake, CliniCom, Paragon, etc., in which **SMS**' offered it's "Novius" line of ancillary C/S systems.

- **SMS**' products in each of these platforms/decades had a complex evolution, which we'll trace in detail in these next two episodes.

Mainframe/Shared Systems

- We're going to lump these two together since **SMS** started as a shared system with SHAS patient accounting, augmented with a self-developed ERP suite (which so few vendors offer today!) with several inhouse ("ICO" or Inhouse Computing Option) variants.

- As with other vendors, the diagram below illustrates the complex evolution of SMS' products and marketing-driven name changes, with an emphasis on the derivation of the "modern" products Siemens still offers to this day. Some details had to be dropped to keep each episode to "only" a dozen slides for brevity's sake.

SMS/Siemens' Products Time-Line
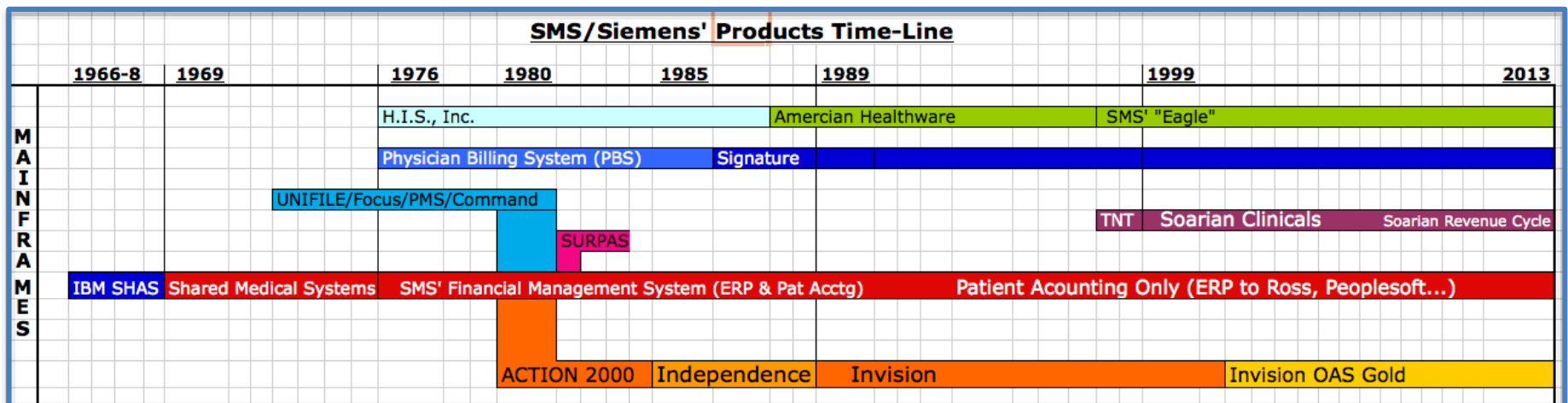
Mainframe Financials

- <u>Patient Accounting</u> – we called it SHAS back in the early '70s, but the name and code changed radically over the next 45 years, first becoming the "Financial Management System" or FMS in the mid-70s by marketing maven <u>John Marshall's</u> product managers. Hard to say how much of SHAS remained in the code over the years to where it still forms the core of Invision & Unity's "RCM."

  - Impossible to count the many bug fixes & enhancements made over the years, but maybe 30% of the core remains today, e.g.: TCEs, profiles, CYCA for insurance proration, etc.

- <u>General Accounting</u> – aka ERP today, was started back in the 70s by Tony Mirigliani's team of financial gurus: Hal Krell & Ron Ferro, later led by John Marshall and his team of product managers, who among them designed **SMS**' own Accounts Payable, Payroll, Personnel, Inventory, Outpatient and Physician Billing systems, none of which came with SHAS. **SMS**' ERP ran into the 90s when they were dropped in favor of **Ross** & **PeopleSoft** partnerships.

Mainframe Financials, cont'd

- Other major products that survived to this day:
  - <u>Physicians Billing System</u>, first developed by Tony Mirigliani & Co. back in the 70s and fine-tuned over many years when SHAS offered nada for MDs' 1454 bills. It was modernized and re-named **Signature** as advertised in this 1987 issue of Computers in Healthcare magazine. A game-changer back in the day when IDX BAR ruled supreme, and building interfaces before IEs was hard! Run only as "shared," not inhouse

  - **<u>Eagle</u>** – I'm often surprised to learn how few people know Siemens still offers this mainframe billing system in the demanding NYC market, where it was designed to handle NY city & state's intricate billing by <u>American Healthware Inc</u>. To get the full story of this amazing Brooklyn-based start-up that began life in the 70s as "<u>H.I.S. Inc</u>," check out episodes 30 thru 32 at *hispros.com*. About two dozen large NYC clients still run it inhouse after all these years later, loathe to ever consider changing systems and jeopardizing their AR…

Mainframe Near-Misses

- **SMS** didn't always hit home runs as these two near-misses show:
  - **UNIFILE** – Covered in last week's episode (remember the Uni-Fi-Le t-shirts?), the first *on-line, real-time, data base* system, just a bit too powerful for the water-cooled **IBM** 370s in KOP. It was gradually de-tuned in a series of replacement products over the late 70s, each with a creative name of their own:
    - **Focus** – what else does a hospital do with its patient data?
    - **PMS** – Patient Management System, no pun intended!!
    - **Command** – Want to take charge of your census data?
  - **SURPAS** – an acronym for "**S**MS' **U**ltimate **R**eplacement **P**atient **A**ccounting **S**ystem," announced (sort of) in the early 80s to join the growing number of SHAS replacements that were entering the market such as Medipac and HIS, Inc. Product Manager Jerry Anderson led the charge in the field, but the programming went too slow to sell many inhouse shops on it.

Mainframe *Clinicals*

- As we'll see in detail in next week's episode on **SMS**' minicomputer systems, the ACTIon product line evolved rapidly form its original Four Phase 4/40 & 4/90 minis, to DEC PDPs and VAXes, and eventually to a mainframe-based alternative called "**ACTION 2000**."

- Mike Cassidy gives the technical details for you geeks below:

   – *"Action 2000 (A2K) was just the real-time (CICS-based) and supporting batch ("day end") programs, but it fed the SHAS and related stuff running in the Malvern datacenter in time for the usual 1pm-8pm-1am updates. Transactions were sent to Malvern throughout the day using various subsystems running in the background (TIF, Batching, Comm)."*

- **ACTION 2000** marked **SMS**' foray into mainframe clinical systems, as this 1992 ad featuring Dr. Lynn Witherspoon from Ochsner Clinic intoned. Lynn actually built his own EMR and evolved it over several decades, using **SMS** primarily for patient accounting, but "A2K" led to **SMS**' next product…

Independence Inhouse

- HIS seer and good friend <u>Frank Poggio</u> told me this fascinating tale of how he goaded **SMS** into first developing inhouse variants of FMS while he was CFO at the U of Wisconsin (<u>Judy Faulkner's</u> home).

- In the mid-70s, Frank signed with **SMS** for its shared system for the usual (high) processing fees, but insisted in a clause in his contract that would give him the option of running the system inhouse within 3 years. At that time, Mediflex's **Medipac** was starting to making a splash as a SHAS replacement run on inhouse **IBM** 4300 mainframes, so Frank wanted to cover his bases.

- It took many flights to KOP and meetings with Big Jim, and Jim Carter (over Ops) before he finally got their OK to provide an inhouse variant of FMS, which was not delivered until the mid-80s. To cover its Philly roots and ability to run inhouse, it was named "**Independence**," and subsumed both A2K and FMS.

Mainframe Breakthrough

YOUR FIRST LOOK AT THE FUTURE

- The biggest development in mainframe systems for SMS was **Invision**, announced in 1989 at the "SNUG" Independence user group. Invision rocked with many significant technical breakthroughs, including the:

  – OAS or "Online Architecture System" for clients to design & build their own screens.

  – Three processing options: remote (RCO), inhouse (ICO) and turnkey (TCO)
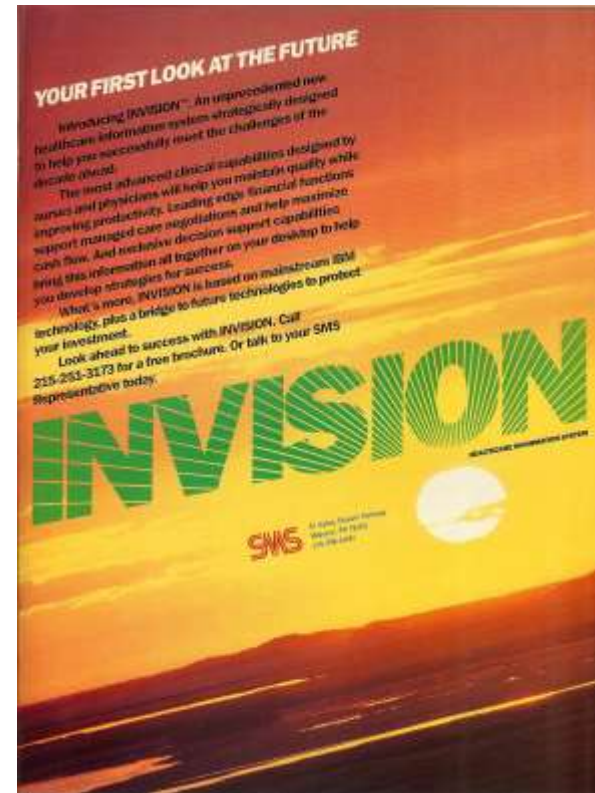
ABOUT THE AUTHORS

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HEALTHCARE FINANCIAL MANAGEMENT

Over the next 20 years, **Invision** became SMS/Siemens mainstay product, selling to over 600 hospitals, including many large AMCs. In later years, it was upgraded to "OAS Gold" and enabled clients such as Meridian Health in NJ (1997 HFMA article on the left) to successfully implement CPOE a *decade* before ARRA MU.

"The New Thing" Soars!

- Circa 1997, word started to slip out about a brand new product **SMS** was developing that was called "**TNT**," acronym for "The New Thing" or "The New Technology."

- With their typical genius at marketing, SMS kept **TNT** details secret, only announcing it to a "select" group of client/prospects (all?) who they were considering to be "partners" in such a daring new system. As is true with every radically new HIS (eg: **Release 6.0**, **Paragon**, etc.), it took *many* more years and releases to deliver the goods.

- It took a heavy investment by **Siemens** who bought **SMS** in 2000 before **Soarian** started to deliver the clinical goods by the mid-2000s. The wait was well worth it for **Soarian** clients however, who love the workflow engine, and are now learning about the revenue cycle applications…

Next Week: Minis & Micros

- The HIS- story of the many products SMS developed and acquired is just too long for one week, so we'll pick it up next week with the details on the many mini base products such as ACTIon, MedSeries4, and Allegra, as well as some precocious PC-based systems that are still being sold today and have helped Siemens clients finally achieve the goal of this 1994 ad about EMRs:

THE SMS-CUSTOMER PARTNERSHIP

"The SMS Electronic Patient Record will help us continue to provide high-quality care. ■ As we shift toward out-patient services, physicians must be able to access patient data anytime and any-where they need it. ■ The Electronic Patient Record will do that for us. And because we've been part of the develop-ment process with SMS from the very beginning, it will do so in a way that's suited to the way we practice medicine. ■ Our partnership with SMS is helping us apply the power of informa-tion technology not only in our business office, lab, and records depart-ment, but across the full continuum of care."

—Rick Abrams, M.D.

Jack Ehrhart, M.D., M.P.H.
Senior Physician Consultant
SMS

SMS
51 Valley Stream Parkway
Malvern, PA 19355
610-219-6300

Rick Abrams, M.D.
Rose Medical Center
Denver, CO

Caring for Healthcare

INFO/CARD 13

H.I.S.-tory

by Vince Ciotti,

Episode #103:

Siemens,

Part 4:
Minis & Micros

ACTION
YOUR KEY TO A TOTAL HOSPITAL INFORMATION SYSTEM
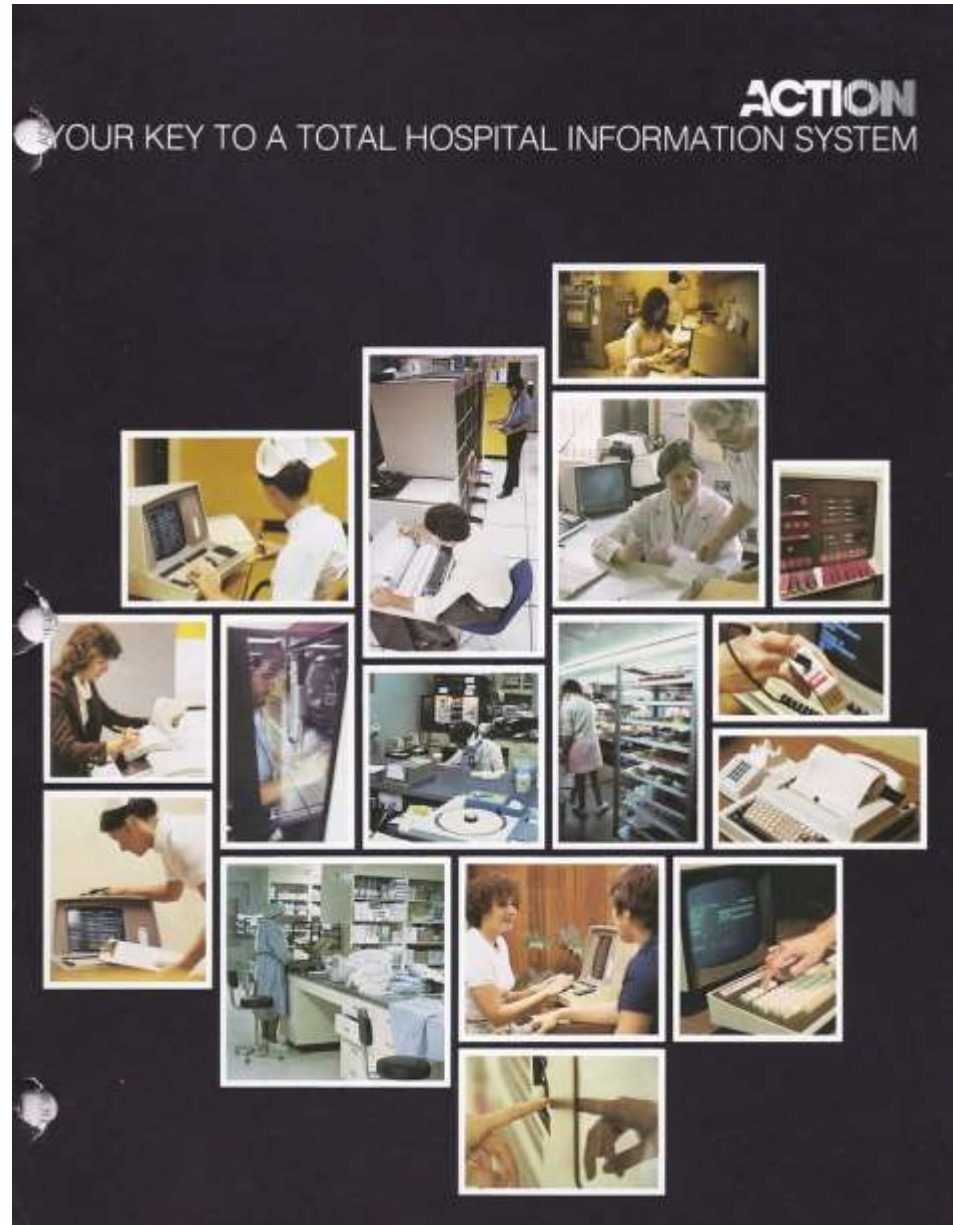
Minicomputer Systems

- This week covers the HIS-tory of **SMS**' many mini & micro-based products, that are amazingly diverse for a *shared* system vendor!

- Indeed, many were sold in conjunction with one of the shared systems, such as "Unity," a typically creative name from their marketing team for a dual system with a mini *and* mainframe!?

- The time line below shows roughly how these many products evolved over the last four decades, changing names over time with new releases and to keep client & prospect interest high, with several still being sold and supported by **Siemens** today.

SMS/Siemens' Products Time-Line

1966-8	1969	1976	1980	1985	1989	1999	2013

MINICOMPUTERS

- Exact | Unity | Unity 22 | Unity 23
- ACTIon 1100, 1500 (DEC PDP & VAX)
- ACTIon Lab, RX & RIS
- ACTIon 200, 400, 600 (Four Phase 4/40, 4/70)
- HBO MedPro
- MedVerse WP
- Intermountain Heathcare Med/38 (IBM Sys38) | GTE MedSeries4 | SMS' MedSeries4 (AS/400)
- Computer Synergy | SMS' Spirit Choice | SMS' Allegra (DEC Vax) | (RIP)
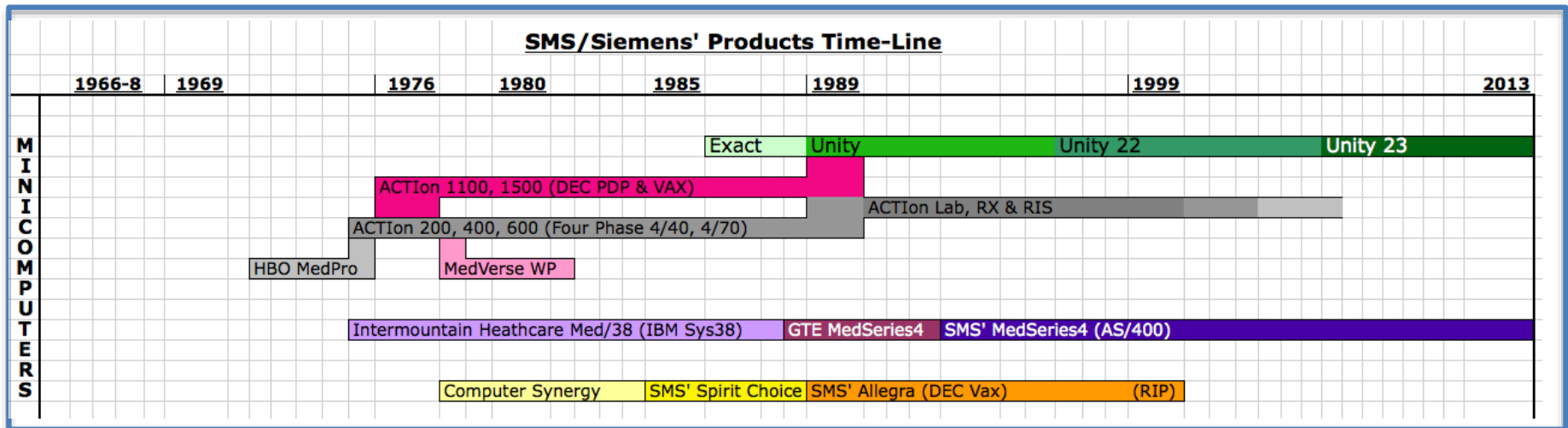
Circuitous Hardware Circle

- Odd how the first mini-based system **SMS** sold came from its major competitor McAuto, circling around *two* minicomputer platforms.

- In the early 70s, **McAuto's** development team was working on HDC (Hospital Data Collection), a dual mini system comprised of a Four Phase mini (with a sweet user interface) front-ending a DEC PDP (more powerful CPU) to handle Census, Order Entry & Results.

- Walt **H**uff from OSF in Peoria (source of their HFC shared system) argued that the system could run on the Four Phase alone, but the programmers disagreed. Walt left in one (sorry…) with his OSF buddies Dave **B**arrington and Bruce **O**wens and started **HBO**.

  - They called their system **MedPro** and it sold so well it caught the attention of **SMS**' Harvey Wilson who secured the rights to market it as a front-end to SHAS too. The question was, what to call it? Strangely, I got involved…

Where the _____ Is

- <u>Betsy Palonis</u> in my Education Department was eager to get into marketing, so Harvey challenged her to come up with a name that could grow as **SMS**' mini product line would eventually grow…

- Betsy came up with "**ACT I**" – very creative name, and we had hundreds of buttons printed up for a sales meeting when our attorneys suddenly found that name was taken – boooo!

- So Betsy got creative again, and came up with a name that saved all the **ACT** I buttons through an 2nd extremely creative acronym:

- "**A**ll **C**ommunication **T**ransmitted **I**mmediately"

- At the sales meeting where **ACTIon** was announced, it didn't take the reps long to come up with the meaning of the last 2 letters" "**O**r **N**ever"!!

Hardware Platform Redux

- **ACTIon** first came out on a Four Phase Data 4/40 mini with an 72K of memory and a 2.5 Megabyte disk platter. It was soon augmented by the Data 4/90 with 96K of memory, and 67.5 MB disks.

- **SMS** called these early versions **ACTIon** 200, 400 and 600, based on the size box and whether software included ADT only or ADT plus Orders & Results (many thanks to super-techie Mike Cassidy – pictured below at our 2009 reunion – for this hardware minutiae).

- However, **SMS**' programmers were as enamored of DEC's far more powerful line of PDP minis as McAuto's programmers were, and soon started developing a whole new line of ACTIon software for it.

- Within a few years, **SMS** offered only **ACTIon 1100** running on a DEC PDP, and **ACTIon 1500** running on a super-powerful DEC VAX. Only **HBO** stayed loyal to Four Phase minis for the long life of MedPro…

Creative Mini Tangent

- **SMS** sold as many over 500 Four Phase minis before Motorola bought them up and sunset the box. Mike Cassidy can remember only a *single* **SMS** customer running Four Phase by 1998...

- Another amazing **SMS** veteran was Bob Fetters, who sadly passed away a few years back. Bob was one of the nicest guys in the HIS industry and one of the most successful salesmen in a company renowned for having only the very best reps. Bob came to **SMS** from some obscure minicomputer company, and he got involved in the Four Phase **ACTIon** project and led the development of an amazingly precocious word processing system called "**MedVerse**." Only **Keane** competed in WP with their Wang line of minis, and **SMS**' evolved into their **ACTIon** RIS.
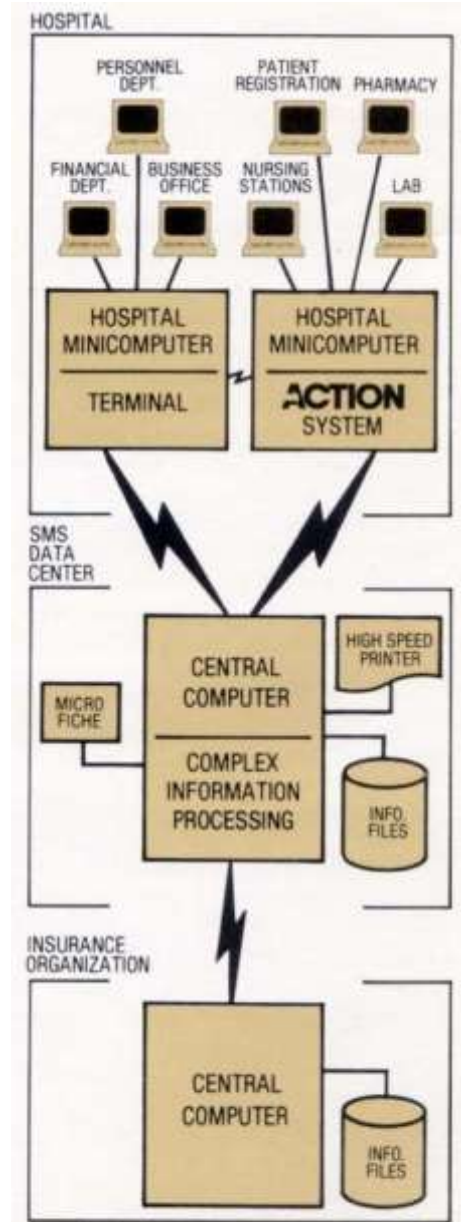
The SMS computer network links small and large computer systems at customer and third party locations with its central Datacenter.

Major Minis

- As well as **ACTIon** sold, it still relied on the SHAS mainframe financials and the HIS market in the 80s was rife with *total* HIS systems on minis, and even **SMS'** super reps felt the heat.

- So in 1985, **SMS** made its first acquisition of a "Total HIS" running on minis: **Computer Synergy** out of Oakland, CA.

- You can get the full story of Tom Culligan's firm in episodes 28 & 29 on our web site (*hispros.com*), and its name changes from **Spirit Choice** to:

Major Minis, cont'd

To paint a good financial picture, you need a variety of soft ware

A good financial picture depends on complete and accurate billing, timely collection procedures and efficient operation in all departments. GTE Health Systems provides a variety of software and networking solutions for the healthcare industry. These include:

MedSeries4, a comprehensive hospital information system, with patient management/accounting, financial, clinical and administrative software packages.

EMC*Express, a clearinghouse for electronic medical claims, used by hospitals, clinics, physicians, dentists and other healthcare facilities.

Collect*Express, an electronic system that provides faster payment to you and a higher percentage of collections at a very low cost.

Q/Care, a managed health software package for HMOs and PPOs with memberships of 25,000 or more.

PDMS (Prescription Drug Management Service), a pharmacy claim administration system which serves the needs of managed care and traditional indemnity insurance claims processors, with links to point-of-sale devices in retail pharmacies.

To brush up on what's available, call us at 1-800-334-7358.

GTE Health Systems

Circle Reader Service No. 2

- **Allegra** sold pretty well, but its DEC platform was just not as hot in sales as **IBM's** SYS 38 and AS/400 minis, so in the 90s, **SMS** bought a leading IBM mini-based HIS turnkey:

- MedSeries4 from GTE, who had bought it from IHC (see episodes 24A & B for details)

- For once, **SMS** did *not* play any "name games" and the system still runs in hundreds of **Siemens**' clients today under the same moniker (sadly for about 175 clients,

Microcomputer Systems

- As hot & creative a company as **SMS** was, when the PC revolution hit the IT industry in the mid 1980s, Malvern (where they moved from K of P circa 1980) was right on top of it. Unfortunately, I can't give credit to the **SMS** tech maven who helped with this part of the story as he's still working there and nervous about attribution so I'll just say a loud *thanks* to Mr. LanMan / 3WIZ.

- This "deep throat" worked in <u>Jerry Vogt's</u> engineering department which came up with some amazing developments over the years, and they jumped on the micro bandwagon early and hard. One of their most creative ideas was called "**Harmony**" which as you can see in the micro time line below evolved into today's **OpenLink** Interface Engine (IE), and marked **SMS**' entry into the PC world.

SMS/Siemens' Products Time-Line

	1966-8	1969	1976	1980	1985	1989	1999	2013
M I C R O							NOVIUS Lab, RX and RIS	
					Harmony (3+)	SMS Lan22 (Novell)	OpenLink (NT)	
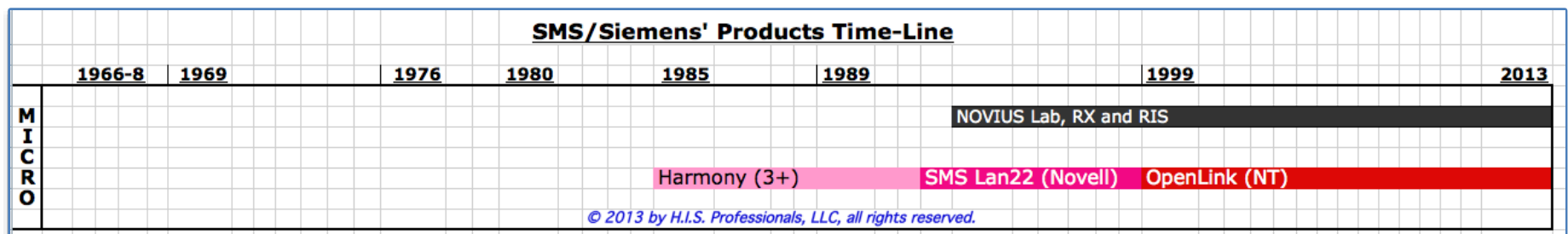
Harmony –> LAN22 -> OpenLink

- Again, thanks to LanMan aka 3WIZ, for this story & pictures:
  - *"At first this "PC network" was based on something called 3Com EtherShare, and ran on an XT PC (hard drive). Then 3Com came up with a dedicated bit of hardware called the 3Server (later 3Server3 and 3S/500) that was basically a headless server, running a special version of MS-DOS that had something called MS-NET as part of it. The command line stuff you can use today in the windows world (NET USE, NET VIEW, NET SHARE) was what we did way back in 1986. The hardware used SCSI drives of 36MB. You could add expansion drives via SCSI. And a tape drive to back it all up."*

Ancillary Department Systems

- We could do a whole year of HIS-tory on ancillary dept. systems:

  – Laboratory: comprised of basic LIS systems, Microbiology, Anatomic Pathology, & Blood Bank

  – Pharmacy: basic RX plus today's eMAR, Bedside, and Med Rec

  – Radiology: starting with early RIS, and the mini-world of PACS

  – ED: that has given rise to an entire world of EDIS vendors

  – Not to mention OR, ICU, HIM, Nursing (staffing, etc.), etc.

- Like many vendors, **SMS** developed a whole series of ancillary systems on minis, starting with the DEC **ACTIon** line. Only problem: even the powerful VAX could run out of gas running *both* **ACTIon** core apps (ADT & O/E) as well as a LIS, RIS, etc, and there was a limit to how many minis could be afforded.

PCs to the Rescue!

- The answer came to **SMS** just as it did to other breakthrough niche vendors like **Citation** in the LIS world: cheap, powerful PCs!

- **SMS** gradually evolved its whole line of ancillaries (Lab, RX & RIS) into a brand new line of micro-based systems. And what would *you* call a brand *new* line of systems? What else but **Novius**, a line of Client/ Server based ancillary department systems that **Siemens** still sells and supports in hundreds of sites.
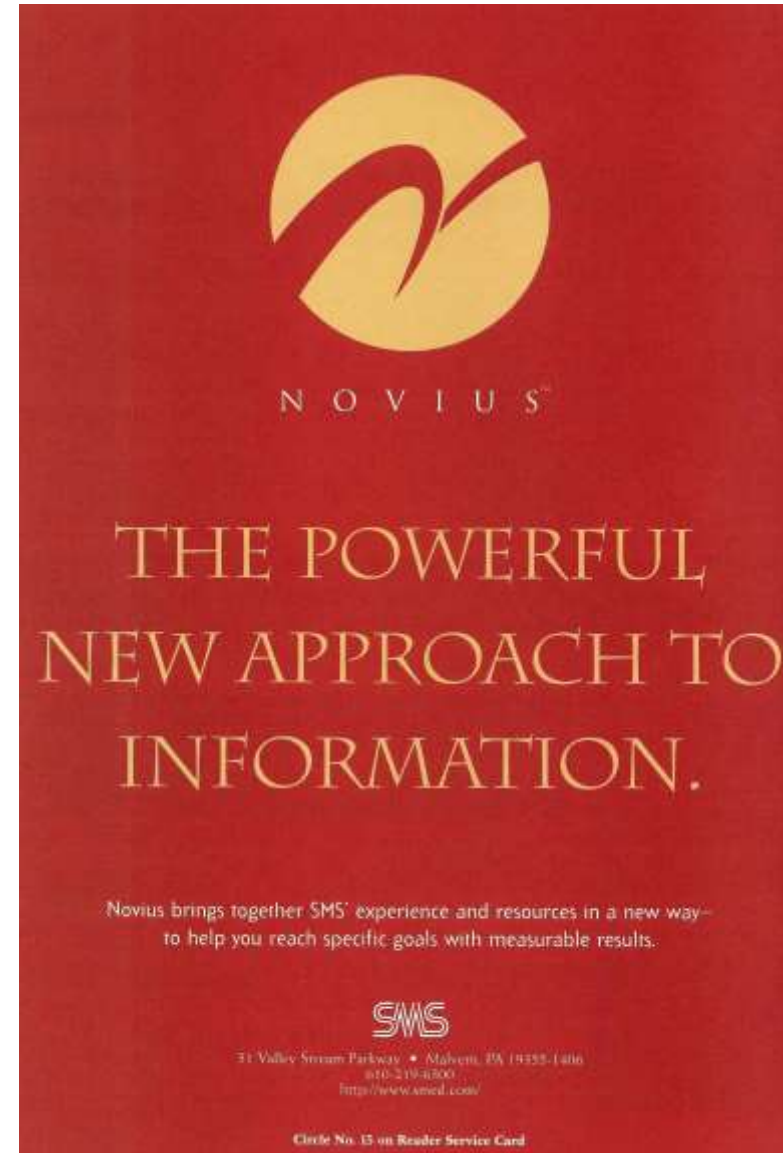
The Big Picture

- So here it is in toto: the complex evolution of **SMS**/**Siemen's** many products, showing the surprising age of systems *still in use*

SMS/Siemens' Products Time-Line

Timeline columns: 1966-8 | 1969 | 1976 | 1980 | 1985 | 1989 | 1999 | 2013

MAINFRAMES
- H.I.S., Inc. → Amercian Healthware → SMS' "Eagle"
- Physician Billing System (PBS) → Signature
- UNIFILE/Focus/PMS/Command
- TNT → Soarian Clinicals → Soarian Revenue Cycle
- SURPAS
- IBM SHAS / Shared Medical Systems / SMS' Financial Management System (ERP & Pat Acctg) / Patient Acounting Only (ERP to Ross, Peoplesoft...)
- ACTION 2000 | Independence | Invision | Invision OAS Gold

MINICOMPUTERS
- Exact | Unity | Unity 22 | Unity 23
- ACTIon 1100, 1500 (DEC PDP & VAX)
- ACTIon Lab, RX & RIS
- ACTIon 200, 400, 600 (Four Phase 4/40, 4/70)
- HBO MedPro
- MedVerse WP
- Intermountain Heathcare Med/38 (IBM Sys38) | GTE MedSeries4 | SMS' MedSeries4 (AS/400)
- Computer Synergy | SMS' Spirit Choice | SMS' Allegra (DEC Vax) | (RIP)

MICRO
- NOVIUS Lab, RX and RIS
- Harmony (3+) | SMS Lan22 (Novell) | OpenLink (NT)

H.I.S.-tory

by Vince Ciotti

Episode #104:

Cerner

Part 1

VOL. 4, NO. 6   JUNE 1987

HEALTHCARE
COMPUTING & COMMUNICATIONS

CERNER
CORPORATION

Cover Story
Cerner is Ready For Tomorrow   page 20

Voice Mail at UMAB   page 36

Financial Information Systems:
In-House Vs. Shared   page 43

Fax: A 'Middle Tech' Approach
To Communications   page 58
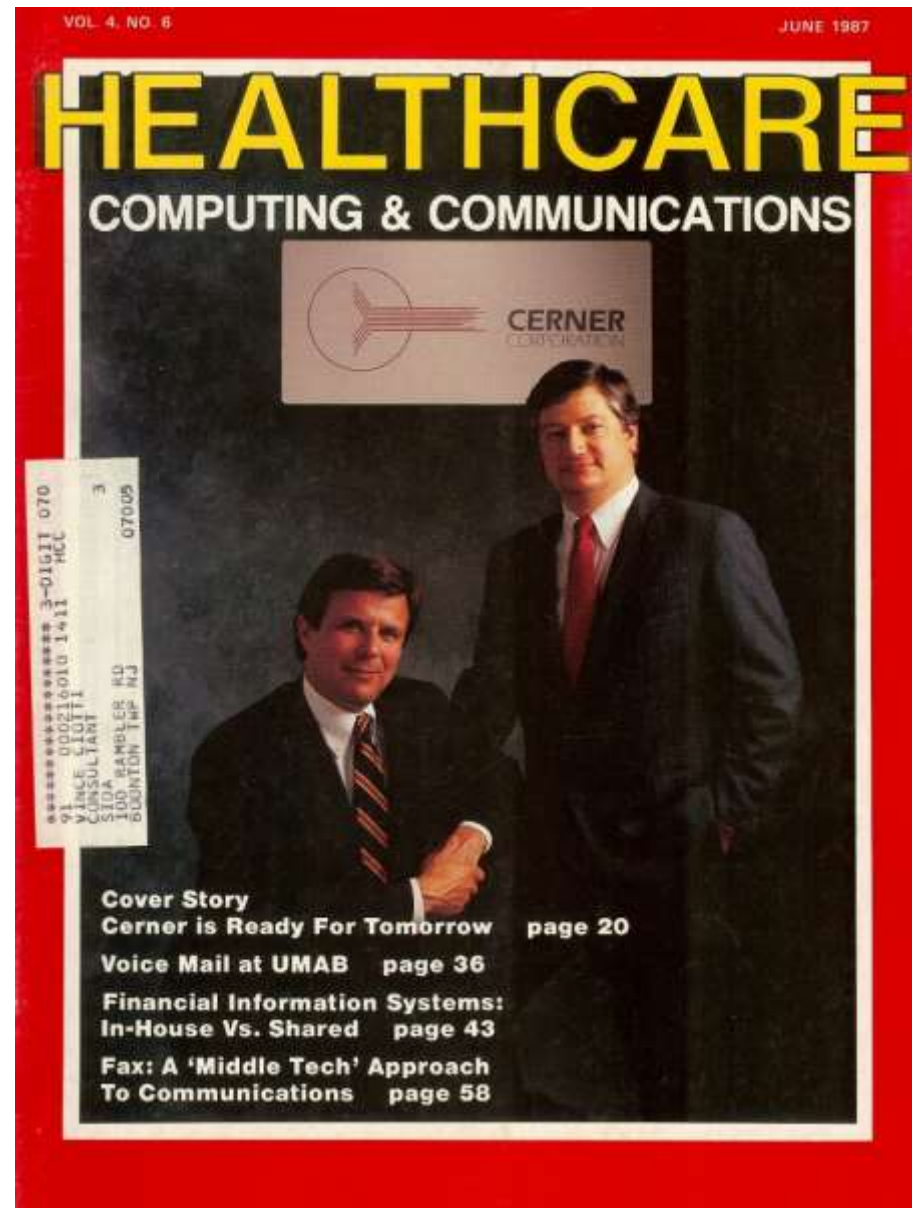
2nd of *Today's* Leading HIS Vendors

- We continue the HIS-tory of *today's* vendors with **Cerner**, whose 2012 HIT annual revenue of $2.6B puts them in a solid 2nd place among HIS vendors:

1. $3.2B = <u>McKesson</u>, née HBOC = Walt Huff, Bruce Barrington, & David Owens
2. $2.6B = <u>Cerner</u>, *still* run by Neal Patterson, co-founded by Cliff Illig & Paul Gorup
3. $1.8B (est) = <u>Siemens</u>, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde
4. $1.5B = <u>Epic</u>. Gee, I have to wonder, just *who* was it who founded them?
5. $1.4B = <u>Allscripts</u>, née Eclipsys, also founded by Harvey Wilson of SMS.
6. $850M (est) - <u>GE Healthcare</u>, née IDX/PHAMIS: created by Malcolm Gleser
7. $597M = <u>Meditech</u>, *still* run after all these years by Antonino Papallardo
8. $375M = <u>NextGen</u>: née Quality Systems Inc. founded by Sheldon Razin
9. $183M = <u>CPSI</u>, founded by M. Kenny Muscat & Denny P. Wilkins *(who??)*
10. $156M = **HMS** (Healthcare Management Systems), Tom Givens & John Doss
11. $150M = <u>Keane</u>, parent giant by John Keane, but HIS div. built by Ray Paris
12. $106M = <u>QuadraMed</u>, née Compucare, founded by Sheldon Dorenfest
13. $75M (est) = <u>Healthland</u>, formerly Dairyland, founded by Steve Klick

Three Founders

- I must confess I never knew <u>Neal Patterson</u> (center) and <u>Cliff Illig</u> (right) had a third partner when they founded Cerner: <u>Paul Gorup</u> (left).

- Another interesting pattern in our strange industry: apparently it takes *three* to tango when it comes to the top three HIS vendors:

  - #1 HBO = Walt Huff, Bruce Barrington and David Owens

  - #3 SMS = Jim Macaleer, Harvey Wilson and Clyde Hyde

- And I must start with a sincere thank you to Neal for taking time form his world-wide travels to introduce me to <u>April Martin</u> who fully lived up to this email billing, providing many Cerner details:

  "Vince .. I bet we can come with some old stuff .. April Martin is brilliant and will help u .. my travel is taking me afar .. connect in a couple of weeks .. good luck."

PGI, Inc. in 1979

- No, not the "PGI" you can Google today in Kansas City that makes iPhone apps, but rather **P**atterson, **G**orup and **I**llig's initials, which they used for the first 4 years as the firm's name back in 1979.
  - (good thing Gorup came before Illig – check *that* acronym!)
  - *((and I must give credit to Neal for that insider joke…))*
- These three entrepreneurs met at Arthur Andersen, *the* giant accounting/consulting firm of the days of the "Big Eight" (check out episode #33 at *hispros.com* for the story of HIS consulting firms). Arthur was renowned for hiring only the "best & brightest" among young college graduates, then training them in the AA way at their St. Charles training facility in IL.
- We'll look at each of their individual backgrounds in turn to see what education & family backgrounds prepped them for entrepreneurship.

Neal Patterson

- From an article in the Kansas City Star, here's Neal's early story in own words:

"I was born in Anthony, Kansas, a small town near the Oklahoma-Kansas border, at the dawn of a new decade—1950, to be precise. The middle of three brothers, I grew up on a farm near Manchester, Oklahoma. My beginnings were pretty humble, but full of lessons. My father and mother were tenant farmers. My family's water was hand-pumped out of a cistern designed to catch the rainwater off the roof. Our "bathroom" was located on a path outside the house—a real issue in winter. The only source of heat was a propane furnace in the living room, which was a popular place when you returned from the outhouse. Our household phone line was a party line with our neighbors on the west side of town. We were a long and a short (ring); if you needed to call the other side of the highway, our neighbor Mabel had to connect you through the operator console "patch panel" in her home. I remember going to our uncle's house to see my first color TV. Each time a new technology was acquired that created value in our lives, it was exciting and noteworthy. I was impatient to see more. Perhaps that was the genesis of my interest in technology. I am still a fan of the "next new.""

Education, Nam, and First Jobs

- "My first business was Patterson Brothers, where we raised hogs to finance our college education. My younger brother, Bryan Patterson, received his B.S. in Business Administration and became my father's trusted partner and successor, continuing to grow the family farm.

- I received my undergraduate finance degree from Oklahoma State University in 1971, and my MBA in 1972. While an undergrad, I served as chapter treasurer of Pi Kappa Alpha fraternity... the Vietnam War was at its peak, and on December 1, 1969, I learned as I watched on a TV in a Stillwater laundromat how external events shape our lives. The draft was reinstated using a lottery system, awarding me with a very low draft number. My service was through the National Guard, as I did my basic training, and I came back for an MBA before starting my career.

- After completing my MBA, I took a job in Kansas City with Arthur Andersen as an information system consultant. This was in the Administrative Services division, which later became Andersen Consulting and then Accenture, the global management consulting, technology services and outsourcing company. At Andersen, I met Paul Gorup and Cliff Illig, fellow twenty-somethings who would later become my business partners."

Cliff & Paul's Roots

- Thanks again to April Martin for inside stories about early days:
  - "Cliff and Neal are both Eagle Scouts. Neal was the youngest Eagle Scout in Oklahoma at one time – which he attributes to his blind, diabetic scout master. Cliff's first entrepreneurial foray was selling T-shirts at scout camp."

- Cliff Illig - graduated from the University of Kansas School of Business in 1972 with a degree in accounting and business administration. He was a system consultant and manager with Arthur Andersen in Kansas City, Mo. He is Cerner's vice-chairman today, and on the Executive Committee of Boy Scouts of America

- Paul Gorup – got his BA in math at Kansas University, and MBA from Dartmouth College. He left Cerner from 1987 to 1999, but returned and is VP of Applications and Data Centers today.

  - In another cute inside story that April shared, Paul was the only one of the founding troika to pass the CPA exam at AA. No wonder they started in the *clinical* side of HIS systems!

Early Days – First Clients

- After spending about 6 years at AA, Neal left to form his own application software company on 9/4/1979. He sold more in that first week than he could do alone, and so later that week, Cliff and Paul met around his dining room table on 9/11 to form **PGI**.

- The 3 started selling to and working for a variety of industries:

  - Paul started working with Cook Paint and H&R Block;

  - Cliff was working with manufacturing and trucking firms;

  - Neal worked with a healthcare client: <u>MAWD Laboratories</u>.

- Sound familiar? Many HIS start-ups first diversified:

  - <u>Steve Klick</u> started out as an DP auditor before forming **Dairyland** as a consulting & payroll firm.

  - <u>John Doss</u> worked at Ernst & Whinney prior to forming **HMS** to write software for NCR minis.

  - Another <u>Neal's (</u>**Pappalardo**<u>)</u> early client was the New York City Criminal Justice Department!

Finding a Home in Healthcare

- Neal & Co. soon found their niche at 4 nearby hospitals:
  - <u>St. John Medical Center</u> (Tulsa, OK) signed as the first development partner with PGI, followed by
  - <u>North Kansas City Hospital</u> (North Kansas City, MO),
  - <u>Saint John Hospital</u> (Leavenworth, KS) and
  - <u>Research Medical Center</u> (Kansas City, MO).

  They pioneered the development of **PGI's PathNet**.

- What's a "**PathNet**?" In the next episode, we'll step back in time a bit to put both the HIS and LIS industries into a bit of perspective to appreciate why **PGI** entered this highly specialized field, and how they rapidly grew to dominate it under their new name of **Cerner**.

WHEN A HOSPITAL IS FIGHTING TO SAVE A LIFE, THERE'S NO SUCH THING AS A LABORATORY COMPUTER SYSTEM THAT'S TOO SOPHISTICATED.

H.I.S.-tory, by Vince Ciotti

Episode #105:

Cerner

Part 2:
LIS entrée

PathNet's speed and efficiency quickly caught on as the new standard of information exchange between the lab and other medical departments at Woods' hospital. When a severe electrical storm caused some hardware problems at Research Medical Center, the doctors learned just how thoroughly they had come to depend upon *PathNet*'s high pace and efficiency.

This trade show booth helped *Cerner* introduce *PathNet*® to the commercial marketplace in the spring of 1984. In just two years, the company had finalized agreements with 41 clients to implement the solution at 49 facilities.

Why LIS?

- This week we pick up the story of **PGI** (**P**atterson, **G**orup & **I**llig) as they entered the HIS market in the early 1980s (they weren't renamed **Cerner** until 1984).

- We saw last week how these 3 ex-AA consultants decided to form a software development firm in 1979, and started with a wide array of industrial clients.

- But what made them pick the HIS industry, and Laboratory Information Systems (LIS) in particular? Actually, they followed in hollowed footsteps:

VOL. 5, NO. 3 — MARCH 1988

HEALTHCARE
COMPUTING & COMMUNICATIONS

lab force

SPECIAL: 1988 LABORATORY SYSTEMS REVIEW PAGE 51

Cover Story
Lab Force More Than A Solution Vendor page 15
DKD Boosts Hospital Profits page 24
Preparing For Automation In The OR page 36

Genius or Serendipity?

- Look at the early days of another HIS giant for a curious parallel:

  - **Medical Information Technology** (familiar?) started in 1969 by offering time-sharing services to a number of industries: auto parts distribution, hotel chain reservation, international oil firm, a cola company, the Hong Kong Telephone company… It was one early client, <u>Cape Cod Hospital</u>, who steered them into LIS in the early '70s, from which they gradually evolved an ancillary suite for RX and RIS, then added ADT and Orders/Results, and eventually an entire HIS suite over the next several decades.

  - **PGI** – While Cliff Illig worked with Brunson Instruments and Paul Gorup worked for H&R Block and Cook Paint, it was Neal Patterson's work at <u>MAWD Laboratories</u> in KC that provided **PGI** with their entrée into healthcare, starting with a billing problem Neal quickly fixed. When Dr. Terrance Dolan left MAWD Labs for <u>St. John Medical Center</u> in Tulsa, he called on Neal again…

The **Path** to an LIS **Net**work

- Dr. Dolan asked Neal to address the *entire* array of complex sub-departments within the Lab at St. John's: hematology, chemistry, serology, urinalysis, microbiology and anatomic pathology.

- Although Neal had learned a lot about Lab operations at MAWD, he turned to a bright, young programmer he worked with there, Liane Lance, who had been hired from North Kansas City Hospital where she learned the Lab ropes as a medical technologist.

- Eventually becoming an executive at **Cerner**, Liane helped Neal & Co. put together a proposal to automate the entire lab operations at St. Johns. In the spring of 1981, Neal presented to the Board of Directors at St. Johns and **PGI** won its first healthcare IT contract.

Complete PathNet Design

- The daring design of a "Total LIS" caught on quickly, and three other facilities signed up as pilot sites:
  - Research Medical Center in KC, Dr. James Flynn was Pathologist and Janice Woods a Med. Tech.
  - Truman Medical Center in KC; Jim Mongan was Executive Director
  - North Kansas City Hospital, where Liane was aided by Vanetta Wick.
- Neal Patterson developed a display of cylinders to illustrate the overall design for **PathNet** (right), which is now legendary in **Cerner** circles.
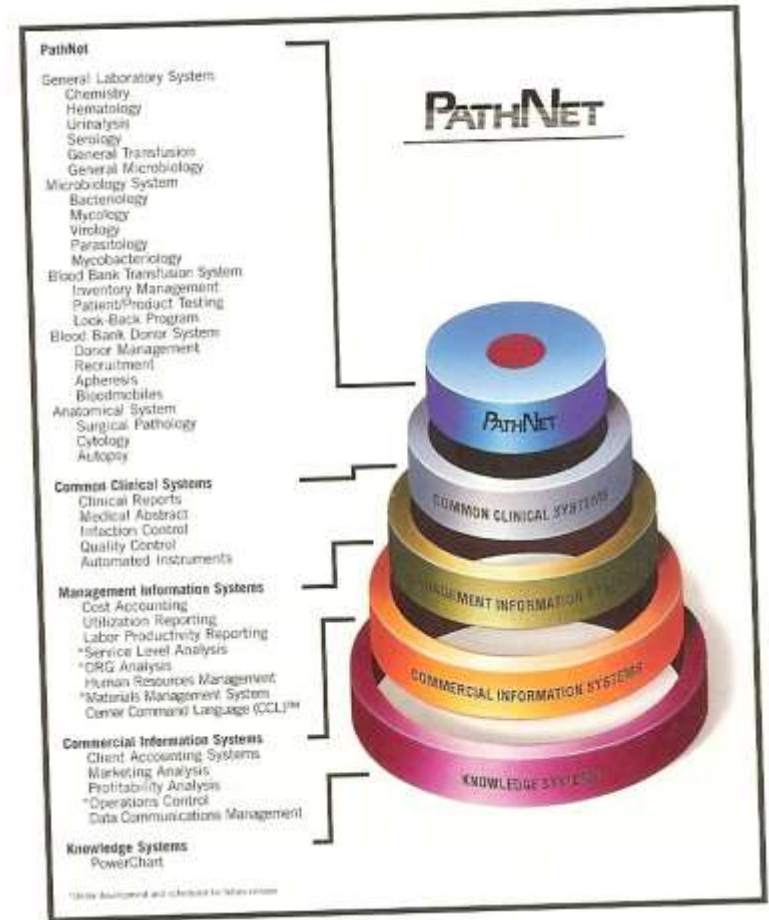
Four Rapid & Successful Go-Lives

- The four pilot hospitals came up rapidly over the next two years:

    -- St. Johns in Tulsa in August '82

    – North Kansas City in May '83

    – St. Johns Leavenworth in Aug '83

    – Research Medical Center in Oct '83

- **PGI's** next challenge was finance$: building a total LIS took a large team of costly personnel, and although four hospital sales was encouraging, the maintenance from just 4 sites could hardly cover ongoing expenses. Neal had exhausted all his loan potentials in KC, so he hired Hal Oppenheimer to help raise some venture capital.

- Neal & Hal attended an Inc. magazine seminar in Chicago where Hal met a fellow Harvard graduate from <u>First Chicago Capital Corporation</u>, Paul Finnegan. They talked at length about **PathNet** over dinner, and Neal left Chicago with $1.5M funding.

LIS Market in Early 1980

- The capital infusion allowed them to take **PathNet** to market, and **PGI** started competing with many established LIS vendors. Just what was **PGI** up against? Check out these charts from <u>Sheldon Dorenfest</u>'s 1980 "Guide," *the* bible of the HIS market back then:

Type of System	Total Packaged Systems
Laboratory	22
Data Collection	21
HIS/MIS	7
Pharmacy	6
Finance	5
Admissions	1
Nurse Staffing	1
Total	63

- The table from SIDA's survey of 250 sample hospitals shows just how hot LIS systems were back then, outpacing "Data Collection," the domain of **HBO's** MedPro, **SMS'** ACTIon and **McAuto's** HDC.

- Pharmacy was way down the list, and RIS didn't even appear! So Neal & Co. had picked a very hot niche, which probably explains First Chicago's eagerness to help fund the new system & company.

Just *Who* Was PGI Up Against?

- Just who were the leading LIS vendors at the time? Here's another gem from Shelly Dorenfest's 1980 Guide showing # of clients by major application area out of 250 sample hospitals:

- Anyone remember these early LIS competitors:
  - Spear, BSL, MedLab, DNA, LCI, Genetron?

  Could be its own episode...

- More importantly, how well did fledgling **PGI** compete against these early LIS-ers?

Vendor	Total Systems	Laboratory	Data Collection	HIS/MIS	Pharmacy
HBO	11	---	11	--	--
Spear	5	3	--	--	2
BSL	5	5	--	--	--
Medlab	4	4	--	--	--
SMS Action	4	--	4	--	--
McAuto	4	1	3	--	--
Medicus/Spectra	3	--	--	2	--
DNA	3	2	--	--	1
Health Central	3	--	--	--	--
Technicon	3	1	--	2	--
Meditech	2	1	--	--	1
DEC	2	2	--	--	--
Computer Synergy	2	--	1	--	--
Medical Pharmaceutical Intern.	1	--	--	--	1
Lab Computing Inc	1	1	--	--	--
Herman Smith & Associates	1	1	--	--	--
Genetron	1	1	--	--	--
Medelco	1	--	1	--	--
Armed	1	--	--	--	--
General Computer Corporation	1	--	--	--	1
Blue Cross, Wisconsin	1	--	--	--	--
Nadacom	1	--	--	1	--
Datacare	1	--	--	1	--
Computer Sciences	1	--	--	1	--
Alverno	1	--	1	--	--
Total	63	22	21	7	6

The LIS Market in 1988

Company	Product	Hardware	# of Installs
LCI	LabCom	DEC, IBM PCs	200
Meditech	LIS	DEC, DG	180
3M	Medlab	DG	144
Sunquest	FlexiLab	DEC	105
TDS	4000	IBM mainframe	100
CHC	LabCare	Stratus, TI	97
Antrim	LDMS	DEC PDP-11	90
Citation	LIS	IBM PCs	88
Cerner	PathNet	DEC VAX	72
HBO	CLINSTAR	DG MV Series	71
Biovation		Altos	70
Lab Force	HYBRID	Prime	67
SAC	Clini-CAL	DEC PDP-VAX	65
Western Star	Bloodbank	IBM PC	65
SMS	LIS	DEC VAX	55
Rubicon	LIS	DEC, IBM	50
Soft	SOFTLAB	Altos, AT&T, IBM	48
Terrano	ILS-5	Prime	39
KDS	LIS	Tandem	32
CompuLab	LIS	CLX	26
Fletcher-Flora	System 2000	Proprietary	23
SAI	SAINT	Proprietary	23
ALS	AdVANTAGE	HP 3000	10

- **PGI's** PathNet sold *very* well throughout the 1980s, as turnkey mini systems for HIS and LIS swept the shared system field. Check out this list I culled from an LIS survey in the March 1988 issue of Bill Child's Healthcare Computing and Communications magazine.

- Known as **Cerner** by 1984, Neal & Co. claimed 72 sales, by 1988, ranking 9th among the 23 LIS vendors who responded to the survey.

HIS Vendors By Revenue in 1986

TOP 25 HOSPITAL INFORMATION SYSTEM VENDORS		
(per "HealthWeek," May 9, 1989)		
($$ in 000's)		
VENDOR	1986 SALES (MILLIONS)	1985 SALES (MILLIONS)
1 IBM	$925	$825
2 SMS	$375	$312
3 MCAUTO	$185	$200
4 DEC	$175	$140
5 HBO	$145	$180
6 DG	$140	$100
7 UNISYS	$125	$122
8 BAXTER	$115	$90
9 NCR	$75	$75
10 HP	$50	$50
11 TDS	$40	$51
12 PHS	$30	$30
13 HONEYWELL	$30	$40
14 SAI	$30	$33
15 MEDITECH	$28	$20
16 TANDEM	$25	$28
17 CHC	$20	$17
18 FERRANTI	$20	$22
19 CERNER	$17	$10
20 MOTOROLA	$15	$30
21 CPHA	$15	$15
22 EDS	$15	$15
23 3M	$12	$10
24 GE	$12	$12
25 GERBER	$12	$7

- Those of you who follow **HIS Pros'** annual "Top 100 Vendors by Revenue" in Health Data Management magazine may marvel at how different the HIS landscape looked 27 years ago! Only *two* vendor names remain unchanged in 2013:
  - **Meditech**, ranked #15 with $28M in revenue
  - **Cerner**, ranked # 19 with $17M in annual revenue
- Most other leading vendors vendors re-named, sold or went out of business…

Next Episodes…

- We'll pick up the story with:
  - **PGI** renamed as **Cerner** – how did Neal & Co. came up with *that* name?
  - Going public – what if you had bought a share of **Cerner** stock for $16 in their 1986 IPO?
  - Acquisitions – most of **Cerner's** growth was indigenous, but they did buy a few gems, eg:
  - Growth – their amazing growth in # of FTEs, clients & employees…

More and more hospitals are including Local Area Networks (LANs) in their information system designs. Indeed, statistics sited in the January 20, 1987 edition of HOSPITALS magazine (compiled by Shared Data Research of Hudson, Ohio) indicate that the use of LANs within U. S. hospitals increased 500% in 1986.

Why? Because, by design, LANs provide a cost-effective way to interconnect computers to share programs, data and peripheral equipment.

CITATION was one of the first companies to offer a LAN-based laboratory information system. By developing interfaces to more than 90 clinical instruments, virtually all the major hospital information systems and now physician offices, CITATION information systems continue to lead the way, providing the connectivity and flexibility laboratories need to perform efficiently in a rapidly changing health care environment.

From standard features for managing and reporting online instrument data acquisition, chemistry, hematology and urinalysis to expanded applications for microbiology, blood bank and business management, CITATION does it all.

CITATION consistently delivers the innovative solutions necessary to meet the information management challenges of clinical laboratories. We do it by helping them improve their productivity and service while containing costs and enhancing the quality of patient care.

When it comes to excellence in laboratory information systems, the first choice is still the best choice. Find out why. Call or write us at 2312 Millpark Drive, St. Louis, Missouri 63043, 314/428-2900 or 800/325-1382.

CONNECTIVITY BY DESIGN

CITATION.
"The First Choice in Laboratory Information Systems"
INFO/CARD 27

H.I.S.-tory,
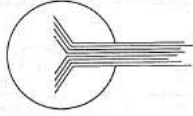
by Vince Ciotti

Episode #106:

Cerner

Part 3:
~~PGI~~ & IPO

1,000,000 Shares

CERNER CORPORATION

Common Stock

Of the shares of Common Stock offered hereby, 800,000 shares are being sold by the Company and 200,000 shares are being sold by the Selling Stockholders. See "Principal and Selling Stockholders." The Company will not receive any of the proceeds from the sale of the Common Stock by the Selling Stockholders. Prior to this offering there has been no public market for the Common Stock of the Company. See "Underwriting" for a discussion of the factors considered in determining the initial public offering price.

See "Certain Factors" for information that should be considered by prospective investors.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION NOR HAS THE COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	Price to Public	Underwriting Discounts and Commissions(1)	Proceeds to Company(2)	Proceeds to Selling Stockholders(2)
Per Share	$16.00	$1.12	$14.88	$14.88
Total(3)	$16,000,000	$1,120,000	$11,904,000	$2,976,000

(1) The Company and the Selling Stockholders have agreed to indemnify the Underwriters against certain civil liabilities, including liabilities under the Securities Act of 1933. See "Underwriting."

(2) Before deducting expenses of the offering estimated at $554,000, of which $546,000 will be paid by the Company and $8,000 by certain of the Selling Stockholders.

(3) The Company and certain of the Selling Stockholders have granted to the Underwriters a 30-day option to purchase up to 150,000 additional shares of Common Stock solely to cover over-allotments, if any. To the extent the option is exercised, the Underwriters will offer the additional Shares at the Price to Public shown above. If the option is exercised in full, the total Price to Public, Underwriting Discounts and Commissions, Proceeds to the Company and Proceeds to the Selling Stockholders will be $18,400,000, $1,288,000, $13,176,240 and $3,935,760, respectively. See "Underwriting."

The shares of Common Stock are offered by the several Underwriters, subject to prior sale, when, as and if issued and delivered to and accepted by them, and subject to the right of the Underwriters to reject any order in whole or in part. It is expected that delivery of the Shares will be made against payment therefor at the offices of Alex. Brown & Sons Incorporated, Baltimore, Maryland on or about December 12, 1986.

Alex. Brown & Sons Incorporated   **Kidder, Peabody & Co.** Incorporated

The date of this Prospectus is December 5, 1986.

From **PGI** -> **Cerner** (& Lillig -> Patterson)

- In 1984 when **PGI** was taking PathNet to market, they realized the name lacked a little bit of pizazz (to put it mildly…), so they hired a trio of advertising executives to come up with a hot new name.

- Looking for a name that had both health and technology in it, the trio came up with a number of creative possibilities, such as:

  – Automated Information Management, Inc. (**AIM**) & **Novus** (ironic how *both* were later used at **SMS**: **AIM** was their **A**dvanced **I**mplementation **M**ethodology, and **Novus** ≈ Novius)

- Neal rejected both, and the ad gurus produced a list of *foreign* words for him to consider, one of which caught the eye of Jeanne Lillig, PGI's 7th employee, who went into Neal's office and picked:

  – **Cerner** – which comes from the Latin "cernere," meaning to discern or sift. In Spanish it means "to blossom" and in French " to encircle." So after 5 years, **PGI** became **Cerner**, and Jeanne underwent a name change too when she later married Neal!

Ups and Downs…

- Most HIS vendors eventually take their firms public so the initial investors (and lucky employees who are given stock and/or purchase options) can cash in on their success. A few exceptions:
  - **Meditech** and **Epic**, two of the biggest and longest success stories in our biz, have kept themselves private – what their potential worth would be in a public offering is staggering…
- Almost every other leading HIS vendor is publicly traded (**McKesson**, **Siemens**, **Allscripts**, **GE**, **NextGen**, **CPSI**…), and Neal and Co. were no exception, joining the public bandwagon. Cliff Illig gave three primary reasons for their IPO in October, 1986:
  1. Initial investors expected it to gain a return on their capital.
  2. Going public increases prospects confidence in the vendor
  3. Like SMS, Cerner extended generous stock options to valued employees so they could share in the largess (and risks!)

What If??

- I mused back in the episode on **SMS**' Initial Public Offering (# 11 at *hispros.com*) how much the few hundred penny-a-share stocks I was given in 1969 would have been worth *today* after all the stock splits and revenue growth, up to their sale to Siemens...

- Well, thanks again to <u>April Martin</u>, here's **Cerner's** math:

  "How much would a single $16 share of Cerner stock purchased in the IPO be worth today? Here are a few scenarios using yesterday's $47.49 close:

  – If you bought *one* $16 share in 1986, it would be worth $3,039 today.

  – If you invested $400 for *25* shares, they would be worth $75,984 today.

  – If you were flush enough to be able to invest $10,000 in Cerner in 1986 (buying *625* shares), those shares would be worth $1,899,600 today.

  Here's how you calculate it: take the initial dollar amount invested, divided by the $16 price to give you a number of shares. Then double that number of shares 6 separate times for the number of stock splits that have occurred since going public. Then multiply the resulting number of shares by the stock price at the close of whatever business day you want."

On The Other Hand…

- Anyone who remembers the year 2008 knows there is a downside to these incredible profits too – my pension *still* hasn't recovered!

- Indeed, one of the saddest memories of my career was serving as President for **Sentry Data** in the mid-80s under the tutelage of Sheldon Dorenfest who took it over and obtained Chapter XI protection while we tried to find a buyer (#21 at *hispros.com*).

- **Sentry** (née DATX) was a red-hot minicomputer vendor who's stock went up into the $20 range after their IPO, but then tanked due to a number of factors, until bankruptcy took it to pennies.

- I remember taking a call one day from a broker who had steered his clients into investing in **Sentry**, and wanted to know what the prospects looked like. I just mumbled vague and uncertain generalities until he got the idea…

This One's Been A Winner!

- In **Cerner's** case, it's been all positive however, as shown in the chart below of the annual revenue for the top 13 HIS vendors that over the past 20+ years (**Cerner** in appropriately dark **green**).

25 Year Annual Revenue HIS-tory
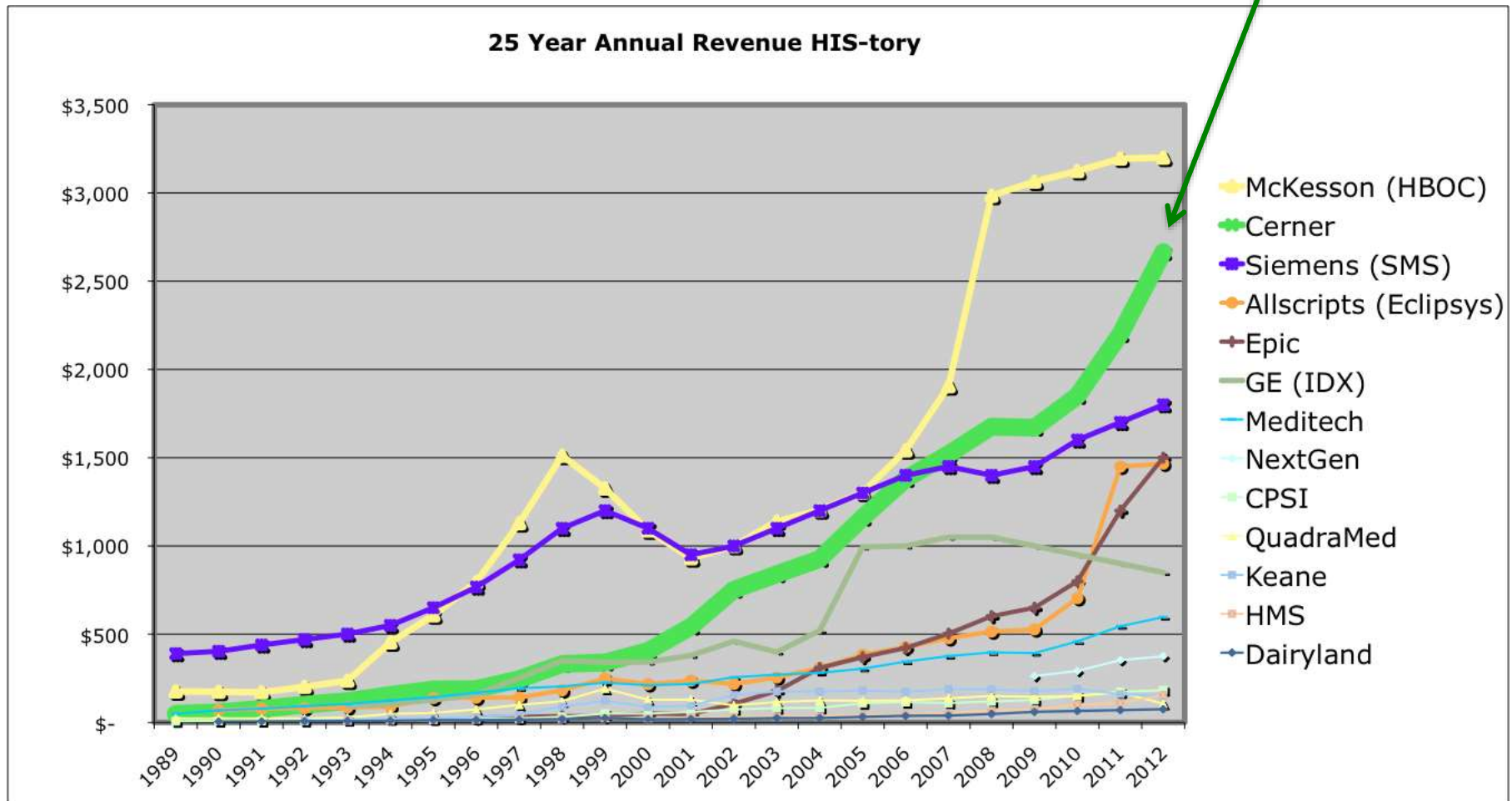
National Media Recognition

- Within two years of taking PathNet to market, **Cerner** had signed agreements with 41 clients, while revenue and # of employees jumped four-fold. This caught the eye of Bill Child's <u>Healthcare Computing and Communications</u> rag, *the* source of HIS vendor info back then.

- Playing on a classic line from Butch Cassidy and the Sundance Kid, HC&C entitled a 1986 feature article on Cerner "***Who Are These Guys*** At Cerner Corporation?" The article quoted Terry Armstrong of the giant chain HCA who had picked PathNet earlier: "We looked at all the Lab systems on the market and found PathNet to be most functional."
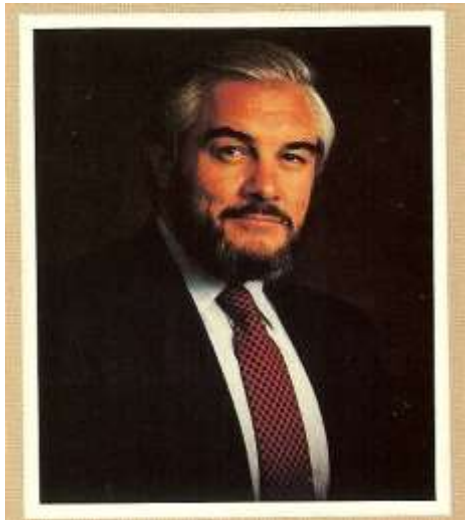
Super LIS Sales Track Record

- By the end of the 80s, Cerner was dominating LIS competition as shown in this table from the <u>Dorenfest 3000 Data Base</u> of 1990:

Three-year Trends in Software Vendor Strength in Laboratory Computer Systems Buying Decisions Among 2,854 Hospitals

Software Vendor	1987			1988			1989		
	Wins	Losses	Net	Wins	Losses	Net	Wins	Losses	Net
Cerner	44	1	43	42	1	41	68	2	66
Sunquest	45	--	45	39	2	37	67	2	65
Meditech	19	4	15	21	6	15	38	6	32
HBO	7	4	3	10	5	5	22	14	8
SMS	4	1	3	7	—	7	19	3	16
Citation	20	--	20	20	4	16	18	6	12
CHC	20	--	20	10	3	7	16	16	--
Terrano Corp.	4	1	3	7	1	6	10	3	7
Antrim Corp.	3	--	3	3	—	3	10	--	10
3M	4	10	(6)	2	12	(10)	8	26	(18)
Spectrum	4	6	(2)	4	8	(4)	8	10	(2)
American Express	15	3	12	14	4	10	7	3	4
Software Vendors with 6 or less wins in 1989	76	35	41	80	36	44	86	55	31
Self-developed	6	14	(8)	12	14	(2)	21	25	(4)
TOTAL	271	79	192	271	96	175	398	171	227

How Did They Do It?

- Many of these LIS competitors were hardly pushovers, especially:

  #2 **Sunquest** – who after a few years of ownership change under Misys, is now back as a major player in the LIS niche today.

  #3 **Meditech** – who started out as an LIS vendor and whose Lab suite runs standalone in many hospitals with "foreign" HIS-es.

  #6 **Citation** – who's LIS led the 1980s' microcomputer revolution in *small* hospitals with their IBM PC servers and Novel LAN.

- To see just how Cerner beat these erstwhile competitors, next week we'll step back in time to re-trace a detailed LIS search our firm conducted for a large hospital about 20 years ago.

- All of the steps we followed back then still apply to buying an EHR today, so it should be an informative story.

Vote on LIS Vendors			
Scoreing: 3 = highest, 2 = runner up, 1 = lowest			
DEPARTMENT	ALS	CERNER	SUNQUEST
Blood Bank	1	3	2
Clerical	1	3	2
Hemotology	1	3	2
Chemistry	2	3	2
Hematology	2	3	1
Blood Bamk	2	3	1
DP	2	3	1
Toxocology	2	3	1
Microbiology	2	3	1
Serology	2	3	1
RA	2	3	1
Chemistry 1	2	3	1
Chemistry 2	2	3	1
Administration	2	3	1
Totals:	25	42	18

H.I.S.-tory,
by Vince Ciotti

Episode #107:

Cerner

Part 4:
1993 LIS
Search

Aug 16, 2013, 11:01am CDT | UPDATED: Aug 16, 2013, 12:02pm CDT

Forbes ranks Cerner among world's most innovative companies

Autumn MorningSky
Web Producer-
Kansas City Business Journal
Email | Twitter | Facebook
| Google+

A Kansas City company has landed on Forbes' list of the world's top 100 most innovative companies.

Cerner Corp. landed in the No. 13 spot, topping tech giants like Facebook and Apple. Companies on the list are ranked by investors, who identify companies who are innovative now and are expected to continue to innovate in the future.

⊞ Enlarge

Andrew Grumke | KCBJ
Kansas City-based Cerner Corp. is one of the world's most innovative companies, according to Forbes.

Just How Did Cerner Do it?

- The new name and capital from its 1986 IPO helped **Cerner** tremendously, but how did they rise to the top of the LIS ranks so quickly over such erstwhile competitors as **Sunquest** & **ALS**?

- To learn the answer from a *hospital's* perspective, this week we're going to review the results of a detailed LIS search our firm conducted for large PA client back the early 1990s.

- We bypass the traditional over-reliance on an RFP feature checklist, with its reams of boilerplate questions, answered with a rubber-stamp "yes" response by vendors. Instead, we rely heavily on *end users*:

  - Using *scored* checklists to rate demos

  - Reviewing actual user *documentation*

  - *Peer-to-peer* telephone reference calls

  - Un-chaperoned site visits to *non-flagships*

RFPs Suck!

How to Master the RFP System Once and for All to Win Big Business

TOMSEARCY
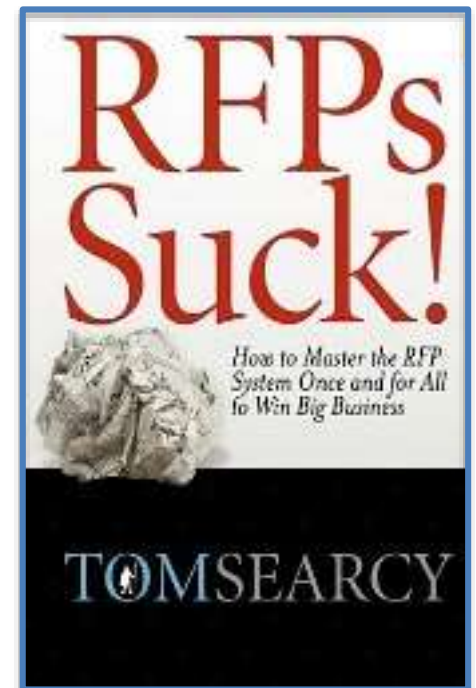
Wyoming Valley Health System

- Our client was a large, 2-hospital IDN in Wilkes-Barre, PA, formed by the merger of two former competitors. Both needed a new LIS so the search was a big step to getting the two facilities together.

- Their combined beds were pretty large (400 and 200 beds), so the search centered on those LIS vendors who could meet the complex needs of a large hospital, which left out LIS vendors like Citation who concentrated on smaller hospitals of ≈100 beds.

WILKES-BARRE GENERAL HOSPITAL
575 North River Street, Wilkes-Barre
570-829-8111
FEATURING:
- THE HEART AND VASCULAR INSTITUTE
- NESBITT WOMEN'S AND CHILDREN'S CENTER
- PARTNERSHIP WITH:
  PENN STATE CANCER INSTITUTE
  PENN STATE HERSHEY MEDICAL CENTER – NEUROSURGERY

FIRST HOSPITAL WYOMING VALLEY
Nesbitt Memorial Medical Center
562 Wyoming Avenue, Kingston
570-552-3900

- The 2 Lab Directors had already narrowed the LIS field to the 3 leaders: **ALS**, **Sunquest**, and **Cerner**.

- We also included the incumbent HIS vendor, **SMS**, to check out their mini-based LIS product.

First Step: *Meaningful* Demos

- Sounds like an oxymoron, but demos can be made meaningful to:
  - Educate users of legacy LIS-es about the state of the art
  - Place the travel burden on the vendor in the early stages
  - Help the various departments appreciate each others' needs

- We used a score sheet to rate:
  - User-friendliness (GUI)
  - Patient search (MPI)
  - Security (pre-HIPAA)
  - Flexible screens/reports
  - User-defined fields
  - Navigating field/screens

As this graph shows, **Sunquest** & **Cerner** were tops, **ALS** in the middle, and **SMS** last.

LIS Demo Results

Legend:
- 10. Overall
- 9. Screen navigate
- 8. User fields
- 7. Batch Process
- 6. Notes
- 5. Report writer
- 4. Flexibility
- 3. Security
- 2. Patient search
- 1. User friendliness

X-axis: PERFECT, ALS, CERNER, SMS, SUNQUEST
Y-axis: 0 to 200
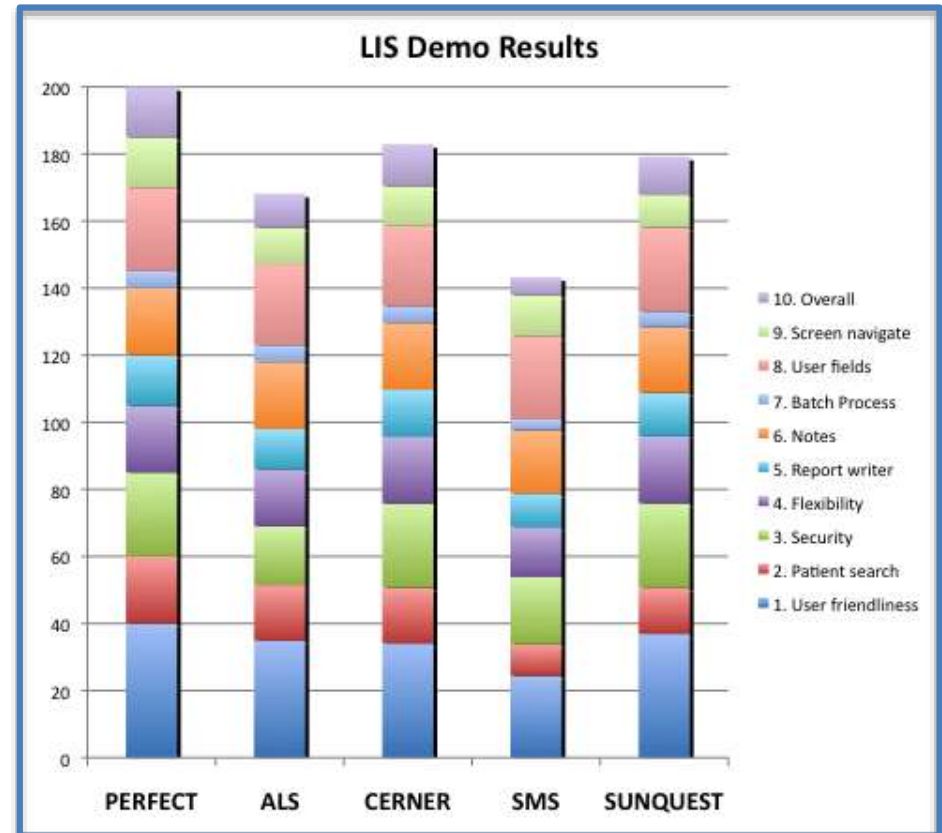
Automotive Analogy

- Car salesmen are probably the epitome of smooth-talking sales reps, and our next selection step is best explained by an analogy to buying a new/used car.

- What **document** about a vehicle you are considering tells you the most about it:
  - The brochure with color pictures?
  - The MSP price tag on the window?
  - A magazine review next to an ad?
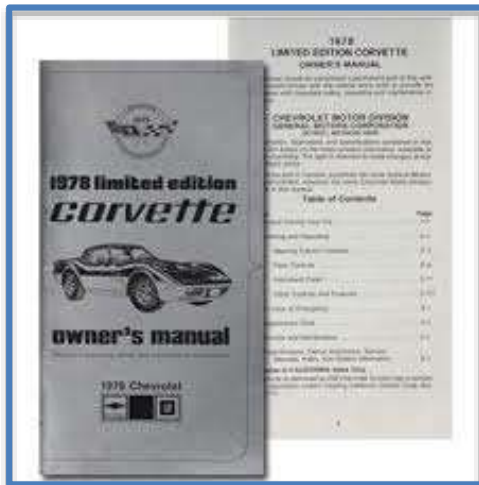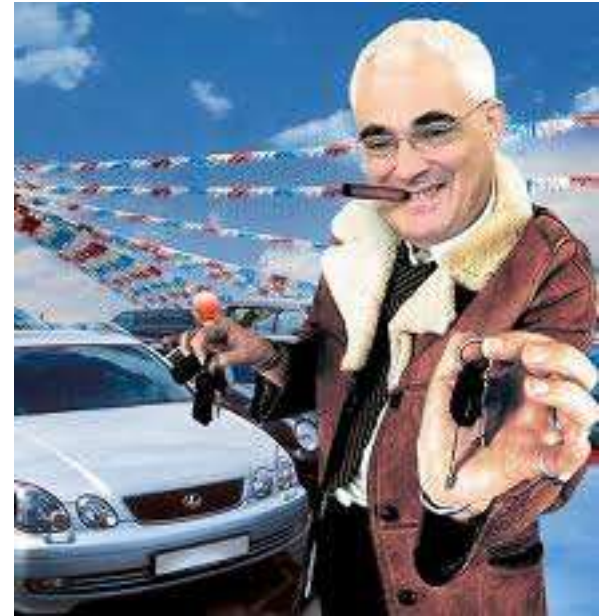
- Actually, it's right there in the glove box, and it all facts & figures, with no sales fluff!
  - HP, 0-60 times, MPG, service intervals…
  - more facts & figures than any auto RFP.
- So what's the analogy with buying an LIS?

User Documentation!

- It's what you're going to live on during the crucial implementation and for years afterwards, so check it out well in the sales cycle.

- Today of course there are no paper manuals, but every vendor offers e-versions instead, whether CDs, pdf files, or web access.

- As with car manuals, these documents do not contain any sales fluff to speak of, but delve right into the facts you need to know:

    - How many steps to build *dictionaries*?

    - What are the fields on the XYZ *screen*?

    - What are the system's standard *reports*?

    - Is there *any* section or chapter on my area of interest or sub-department?

- And what if the vendor doesn't *have* user documentation – they claim their system is so simple it doesn't need it? Don't buy it!! It's all you can count on to define the system in your contract...

How Did Cerner's Manuals Rate?

- We used another checklist for users to evaluate their manual (or chapter or section), just like with the demos, with questions on:

  Age – how long ago was it written, vs. when was it last updated?

  Style – is it in "Geek" or English – without jargon & acronyms?

  Contents – is there as overview, sample reports, screen shots…

  Use – overall, how well would you and your staff actually *use* it?
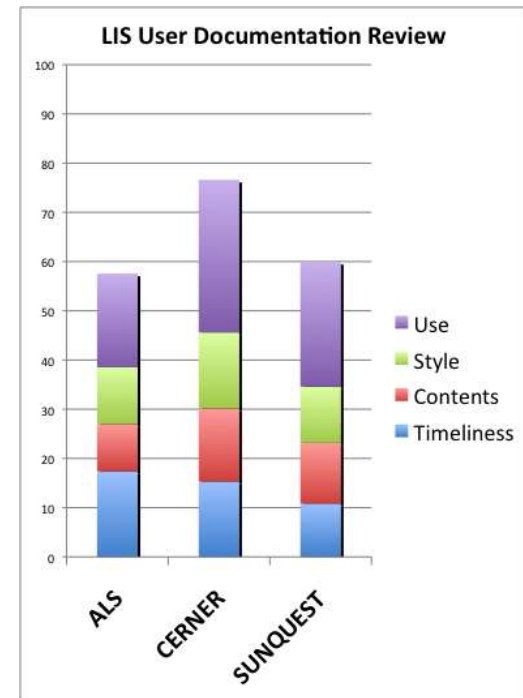
- As you can see on the graph of the scores, **Cerner** *rocked*, blowing away both **Sunquest** and **ALS** in all categories (after the demos, **SMS** was eliminated, but they usually have good documentation).

Who Should Call *Whom*?

- Telephone reference calls are a fairly common next step, but there's two issues that can make them somewhat ineffective:

  1. *What hospitals* should you call – "flagship" sites the vendor put all over their proposal & marketing materials, or abject failures that their competitors goad you to call?

- Actually most vendor references follow the classic bell-shaped curve, with a few winners who get extra attention to stay happy, and the inevitable unhappy clients threatening a lawsuit…

- Best to avoid both, and rather call "normal" client sites, gleaned from a Request For Information early in the process requesting:

  - *Local* sites in your state – to check for remote support, EDI…

  - The *product*/release they are selling you, not older ones…

  - Your *size*: be it large IDN, small CAH, or average sized…

  - Your *interfaces* – both primary HIS and key niche systems…

Who Should *Make* The Calls?

2. <u>Who Calls</u>? It's tempting to have your C-Suite make the calls:

– CEO to CEO, CFO to CFO, etc., to get high-level "buy-in"

But think of just how much (little?) your execs knows about day-to-day operations of the *current* system you're replacing…

- In over 200 system selections, we've learned that the best people to make the calls are the *end users* who'll be stuck with the system daily, and whose buy-in is crucial for implementation.

- In the case of an LIS, we had our reference calls made by the selection team members: Lab Directors, Managers over sub-departments like Blood Bank, AP, Hematology, Chemistry, etc., as well as IT clinical analysts. And *who* did they call? Their **counterparts**, so they could talk shop about day-to-day challenges in the real world. Above all, avoid any clients who insist all such calls go to the CIO only, as they may be serving as a censor…

Phone Reference Call Results

- We used another scored checklist for users to ask questions covering:
  - Overall satisfaction – yea or nay?
  - Are any key features *missing*?
  - Ongoing support: remote & on-site
  - Hardware response times/reliability
  - Training: on-site & classes at HQ
  - User-friendliness: or lack of same
  - Implementation: vets or rookies?
- Sorry **KLAS**, but **no one** gets a 90%!

- When you talk to end users in the *real* world on various shifts & depts., the average scores we have seen in over 200 selections (about 10,000 calls) is in the low 70th percentile. **ALS**, **Cerner** & **Sunquest** all did pretty well, with average scores around 80%.

Telephone Reference Calls

Legend:
- 10. Top 10 Features
- 9. Missing Features
- 8. Ongoing Support
- 7. Hardware
- 6. Training
- 5. Documentation
- 4. Installation
- 3. User Friendliness
- 2. Strengths - Weaknesses
- 1. Overall Satisfaction

X-axis: PERFECT, ALS, Cerner, Sunquest
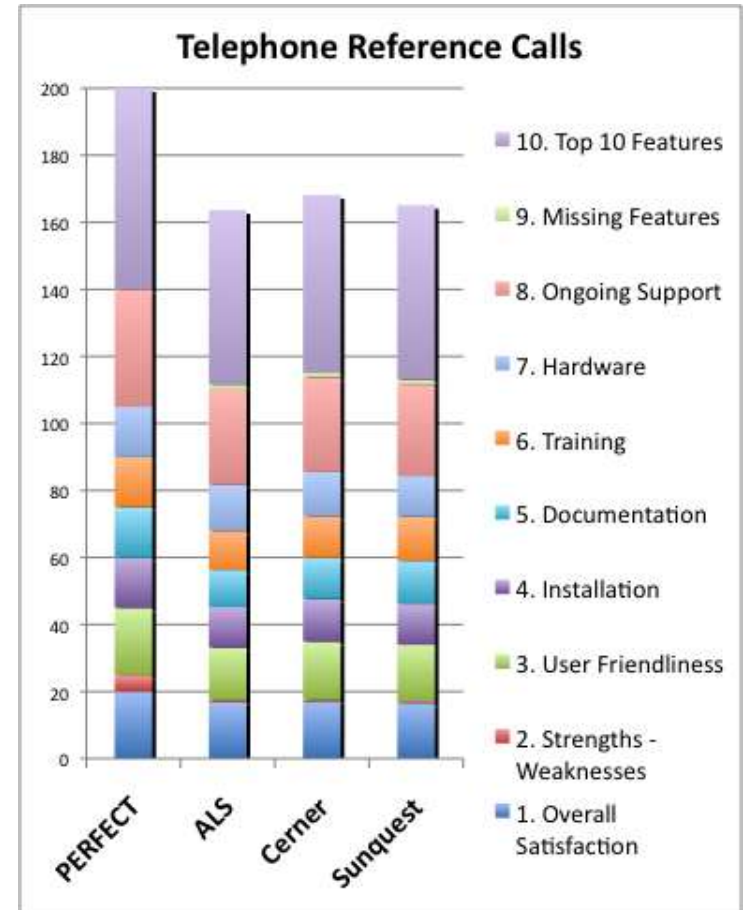
Last And Most Important Step

- Site visits are the last step and potentially the most informative – whether you're shopping for an LIS, EMR or a full HIS, nothing beats having your end users walk the floors and verify system performance in the real world with their own eyes & ears.

- So how can you screw up this step? Three things to avoid:

  1. Again, bring your *end users*, not C-suite, and have them walk the dept/floors and talk shop with their counterparts. No executives from *either* side – they talk at too high a level…

  2. Prohibit any "chaperones" in the form of vendor or IT dept. personnel who tend to put spin on any complaints voiced. Make the reps sit in the lobby and work their cell phones…

  3. No "flagship" sites, but rather pick them yourself from what you learned about their clients on the phone: *your* size and proximate location, on *your* product/release, with users open and willing to talk about both the pros & cons *honestly*.

Wyoming Valley's Results

- This was the defining step for Wyoming Valley as the chart shows. **Cerner** dominated **Sunquest** & **ALS**:

- Our scored checklist covered:

    - "Top 10 List" of key features each department had to have

    - Ease of use – as witnessed by our end users *own* eyes & ears

    - Post-live support – does anyone *ever* come visit again?

    - Implementation – just who taught whom in the real world?

    - Sales veracity – were there (m)any fibs told during the sale?
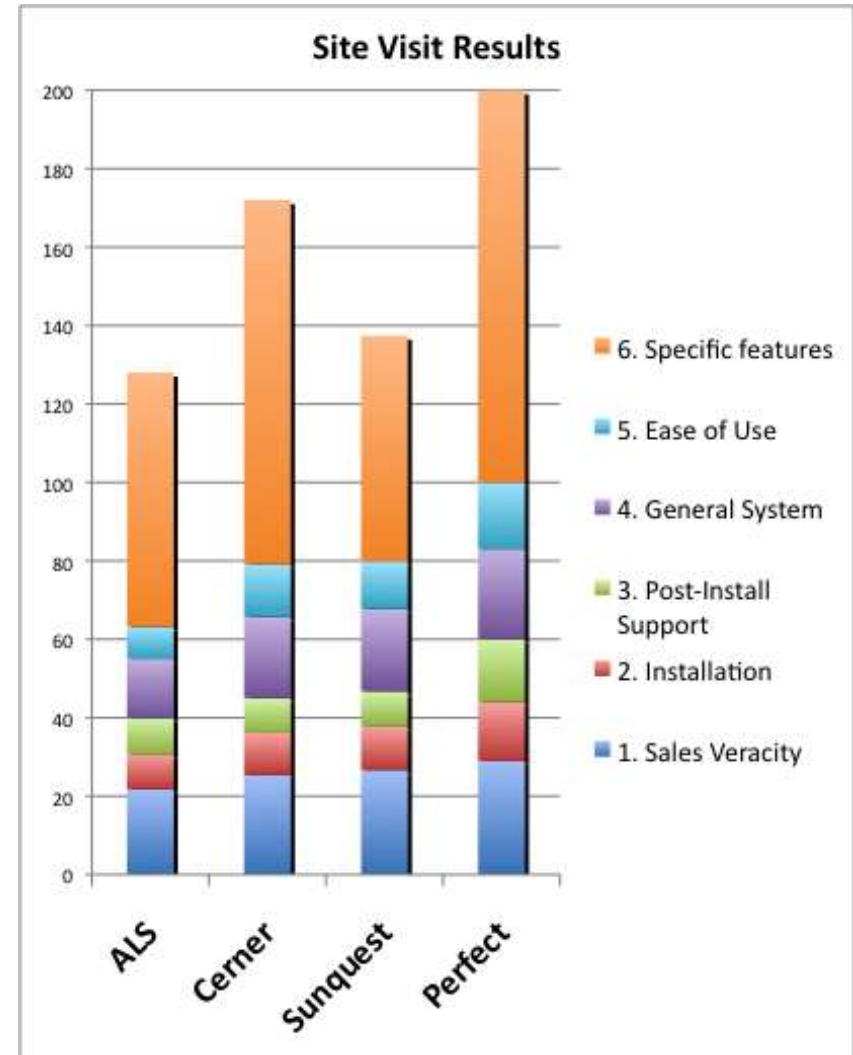
- **Cerner** just blew the others away!

Site Visit Results

- 6. Specific features
- 5. Ease of Use
- 4. General System
- 3. Post-Install Support
- 2. Installation
- 1. Sales Veracity

LIS Selection Recap

- As this chart shows, **Cerner** rose to the top of the Lab market by excelling in every aspect of an HIS:
  - Sales & marketing (demos)
  - User documentation (manuals)
  - Implementation & support (phone references)
  - System functionality (site visits)
- Next week we'll cover the development of their pre-Y2K "Millennium" HIS product suite based on their Health Network Architecture (HNA), acquisitions, and hardware evolution from DEC and HP minis to remote hosting.

Summary of LIS Vendor Scores
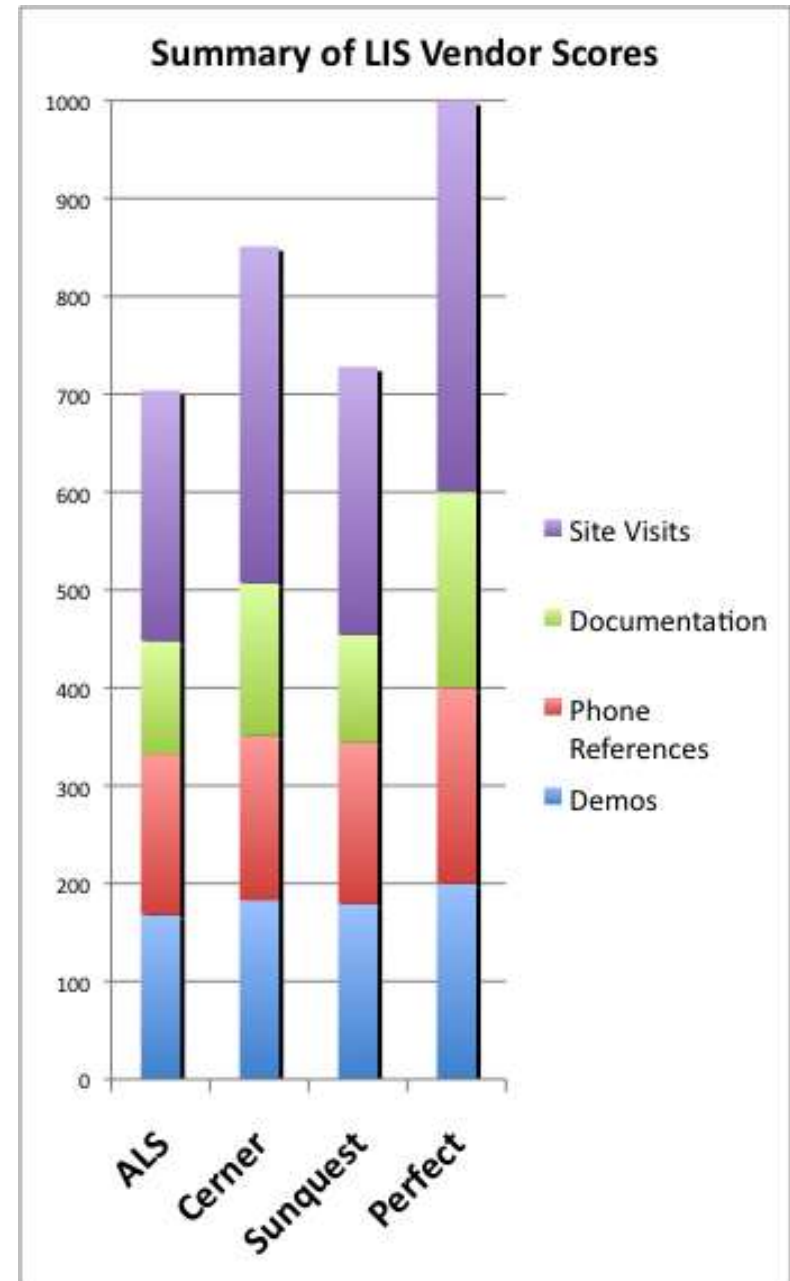
H.I.S.-tory, by Vince Ciotti

Episode #108:

Cerner

Part 5: HNA

CERNER
From Vision to Value

Jeffrey L. Rodengen

FOREWORD BY
John Danforth
RETIRED UNITED STATES SENATOR AND
FORMER UNITED STATES AMBASSADOR
TO THE UNITED NATIONS
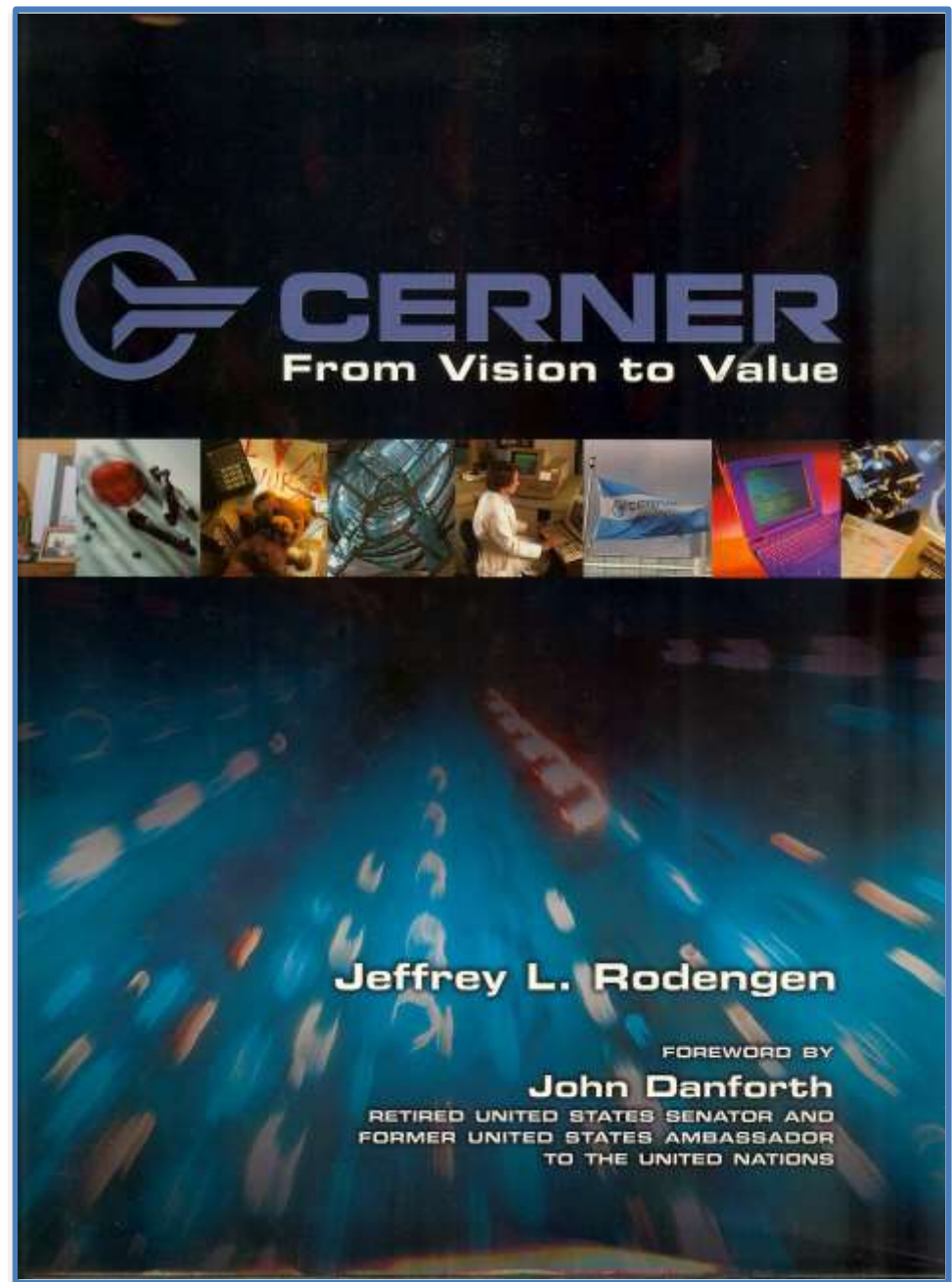
Wonderful Book

- I must give credit for much of the story of **Cerner** so far to an amazing book (front cover on the first slide, back cover here) commissioned by Neal & Co. to be written by Jeffrey Rodengren circa 2006.

- Thanks again to April Martin at **Cerner** who steered me to this copy I found on eBay for an obscene price, but it's the only case in HIS-tory where a vendors' founders cared enough about their legacy to have it professionally documented – kudos!
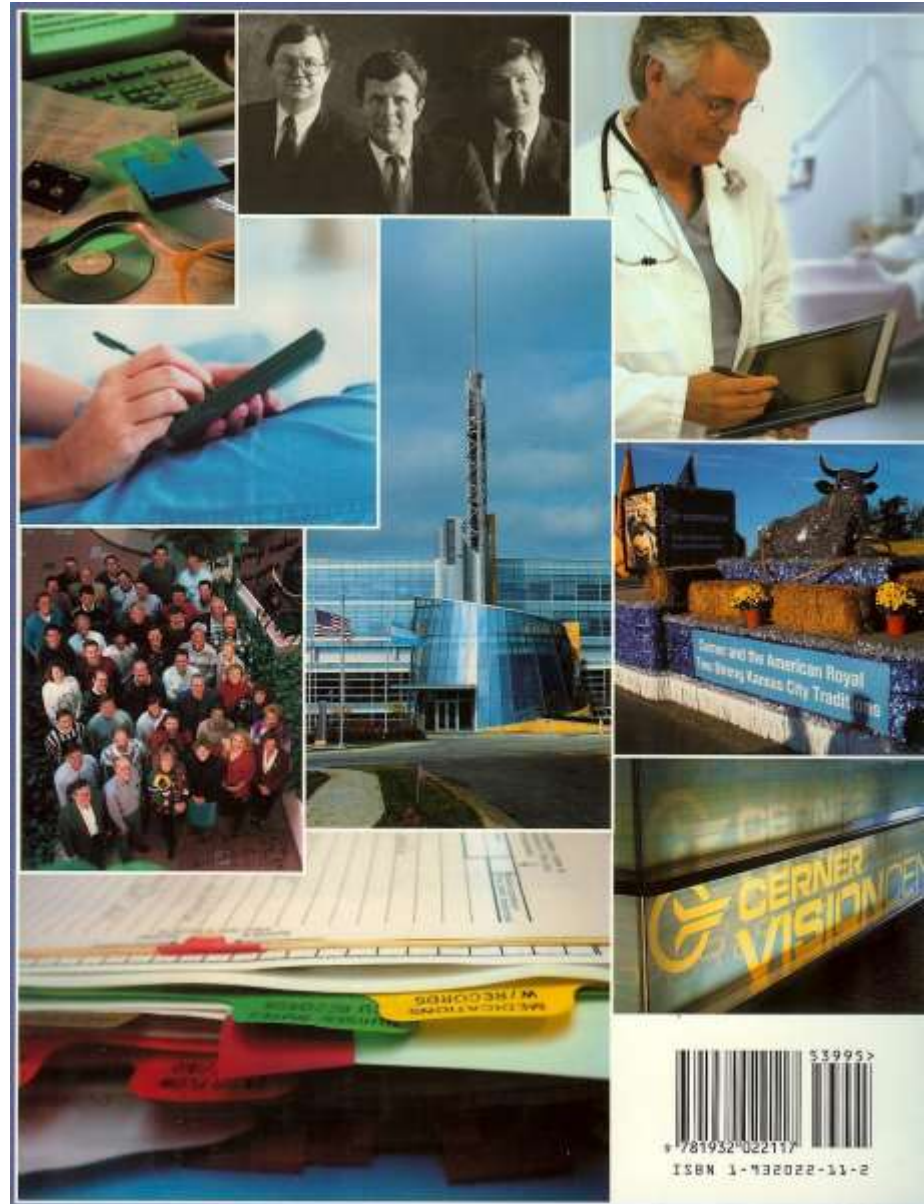
"TableRock" Project in 1994

The idea for *Cerner* was born when Patterson, Illig, and Gorup began meeting on Sunday mornings around a picnic table at Kansas City's Loose Park.

- And just what's a "TableRock?" The codename comes from a series of "table" meetings that Neal Patterson chronicled in an internal memo wherein he, Cliff and Paul made a series of big decisions that guided Cerner beyond LIS and into the HIS industry.

- It started out as a "client/server" version of the Health Network Architecture (HNA) that Cerner originally used to build its LIS out into all of the various lab modules beyond the LIS core: AP, Micro, etc.

- Cerner's original hardware platform was Dec VAX minis, which were the leading mini platform for LIS systems, as shown in this table from Dorenfest's 1988 Guide.
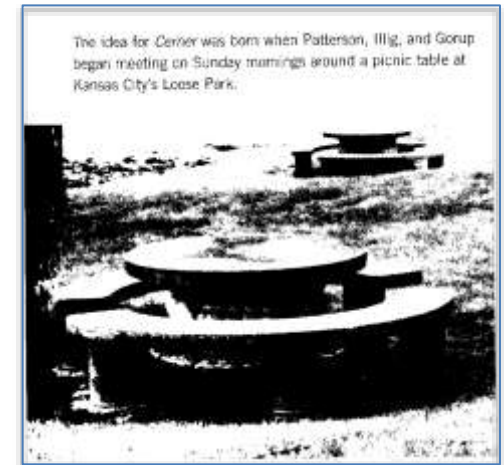
Hardware Vendor	Total Appearances	
	Number	% of Total
DEC	410	28.0%
IBM	261	17.9%
Data General	237	16.2%
CDC	127	8.7%
NCR	51	3.5%
Modcomp	49	3.4%
Prime	40	2.7%
Stratus	32	2.2%
Four Phase	30	2.1%
Saint	29	2.0%
Televideo	29	2.0%
Hewlett Packard	17	1.2%
Tandem	15	1.0%
TI	16	1.0%
Unisys/Sperry	11	.8%
Suppliers With Less Than 10 Appearances	107	7.3%
TOTAL	1,461	100.0%

Bold Vision

- In what must have seemed a daring vision back in the mid-90s, Neal & Co. announced their "TableRock" project at **Cerner's** 1994 users' conference, that would entail many advanced capabilities:

  - Support "*community*-based" delivery models (early IDNs)

  - *International* requirements (PathNet ran in Canada since '85)

  - Leverage *desktop* computing (PCs were just hitting their stride)

- The application side of this new TableRock vision, which was later renamed HNA V500, included the same series of applications and modules that enabled **HBO** and **Meditech** to grow their HIS:

  - Nursing Doc, Orders Entry & Results Reporting

  - Census, ADT, MPI & OP Registration/scheduling

  - Pharmacy, Radiology & other niche ancillaries

- As shown on the right, HNA sold well, eclipsing lab revenue for **Cerner** by the end of the decade:

Laboratory as % of Revenue Mix — Laboratory — 1990 92%

Laboratory as % of Revenue Mix — Laboratory — 1998 12%
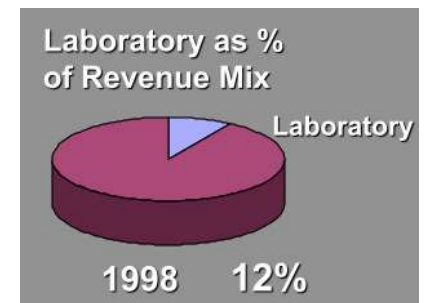
Amazing Growth
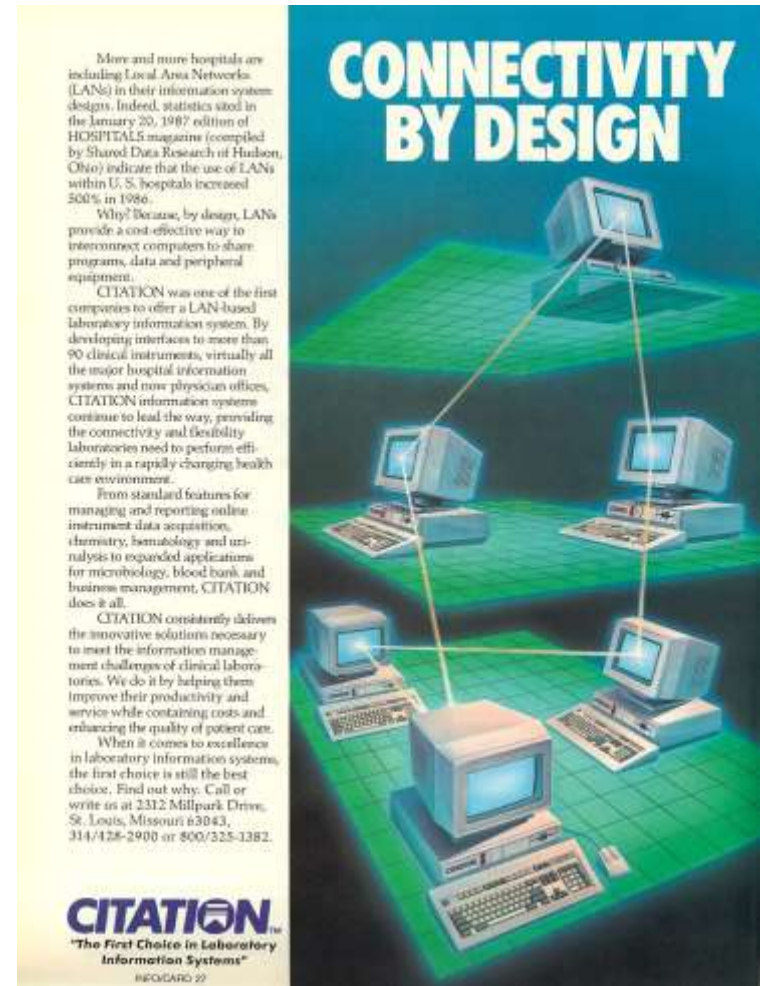
- The time-line below shows the evolution of **Cerner's** product line from its LIS beginnings in 1979 to today's HIS, all self-developed. Only **Meditech**, **CPSI** & **Epic** also built, rather than bought an HIS.

HIS-tory of Cerner's Major Product Lines

	1984	1988	1989	1990	1992	1996	1997	1999	2001	2002	2003	2004	2005	2013

A N C I L L A R Y
- Laboratory (PathNet)
- Radiology (RadNet)
- Pharmacy (PharmNet)
- Perioperative (SurgiNet)
- Critical Care
- EDIS
- Cardiology
- PACS
- Oncology
- Pediatrics

E M R
- Clinician Order Entry
- Electronic Medical Record
- Nursing
- EMPI, Scheduling
- Bedside

O P
- Practice Management
- Home Care
- Behavioral Health

R E V
- Patient Accounting (ProFit)
- HIM
- Cost Accounting

I T
- Remote Hosting
- Disaster Recovery

Acquisitions

- Even though the bulk of its Millennium HNA product line was self-developed, with its enormous revenue growth and successful public offering, Cerner used the capital to acquire other vendors:

- **Citation** – in May of 2000 was a potential game-changer as **Citation** ruled the *small* hospital LIS market with over 300 sites on its C-LAB product, just like PathNet did in the *large* LIS market. Founded in 1979, **Citation** rode the micro revolution with its PC-based system selling well both in the US and overseas: Canada, Latin America & Asia. In the event, the revenue potential was too small, and Cerner instead offered remote hosting over C-LAB's PCs on a Novell LAN.

CONNECTIVITY BY DESIGN

More and more hospitals are including Local Area Networks (LANs) in their information system designs. Indeed, statistics sited in the January 20, 1987 edition of HOSPITALS magazine (compiled by Shared Data Research of Hudson, Ohio) indicate that the use of LANs within U.S. hospitals increased 500% in 1986.

Why? Because, by design, LANs provide a cost-effective way to interconnect computers to share programs, data and peripheral equipment.

CITATION was one of the first companies to offer a LAN-based laboratory information system. By developing interfaces to more than 90 clinical instruments, virtually all the major hospital information systems and now physician offices, CITATION information systems continue to lead the way, providing the connectivity and flexibility laboratories need to perform efficiently in a rapidly changing health care environment.

From standard features for managing and reporting online instrument data acquisition, chemistry, hematology and urinalysis to expanded applications for microbiology, blood bank and business management, CITATION does it all.

CITATION consistently delivers the innovative solutions necessary to meet the information management challenges of clinical laboratories. We do it by helping them improve their productivity and service while containing costs and enhancing the quality of patient care.

When it comes to excellence in laboratory information systems, the first choice is still the best choice. Find out why. Call or write us at 2312 Millpark Drive, St. Louis, Missouri 63043, 314/426-2900 or 800/325-1382.

CITATION
"The First Choice in Laboratory Information Systems"
INFOCARD 27

Mini and Mega Deals

- Other acquisitions & deals Cerner made over the years include:
  - **Megasource** - In November, 1993 Cerner acquired this Pharmacy niche player from Michigan for $6.7 million. Like Citation, Megasource was big in the small hospital market with its IBM PC-based "MS-Meds" product, interfaced to "foreign" HIS systems via their "MS-Link" interface engine (IE). Cerner then created an "Integration Products Group" to market this IE as part of their Open Clinical Foundation (OCF) family.

  - **Cerner Alliance Program** – back in 1994 while they were still primarily *clinical* systems, **Cerner** struck a deal with **SDK** in Boston (later acquired by Eclipsys), **Medic** from NC and **Amisys** in MD to add administrative and financial systems to its suite.

  - **Clairvia** in 2011, a purveyor of workforce management and cloud-based predictive algorithms, with over 400 clients.

Other Deals

- **ADAC** – acquired in November of 2000 expanded Cerner's Radiology offering, adding the imaging system QuadRIS to RadNet
- **DHT** – in December, 2001, Cerner acquired Dynamic Healthcare Technologies from Lake Mary, FL. **DHT** was best known for its "CoPath" Anatomic Pathology system, and also offered the "RadPlus" RIS and "Premier System LIS," running in over 600 sites.
- **Zynx** Health Inc. – a subsidiary of Cedars-Sinai Medical Center was acquired in May, 2002, for its knowledge and best practice solutions that were considered the industry standard. For a while: **Cerner** divested itself of Zynx in 2004…
- **VitalWorks** – in January, 2005, Cerner acquired this physician practice vendor, bringing 30,000 private physician clients along.
- **Axya** – *what*, you never heard of them? Have you been asleep?? Acquired in May 2005, **Axya** was a Paris-based specialist in hospital systems throughout France, Switzerland and Morocco.

Some Slip-Ups…

- No one is perfect, and **Cerner** had a few downs with its many ups:

  - <u>Re-name?</u> – While Millennium's name was evolving from TableRock to V500, someone came up with the name "D3," to reflect the directory layouts they were working with. It didn't take long for some field people to point out to the marketers back in KC that that term stood for *decubitus*, aka bedsores…

  - <u>Profit</u>? – In 1996 Cerner finally ended its "alliance" program with SDK & Co., and released its own patient accounting system called "**ProFit**," a creative name but a not-so-hot product. In this IT industry, what vendor does *not* have a dog (or two) in their portfolio? The name has since been changed to "Revenue Cycle Solutions" – much better, huh?

A Minor Gap?

- About the only application area where **Cerner** did *not* write a system is in ERP ("General Financials" for we oldsters…). Is this a drawback? Let's have some fun and test your knowledge of the industry: which of today's 13 leading vendors (listed by order of their 2012 annual revenue) offers an *integrated* ERP suite, i.e., written by them, rather than interfaced with a partner vendor:

  _____ McKesson

  _____ Cerner

  _____ Siemens

  _____ Epic

  _____ Allscripts

  _____ GE

  _____ Meditech

  _____ NextGen

  _____ CPSI

  _____ HMS

  _____ NTT (Keane)

  _____ Harris (QuadraMed)

  _____ Healthland

Next Week

- Stay tuned for the answer to the ERP question next week, as well as the final episode on **Cerner** covering their C-Suite evolution and amazing climb in terms of annual revenue, # of employees ("associates" in KC parlance), international expansion, clients, etc.

- After **Cerner**, we'll wrap-up the HIS-tory of *today's* vendors with the #1 on everyone' annual revenue chart: **Mc_Kesson**, who's $3B+ started way back in 1974 when three HIS-tory heroes left McAuto to form **HBO**:

  - Walter **H**uff, Bruce **B**arrington, and Richard **O**wens

- If anyone knows their email address or phone #, please call or write me at: <u>vciotti@hispros.com</u>, 505/466-4958
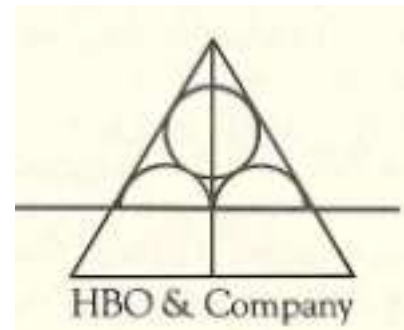
H.I.S.-tory,

by Vince Ciotti

Episode #109:

Cerner

Part 6

Neal & Cliff - 1987

Neal & Cliff - 2007

ERP "Gap" Quiz

- So how did you do in last week's quiz on what other leading HIS vendors besides **Cerner** did *not* write their own ERP system, about the only gap in **Cerner's** long line of HIS applications?

  - We mean *really* integrated systems (written in the same programming language, data base & OS, and running on the same hardware platform), that have been self-developed inhouse (not acquired, or a "partner" vendor's system).

- It's a bit of a trick question as the answer varies greatly by *product*, with half of today's vendors offering multiple HIS-es.

- So the next time someone tells you they're on **McKesson**, **Siemens, Meditech**, etc., be sure to ask them exactly *which* of their many products they're on – it's like owning a "GM" car – is it a Chevy, a Corvette, or a Cadillac? Quelle différence!

Today's Leading Vendor ERP Status

VENDOR	PRODUCTS *WITH* ERP	PRODUCTS *WITHOUT* ERP
McKesson	Star, Series, Paragon	Horizon
Cerner		Millennium
Siemens	MedSeries 4	Unity, Invision, Eagle, Soarian
Epic		EpicCare
Allscripts		Sunrise
GE		Centricity
Meditech	Magic, C/S, Release 6	
NextGen	Sphere	
CPSI	CPSI System	
HMS	General Financials	
NTT (Keane)	Optimum	
Harris (QM)		Affinity
Healthland	Classic, APS	Centriq (EHR only)

C-Suite Longevity

- Getting back to **Cerner**, <u>Neal Paterson</u> has been at their helm for an amazingly long time, serving as the CEO and Chairman their entire 34 year history. Only a few other HIS vendors can claim such consistency at the top:
  - <u>Neal Pappalardo</u> has been **Meditech's** Chairman for 44 years!
  - <u>Judy Faulkner</u> has led **Epic** for its entire 34 year history.
  - <u>Jim Macaleer</u> was **SMS**' Chairman for 30 years (pre Siemens)
  - <u>Rich Tarrant</u> led **IDS/IDX** for 30 years (1974 to 2004, pre GE)
- So who *else* served as **Cerner's** President under Neal? Interesting question: remember the LIS search in Episode 107 (you can find them all at *hispros.com*) that documented how **Cerner** rose to the top of the LIS market so rapidly in the early nineties? We put vendors through a pretty rigorous selection process that really puts sales reps through their paces. Who was **Cerner's** rep at the Wyoming Valley Health Care System selection in back 1993?

Promoting From Within

- Actually, we were assigned a brand new rep right in the middle of the process, who was a recent hire to **Cerner**, having just joined their Washington, DC office. We were a little concerned at how well a rookie rep could coordinate all the demands we made on KC regarding client lists, user manuals, site visits, and our "strenuous" contract negotiations...

- As you saw in that selection process, this new guy performed *superbly*, beating out **Sunquest**, **ALS** and **SMS** in the process.

- His name? <u>Trace Devanny</u> – and he rose rapidly through the ranks at **Cerner** after 1993, being promoted to President in 1999! Trace had 17 years experience with **IBM** in the mid-Atlantic region, so knew the sales game well. He also served as CEO and COO at **ADAC**, so he knew the C-Suite game too. He led **Cerner** for 10 years until leaving in 2010 to head up **The TriZetto Group**

Another Inside Promotion

- And recently (9/4/2013), came news about **Cerner**'s 3rd President:

TECHNOLOGY

Health care software maker Cerner names Zane Burke its president

September 4

BY DIANE STAFFORD
The Kansas City Star

Zane Burke on Wednesday was named president of Cerner Corp., the health care software company that is the largest private employer in the Kansas City area.

Burke, 47, assumes the title from company co-founder Neal Patterson, 63, who retains the titles of chairman and chief executive officer.

Patterson had absorbed the president's post after Trace Devanny left the position in 2010.

"There are very few people who understand the extensive role information technology is playing in health care worldwide as well as Zane," Patterson said in a prepared statement announcing the appointment.

A company spokesman said that Burke's promotion did not represent a formal succession plan announcement for the company and that Patterson's CEO role was not affected.

Growth Charts

- Zane is facing an enormous challenge to keep Cerner growing at its amazing pace, as illustrated in the following two charts:
  - First, **Cerner's** annual revenue over the past 34 years:

Cerner Annual Revenue ($s in Millions)
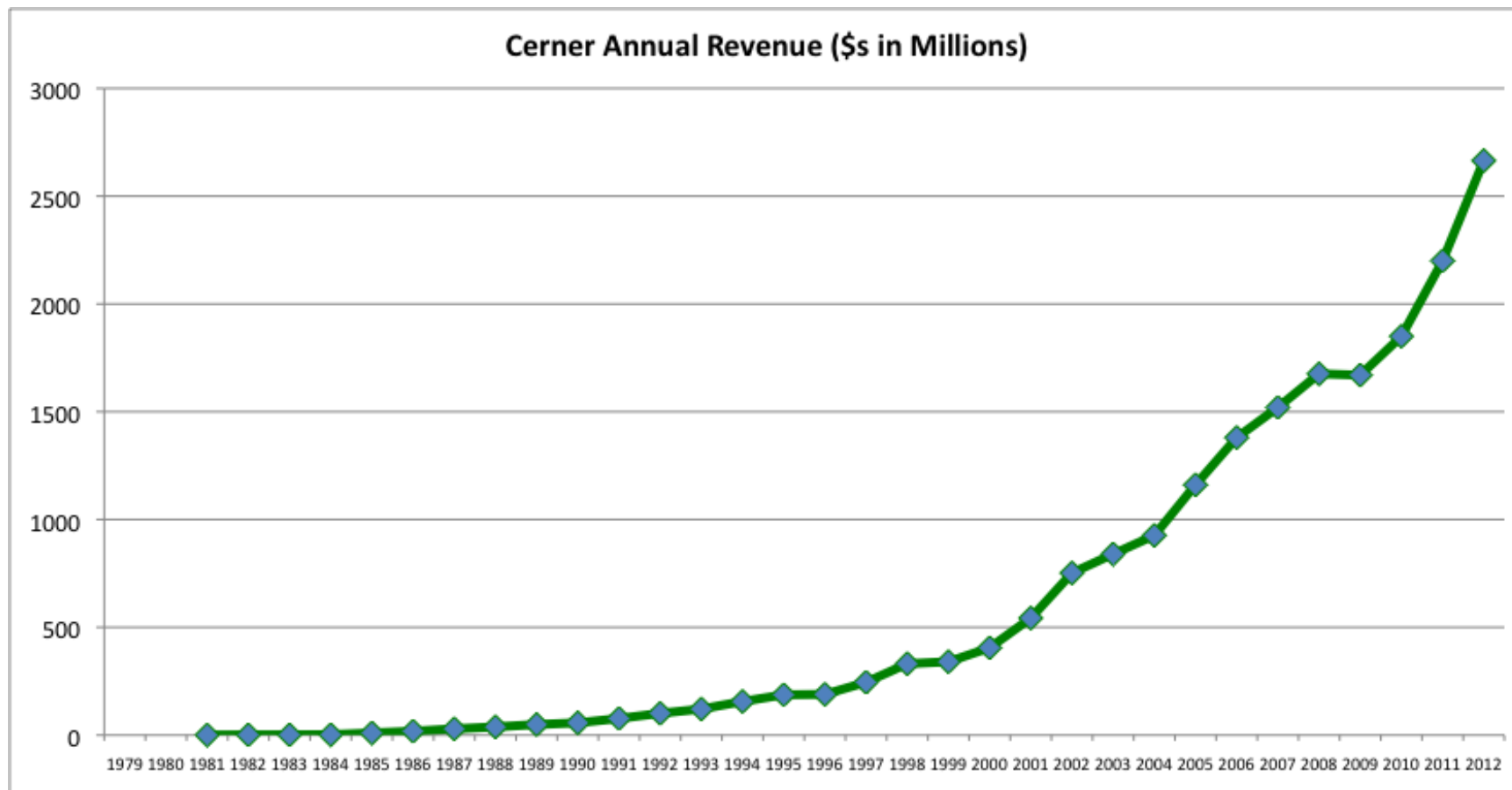
"Associates"

- Reflecting **Cerner's** team-building philosophy, employees are referred to as "Associates" in KC, and their growth has been amazing, from the 3 founders in 1979, to over 12,000 today:

Number of Associates
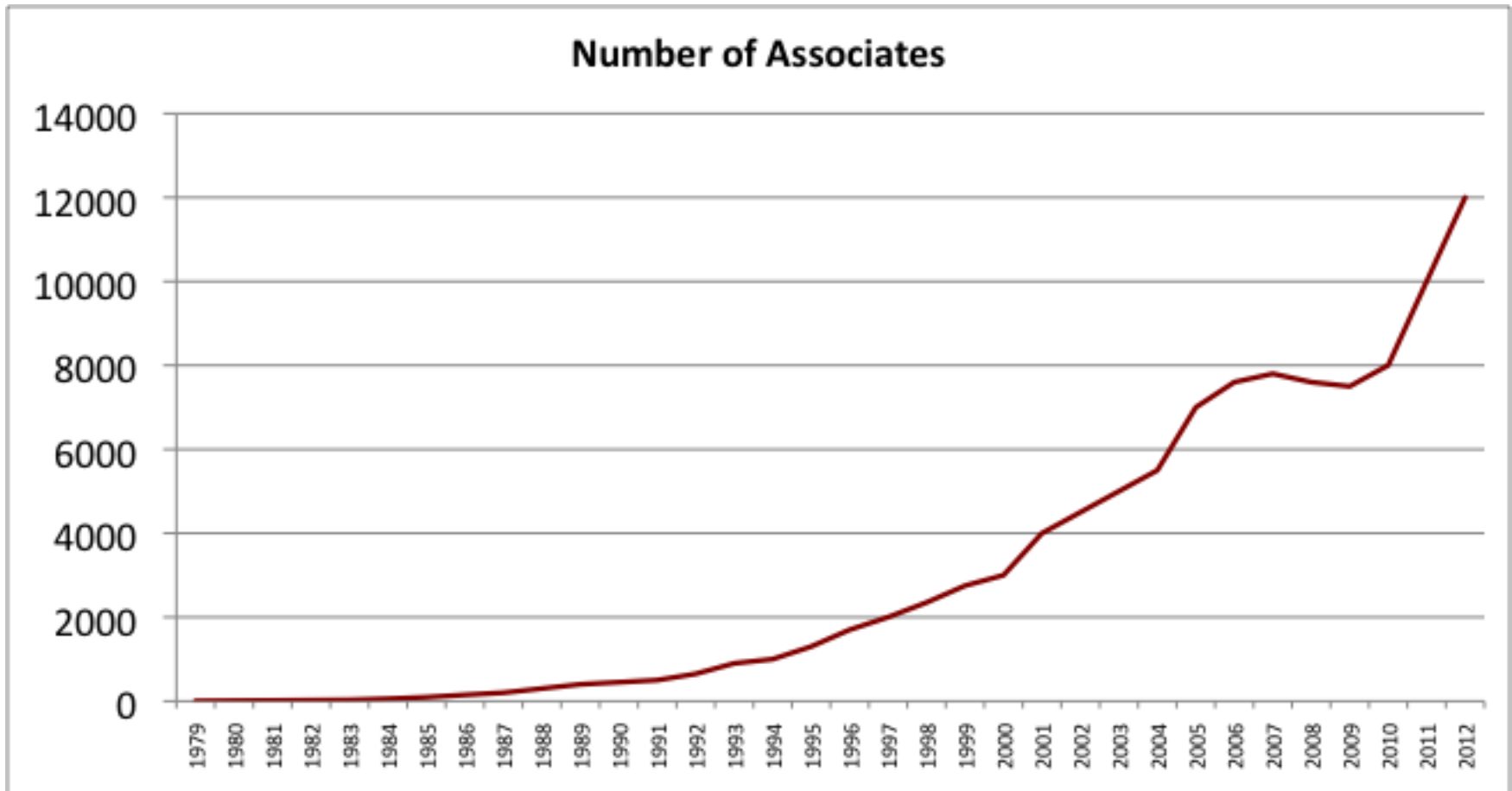
Next Episode

- Many thanks again to the folks at **Cerner** for help with this story, including Neal, who was kind enough to introduce me to:

  – *Vince .. I bet we can come with some old stuff .. April Martin is brilliant and will help u .. my travel is taking me afar .. connect in a couple of weeks .. good luck.*

- The HIS-tory of *today's* vendors concludes with the #1 vendor on everyone's annual revenue charts **McKesson**, who started way back in the 70s when another founding trio left McAuto to form **HBO**:

  - Walter **H**uff, Bruce **B**arrington, and Rich **O**wens

- If anyone knows their contact info, or that of any other old HBO(C) veterans, please put them in touch with me at: vciotti@hispros.com, 505/466-4958 - they'll get due credit (or blame!)

HBO & Company

H.I.S.-tory,

by Vince Ciotti

Episode #110:

Vendor C-Suites
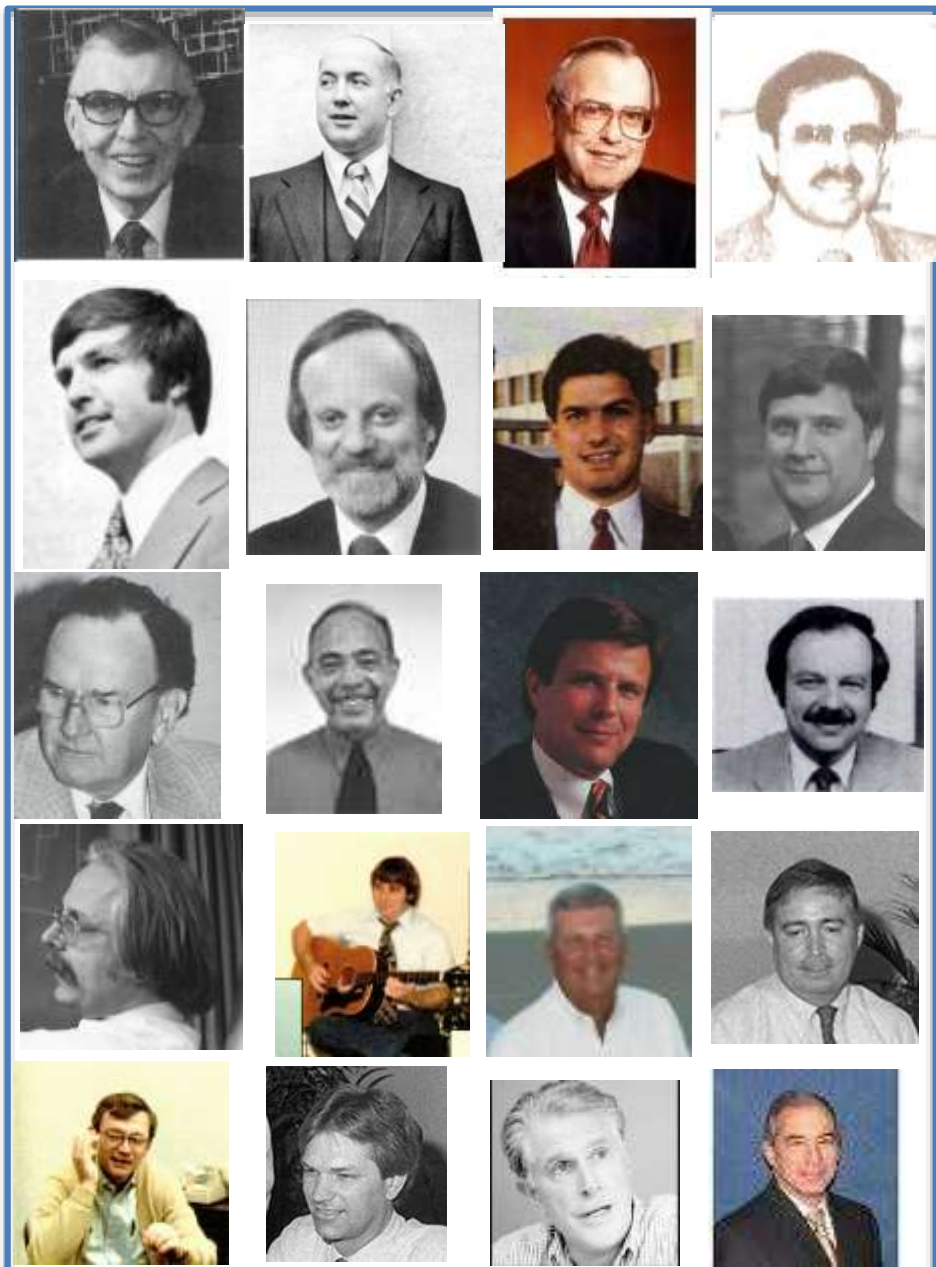
Recognize Any Of These Faces?

Errata

- Last week's episode had two gaffs pointed out by HIS-talk readers that I need to correct – one concerning the ERP quiz and the second leading to this whole episode on today's vendor C-Suites.

- First, a reader of my ERP quiz corrected a gaff on **Healthland**:

  - *"I just wanted to correct an error from Vince's ERP quiz in this week's HIStory. Healthland Centriq is listed as "EHR only" – i.e., not having an ERP. Centriq does in fact have not only an ERP suite, but full revenue cycle management – all written in the same language (.NET), on the same integrated database (Microsoft SQL), that runs on the same hardware, all developed to be one integrated system. It even has an integrated, self developed Time & Attendance application."*

- I stand corrected – I must admit, I have been confused with the evolution of **AHN's** "Claris" products into **Healthland's** new "Centriq" product line, so the following page has it fixed:

Today's Leading Vendor ERP Status

VENDOR	PRODUCTS *WITH* ERP	PRODUCTS *WITHOUT* ERP
McKesson	Star, Series, Paragon	Horizon
Cerner		Millennium
Siemens	MedSeries 4	Unity, Invision, Eagle, Soarian
Epic		EpicCare
Allscripts		Sunrise
GE		Centricity
Meditech	Magic, C/S, Release 6	
NextGen	Sphere	
CPSI	CPSI System	
HMS	General Financials	
NTT (Keane)	Optimum	
Harris (QM)		Affinity
Healthland	Centriq, Classic, APS	

Errata, cont'd

- Next, <u>April Martin</u> from Cerner, who has been very helpful on that whole 6-part series, corrects my slide on Cerner's newest pres:

  - *"Hi Vince, Do you mind making a couple of corrections to the last installment? Trace Devanny was President, never CEO. Zane Burke is also President (your piece indicates he was just promoted to CEO). There has only been one CEO of Cerner since its founding – Neal. ;-) I've enjoyed the HIS-stories. Fun stuff. Stay in touch. Thanks! April*

  - *PS: Also, Zane wasn't **recruited** to be President; he was promoted. He's been here at Cerner since 1996. Neal has been CEO & Chairman continuously from 1979 to today."*

- This amazing longevity of <u>Neal Patterson</u> started me thinking: what other HIS vendors have had such similar longevity at the top as Neal's 34 years? So blame April for this complicated episode…

Today's Leading HIS Vendors

- So like the ERP quiz, can you think of *who* founded and led each of today's 13 leading HIS vendors, listed below by annual revenue:

HIS-tory Timeline of Today's Leading Vendors

© 2013 by H.I.S. Professionals, LLC, all rights reserved.
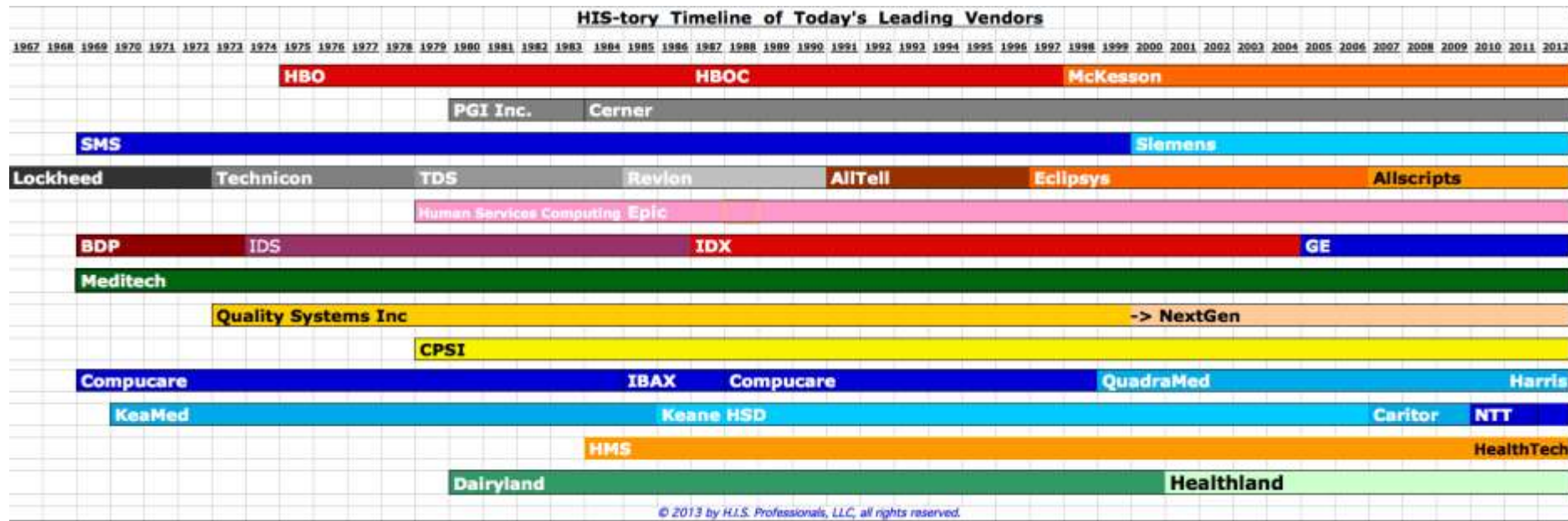
- And in case you can't read the fine print, the next slide lists them in a larger font, along with the names of their founders, that might help your memory cells start to fire. And if you really want a headache, try to think of *all* of their C-Suite-ers over the years?

Today's Leading HIS Vendors

- Here's the complete list of today's leading HIS vendors, listed in order of their annual revenue, along with their founders' names:

1. $3.2B = **McKesson**, née HBO(C) = Walt Huff, Bruce Barrington, & Rich Owens
2. $2.6B = **Cerner**, *still* run by Neal Patterson, co-founded by Cliff Illig & Paul Gorup
3. $1.8B (est) = **Siemens**, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde
4. $1.5B = **Epic**. Gee, I have to wonder, just *who* was it who founded them?
5. $1.4B = **Allscripts**, née Eclipsys, also founded by Harvey Wilson of SMS fame
6. $850M (est) - **GE** Healthcare, née IDX/PHAMIS: created by Malcolm Gleser
7. $597M = **Meditech**, *still* run after all these years by Antonino Papallardo
8. $375M = **NextGen**: née Quality Systems Inc. founded by Sheldon Razin
9. $183M = **CPSI**, founded by M. Kenny Muscat & Denny P. Wilkins
10. $156M = **HMS** (Healthcare Management Systems), Tom Givens & John Doss
11. $150M = **Keane**, parent giant by John Keane, and HIS division by Ray Paris
12. $106M = **QuadraMed**, née Compucare, founded by Sheldon Dorenfest
13. $75M (est) = **Healthland**, formerly Dairyland, founded by Steve Klick

Complicated Question…

- As April pointed out in her email, it's a bit of a trick question too, as there are so many titles at the top of some of these giant corporations, especially those whose parent companies have annual revenue in the tens of *billions*, like **McKesson**, **GE**, etc.

- So we'll just stick just to the HIS Division of each, which alone can have a plethora of titles in large companies, including:
  - Chair*man* (person?) of the Board
  - Chief Executive Officer
  - President, Senior Vice-President
  - Executive Vice-President
  - COO, CFO, CTO, CIO, etc.

- So try to list the top *two* for each:
  - The boss at the top, which is usually the Chair of the Board
  - Their #2, whether titled CEO, President, EVP, etc. Got it??

FRANK SINATRA

CHAIRMAN OF THE BOARD
1915 - 1998
"I DID IT MY WAY"…
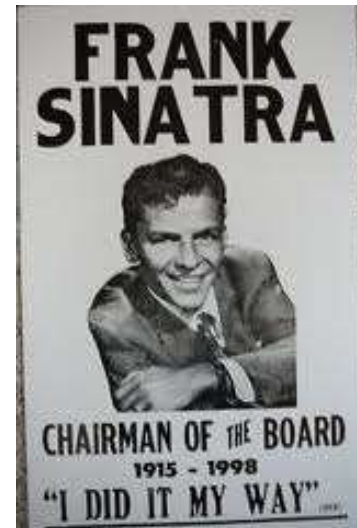
Muchas Gracias!

- First, I must thank a number of old friends and HIS-tory heroes themselves who were kind enough to help out my aging memory cells, which get pretty tasked to remember the date some days…

  – <u>Frank Poggio</u> – who formed HMDS, did a bunch of consulting for HIS vendors over his 40 years in the biz, and lately helps them with Meaningful Use certification (847/382-1388)

  – <u>Frank Pecaitis</u> – who was VP of sales for several leading HIS vendors including QuadraMed & MedShpere, and who now head up sales for PatientSafe Solutions (858/746-3118)

  – <u>Sheldon Dorenfest</u> – *the* HIS guru of all time, who took time off during his travels to China to fill me in on many HIS vendor founders & presidents he knew *personally* (312/464-3000)

  – <u>Bill Childs</u> – the founder of all HIS media, starting with his Computers in Healthcare rag, the source of so many of the stories, ads and photos in my HIS-tory: *billchilds@gmail.com*

Ta-Da!

- And here it is, the best we can come up with so far – please email me with any additions/corrections and I'll send you the Excel file: *vciotti@hispros.com*

Leading HIS Vendors' C-Suite Time-Line

	1969	1976	1980	1985	1990	1995	2000	2010	2013
	HBO				**HBOC**		**McKesson**		
Chairman:	Walter Huff			Holcomb Green	Walter Huff		John Hamergren		
President:		John Lawless		Larry Gerdes	Darrell Young	Charlie McCall	Graham King	Pam Pure	Patrick Blake
			PGI	**Cerner**					
Chairman/CEO:			Neal Patterson						Zane Burke
President:							Trace Devanney		
	SMS						**Siemens**		
Chairman:	Jim Macaleer						n/a		
Pres./EVP:			Harvey Wilson	Mark Levitan	Graham King	Marv Cadwell	Frank Lavelle	Janet Dilione	John Glaser
			HSC	**Epic**					
Chairperson:			Judy Faulkner						
EVP/President:							Karl Dvorak		
	Lockheed MIS	**Technicon MIS** **Revlon**	**TDS**		**AllTell**	**Eclipsys**			**Allscripts**
President:	???	Mel Hodges, Ian Hicks, John Whitehead		Willy Seabrooke		Harvey Wilson	Paul Ruffin Phil Pead	Glan Tullman	Paul Black
	BDP	**IDS**		**IDX**				**GE**	
President:	Hoel & Tarrant	Richard Tarrant				Jim Crook		Vischal Wanchoo, Jan DeWitt	
	Meditech								
Chairman:	Neal Pappalardo								
CEO/Pres:			Larry Palomino				Howard Messing		
		Quality Systems Inc					**NextGen**		
President:		Sheldon Razin						Steve Plochocki	
		CPSI							
Founders/President:		Kenny Muscat & Denny Wilkins				David Dye	Boyd Douglas		
		HMS							
Founders/President:		John Doss & Tom Givens					Tom Stevenson		
	KeaMed		**Keane HSD**					**Caritor**	**NTT**
President:	Ray Paris						Walt Kaczor		
	Compucare		**IBAX**	**Compucare**			**QuadraMed**		**Harris**
President:	Shedlon Dorenfest	Ron Apprahamian	Frank Russo	Ron Apprahamian			Larry English	Keith Hagan Jim Duncan	
		Dairyland					**Healthland**		
President:		Steve Klick					Jim Burgess	Angie Franks	

Larger Print

- And in case your eyes are getting as bad as mine, here's the four quadrants; first, the large vendors from 1960s through 1990:

Leading HIS Vendors' C-Suite Time-Line

	1969	1976	1980	1985	1990

HBO / **HBOC**
Chairman: Walter Huff Holcomb Green Walter Huff
President: John Lawless Larry Gerdes Darrell Young Charlie McCa...

PGI / **Cerner**
Chairman/CEO: Neal Patterson
President:

SMS
Chairman: Jim Macaleer
Pres./EVP: Harvey Wilson Mark Levitan Graham King

HSC / **Epic**
Chairperson: Judy Faulkner
EVP/President:

Lockheed MIS Technicon MIS Revlon TDS / **AllTell**
President: ??? Mel Hodges, Ian Hicks, John Whitehead Willy Seabrooke

BDP IDS / **IDX**
President: Hoel & Tarrant Richard Tarrant

Larger Print 2

- The upper right quadrant - large vendors from 1985 to today:

Vendors' C-Suite Time-Line

1985	1990	1995	2000	2010	2013

HBOC — Holcomb Green, Walter Huff, Gerdes, Darrell Young, Charlie McCall
McKesson — John Hamergren, Graham King, Pam Pure, Patrick Blake

Cerner — Trace Devanney, Zane Burke

Mark Levitan, Graham King, Marv Cadwell
Siemens — n/a, Frank Lavelle, Janet Dilione, John Glaser

Epic — Karl Dvorak

Willy Seabrooke, **AllTell**, **Eclipsys** — Harvey Wilson, Paul Ruffin, Phil Pead, **Allscripts** — Glan Tullman, Paul Black

IDX — Jim Crook, **GE** — Vischal Wanchoo, Jan DeWitt

Larger Print 3

- The lower left quadrant - smaller vendors from 1969 to 1990:

Leading HIS Vendors' C-Suite Time-Line

	1969	1976	1980	1985	1990

Meditech
Chairman: Neal Pappalardo
CEO/Pres: Larry Palomino

Quality Systems Inc
President: Sheldon Razin

CPSI
Founders/President: Kenny Muscat & Denny Wilkins

HMS
Founders/President: John Doss & Tom Givens

KeaMed / **Keane HSD**
President: Ray Paris

Compucare / **IBAX** / **Compucare**
President: Shedlon Dorenfest   Ron Apprahamian   Frank Russo   Ron Apprahamian

Dairyland
President: Steve Klick

Larger Print 4

- The lower right quadrant – small vendors from 1985 to today:

ors' C-Suite Time-Line

	1990	1995	2000	2010	2013

Howard Messing

NextGen
Steve Plochocki

ns | David Dye | Boyd Douglas

& Tom Givens | Tom Stevenson

Keane HSD | **Caritor** | **NTT**
Walt Kaczor

IBAX | **Compucare** | **QuadraMed** | **Harris**
Frank Russo | Ron Apprahamian | Larry English | Keith Hagan | Jim Duncan

Healthland
Jim Burgess | Angie Franks

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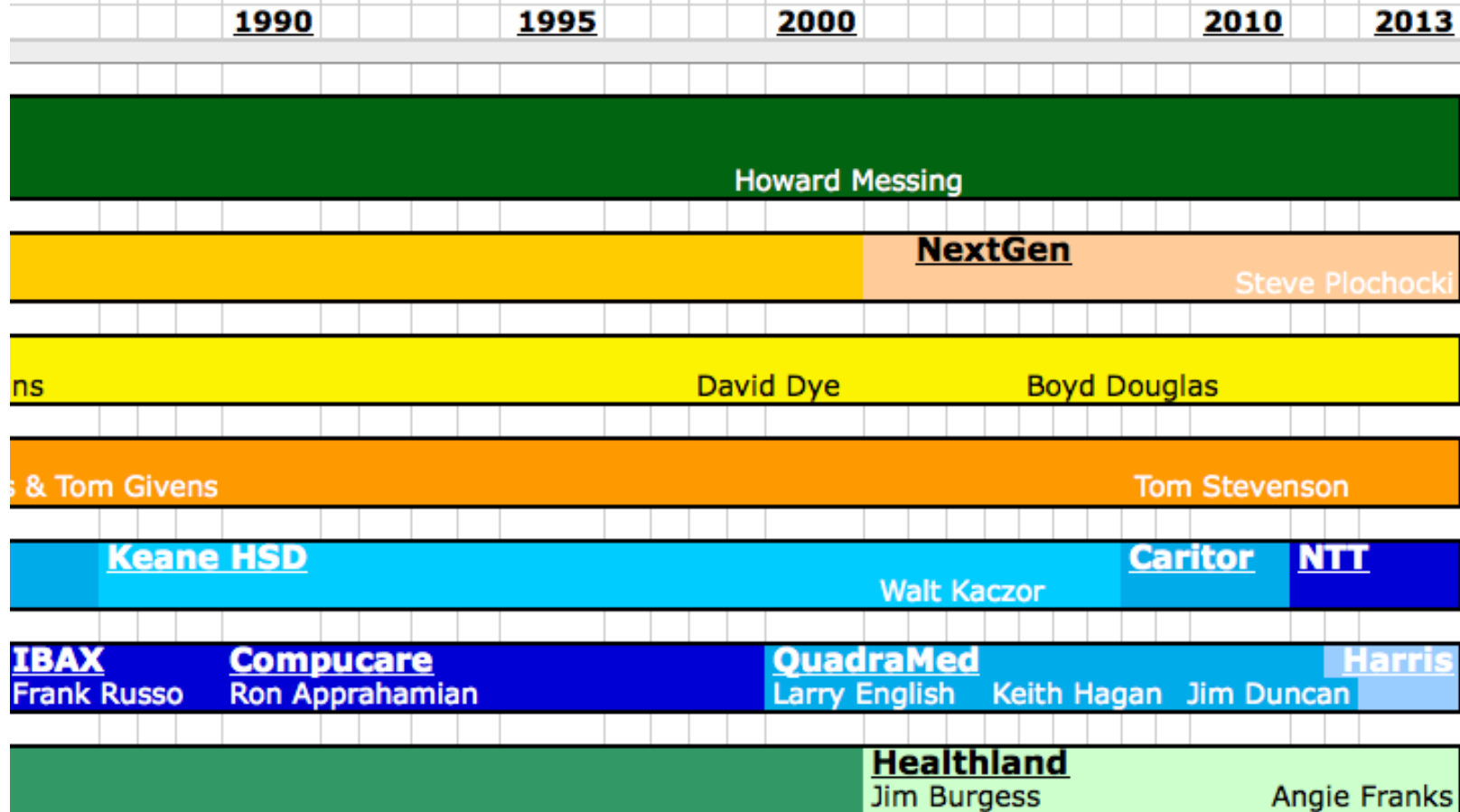
More Help, Please!

- I'm sure I made errors and there are still a few gaps, so please send me any names & titles you can remember, especially for:
  - **HBO** – I'm hoping to talk to Walt Huff and Larry Gerdes soon…
  - **Lockheed** – who was it who headed up their MIS project?
  - **SMS** – I fear I missed some and/or got the dates wrong!

- Next week, I hope to start the final series on today's vendors with the saga of **HBO** under Walt Huff. Thanks in advance to Jim Pesce, President of **McKesson's** Enterprise Information Solutions, who put me in touch with two of **McKesson's** veteran employees from the early **HBOC** days: Mark Sweeney and Dan Mowery.

- But hearing from any of the really old veterans of **HBO** (before the "C") in the '70s would be very much appreciated: call or write:
  - *vciotti@hispros.com*   - 505/466-4958

  Then I have someone to share the blame with for future errata!

H.I.S.-tory,
by Vince Ciotti

Episode #111:

C-Suite
Answers
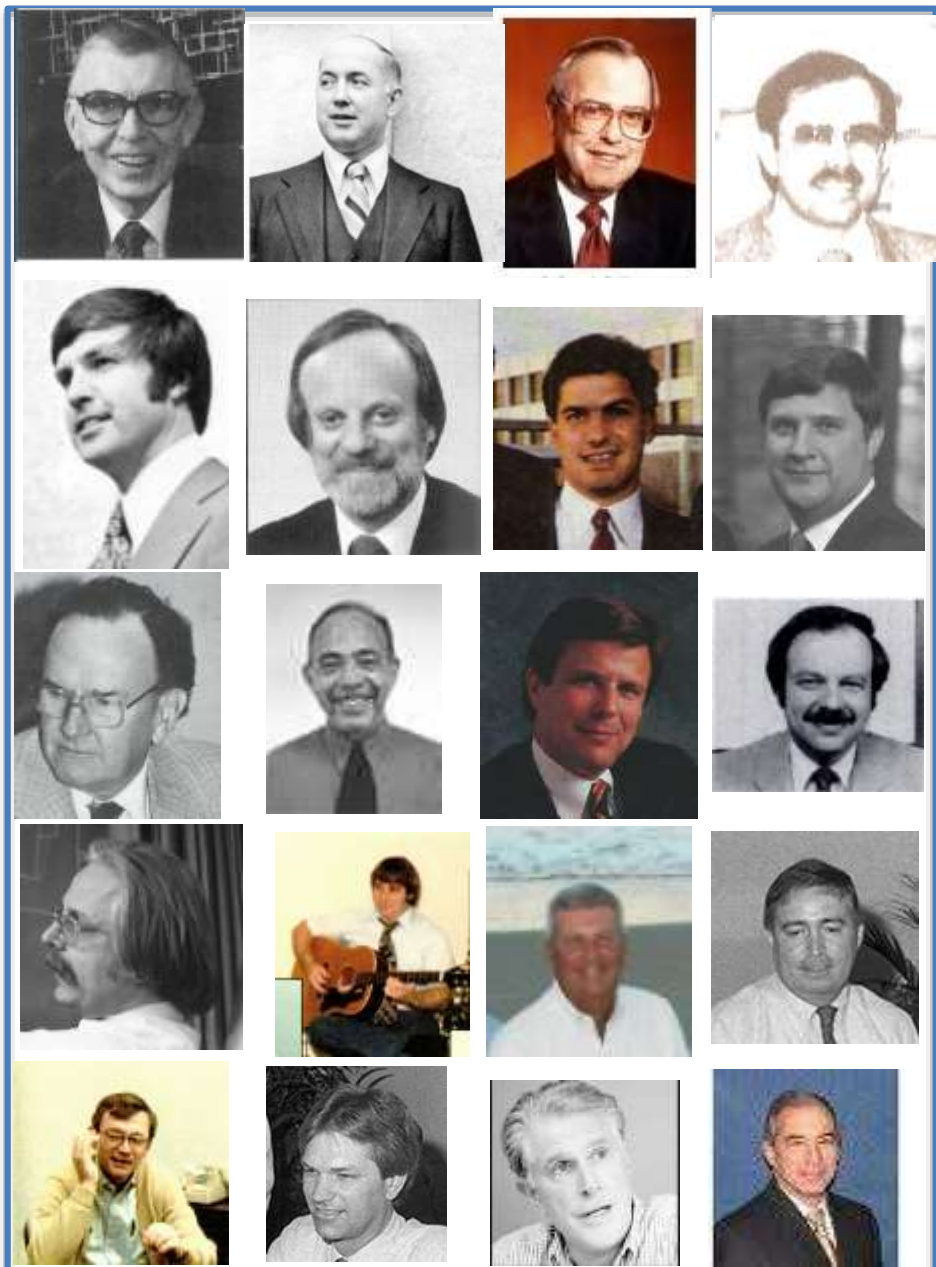
Did You Recognize These Faces?

Gaff(e)s

- For an English major, I screw up my spelling pretty regularly! Check out this email from Dave Wellons, VP of Sales, MDdatacor:

  - "Vince,

    In your 9/30 episode, you corrected a couple of mistakes. You called them "gaffs". I think you meant "gaffe." A gaff is either a hook and pole used to land fish, or a type of sail boat rigging. Sorry to poke a bit of fun, but the irony of making another gaffe when apologizing for your "gaff" was too good to pass up. Keep them coming - I look forward to each episode.

    David"

- I'll tell you an even better screw up: in the first of the beige "Application Manuals" I wrote at SMS back in the early '70s, on the *first* page, in my proof-reading I missed a typo on the word "hospitals" as "hoapirals!" At least the *content* was good…

Muchas Gracias!

- First, I must thank a number of old friends and HIS-tory heroes who were kind enough to help out my aging memory cells to get the answers to last week's quiz on vendor C-Suites:

    - <u>Frank Poggio</u> – who founded HMDS, did a bunch of consulting for HIS vendors over his 40 years in the biz, and lately helps them with Meaningful Use certification (847/382-1388)

    - <u>Frank Pecaitis</u> – who was VP of sales for several leading HIS vendors including QuadraMed & MedShpere, and who now head up sales for PatientSafe Solutions (858/746-3118)

    - <u>Sheldon Dorenfest</u> – *the* HIS guru of all time, who took time off during his travels to China to fill me in on many HIS vendor founders & presidents he knew *personally* (312/464-3000)

    - <u>Bill Childs</u> – the founder of all HIS media starting with his Computers in Healthcare rag in 1980, and now Senior Vice President with First Choice Professionals (949/218-4092)

From The Source…

- Bill was especially helpful with ID-ing the early executives over Lockheed's pioneering Medical Information System (MIS) project:

  – *"What was known as Technicon or the TDS system was conceived in 1967 and started in 1968 at Lockheed Missiles and Space Company in Sunnyvale, CA. Lockheed received a "Matching Grant" from the U.S. Government to develop systems in order to track and report on the new Medicare / Medicaid System which went into effect in 1968 at a cost of $3.2 Billion for the first year… The first CEO of the project was <u>Kenneth Larkin</u>, who was a Lockheed Vice President and his COO was <u>Mel Hodge</u>, who was Lockheed's youngest VP and a Fulbright Scholar at Northwestern University. He was truly a visionary and first proposed a Medical Information System that physicians would use in 1967. Leaders of the development were <u>Paul Williams</u> for applications, <u>Chuck Tapella</u>, for online-real-time systems and <u>Bill Childs</u> for Financial Information Systems.*

  – *Note: parts of the Medical and Financial Systems are still alive in several hospitals some 45 years after their first "Go Live" (Financials in 1969 and Medical in 1971) at El Camino Hospital in Mountain View, CA."*

Ta-Da!

- And here it is, from founders to current execs – please email me with any additions/corrections and I'll send you the Excel file: *vciotti@hispros.com*

Leading HIS Vendors' C-Suite Time-Line

Larger Print

- And in case your eyes are getting as bad as mine, here's the four quadrants of the big spreadsheet blown up to much larger fonts; first, the upper-left, the large vendors from 1960s through 1990:

Leading HIS Vendors' C-Suite Time-Line

	1969	1976	1980	1985	1990
	HBO				**HBOC**
Chairman:	Walter Huff			Holcomb Green	Walter Huff
President:		John Lawless		Larry Gerdes	Darrell Young Charlie McCa
			PGI	**Cerner**	
Chairman/CEO:			Neal Patterson		
President:					
	SMS				
Chairman:	Jim Macaleer				
Pres./EVP:			Harvey Wilson	Mark Levitan	Graham King
			HSC	**Epic**	
Chairperson:			Judy Faulkner		
EVP/President:					
	Lockheed MIS **Technicon MIS Revlon** **TDS**				**AllTell**
President:	Kenneth Larkin Mel Hodges, Ian Hicks, John Whitehead			Willy Seabrooke	

Larger Print 2

- The upper right quadrant - large vendors from 1985 to today:

Vendors' C-Suite Time-Line

| 1985 | 1990 | 1995 | 2000 | 2010 | 2013 |

HBOC
Holcomb Green   Walter Huff
Gerdes   Darrell Young   Charlie McCall

McKesson
John Hamergren
Graham King   Pam Pure   Patrick Blake

Cerner
Trace Devanney   Zane Burke

Mark Levitan   Graham King   Marv Cadwell

Siemens
n/a
Frank Lavelle   Janet Dilione   John Glaser

Epic
Karl Dvorak

Willy Seabrooke   **AllTell**   **Eclipsys**
Harvey Wilson   Paul Ruffin   Phil Pead   **Allscripts**
Glan Tullman   Paul Black

IDX
Jim Crook

GE
Vischal Wanchoo, Jan DeWitt

Larger Print 3

- The lower left quadrant - smaller vendors from 1969 to 1990:

Leading HIS Vendors' C-Suite Time-Line

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CEO/Pres: Larry Palomino

Quality Systems Inc
President: Sheldon Razin

CPSI
Founders/President: Kenny Muscat & Denny Wilkins

HMS
Founders/President: John Doss & Tom Givens

KeaMed — President: Ray Paris — **Keane HSD**

Compucare — President: Shedlon Dorenfest — Ron Apprahamian — **IBAX** Frank Russo — **Compucare** Ron Apprahamian

Dairyland
President: Steve Klick

Larger Print 4

- And the lower right quadrant – small vendors from 1985 to today:

Vendors' C-Suite Time-Line

| 1985 | 1990 | 1995 | 2000 | 2010 | 2013 |

Howard Messing

NextGen
Steve Plochocki

ny Wilkins — David Dye — Boyd Douglas

MS
hn Doss & Tom Givens — Tom Stevenson

Keane HSD — **Caritor** — **NTT**
Walt Kaczor — Mike Jones

IBAX — **Compucare** — **QuadraMed** — **Harris**
Frank Russo — Ron Apprahamian — Larry English — Keith Hagan — Jim Duncan

Healthland
Jim Burgess — Angie Franks

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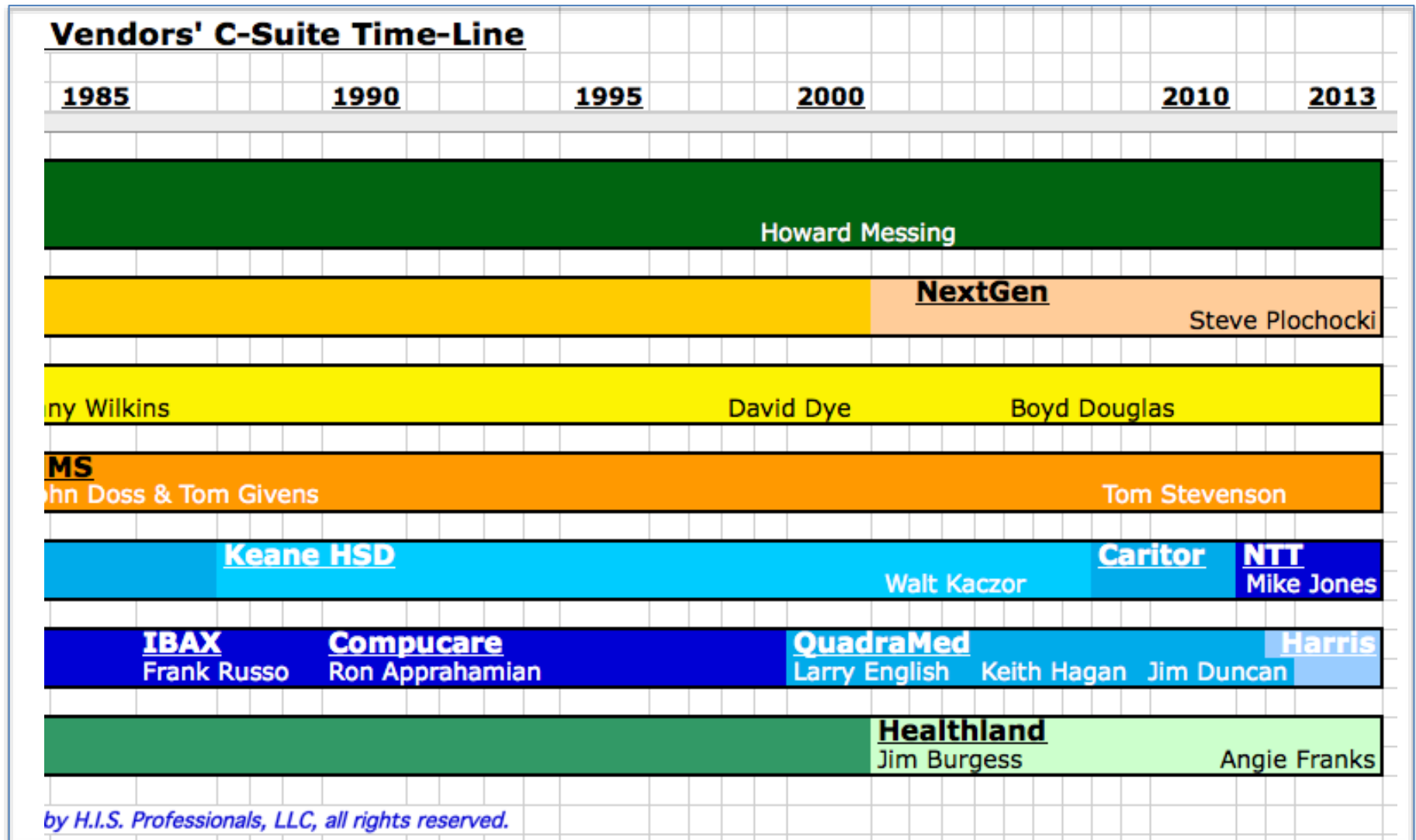
Today's HIS Vendor Founders

- Here's the list of today's leading HIS vendors, listed in order of their annual revenue, with the names of their original founders

1. $3.2B = **McKesson**, née HBOC = Walt Huff, Bruce Barrington, & Dick Owens
2. $2.6B = **Cerner**, *still* run by Neal Patterson, co-founded by Cliff Illig & Paul Gorup
3. $1.8B (est) = **Siemens**, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde
4. $1.5B = **Epic**, Judy Faulkner, the only female in the group, but what a lady!!
5. $1.4B = **Allscripts**, née Eclipsys, also founded by Harvey Wilson of SMS.
6. $850M (est) - **GE Healthcare**, née IDX/PHAMIS: created by Malcolm Gleser
7. $597M = **Meditech**, *still* run after all these years by Antonino Papallardo
8. $375M = **NextGen**: née Quality Systems Inc. founded by Sheldon Razin
9. $183M = **CPSI**, founded by M. Kenny Muscat & Denny P. Wilkins
10. $156M = **HMS** (Healthcare Management Systems), Tom Givens & John Doss
11. $150M = **Keane**, parent giant by John Keane, but HIS div. built by Ray Paris
12. $106M = **QuadraMed**, née Compucare, founded by Sheldon Dorenfest
13. $75M (est) = **Healthland**, formerly Dairyland, founded by Steve Klick

Visual Q & A

- Do OK on that *verbal* test? How about your ***visual*** IQ in naming these photos of these of HIS-tory heroes:

- The only picture I'm not 100% sure of is Malcolm Gleser's…

Name:	Chuck Barlow	R. J. Macaleer	Walt Huff	Steve Klick	Harvey Wilson
Vendor:	McAuto	SMS	HBO	Dairyland	SMS/Eclipsys
Name:	J. Whitehead	John Sacco	Terry Alley	Clyde Hyde	M. Gleser
Vendor:	TDS	JS Data	Gerber-Alley	SMS	PHAMIS
Name:	Neal Paterson	S. Dorenfest	N. Pappalardo	D. Wilkins	J. Faulkner
Vendor:	Cerner	Compucare	Meditech	CPSI	Epic
Name:	Tom Givens	K.Muscat	John Doss	Rich Tarrant	Ray Paris
Vendor:	HMS	CPSI	HMS	IDS(X)	Keane

Much Tougher Challenge…

- I must confess I am still stumped by many of these faces in <u>Bill Childs</u> challenge in an article of his from Computers in Healthcare magazine in the late '80s.

- I typed in the few I knew reasonably well, but would sure appreciate hearing from anyone out there who recognizes the rest to earn the $250!

Next Week

- Actually, it may be two weeks as I am reaching out to Larry Gerdes who helped Walt Huff get the original financing for HBO in '73, and was so impresssed by the prospectus, he later joined as their CFO!

- If any of you out there have early HBO stories you'd like to share, please call or write:
  - vciotti@hispros.com
  - 505/466-4958

A **Chuck Barlow** B **G. Weinberg** C **E. Hynes** D **J. Whitehead**

E **Tom Pirelli** F _____ G _____ H **Mike Brown**

I **Rich Helpie** J **Carolyne Davis** K **Jim Macaleer** L **D. Pomerance**

M _____ N _____ O **Ralph Korpman** P **Marion Ball**

WHO ARE THESE PEOPLE?

First Among Today's HIS Vendors

- We complete the HIS-tory of *today's* vendors with **McKesson**, whose 2012 "Provider Technology" annual revenue of $3.2B puts them a solid #1:

1. $3.2B = McKesson, née HBOC = Walt Huff, Bruce Barrington, & Dick Owens
2. $2.6B = Cerner, *still* run by Neal Patterson, co-founded by Cliff Illig & Paul Gorup
3. $1.8B (est) = Siemens, née SMS: Jim Macaleer, Harvey Wilson & Clyde Hyde
4. $1.5B = Epic. Gee, I have to wonder, just *who* was it who founded them?
5. $1.4B = Allscripts, née Eclipsys, also founded by Harvey Wilson of SMS.
6. $850M (est) - GE Healthcare, née IDX/PHAMIS: created by Malcolm Gleser
7. $597M = Meditech, *still* run after all these years by Antonino Papallardo
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12. $106M = QuadraMed, née Compucare, founded by Sheldon Dorenfest
13. $75M (est) = Healthland, formerly Dairyland, founded by Steve Klick

Fitting Finale

- It's only right that this last episode on today's vendors will easily be the longest and most complicated, as **McKesson's** roots in terms of companies & products are incredibly deep and wide:
  - 1833 – yes, an amazing *180 years* ago John McKesson and Charles Olcott founded the company in New York City to import and sell therapeutic drugs and chemicals wholesale.
  - 1963 – *50 years* ago, Walt Huff started his HIT career when he became CFO for the Sisters of the Third Order of St Francis in Peoria, then went to McAuto before forming **HBO**.
  - 1999 – in the biggest acquisition in HIS-tory, McKesson bought **HBOC** for a staggering $14B, creating a combined firm with $23B in annual revenue, before the scandal…
  - 2003 – **McKesson/HBOC** forges ahead of Siemens for #1 place in HIS vendor annual revenue, leading the pack since.

Many Thanks

- Amazingly, there are still a number of HIS veterans still working at McKesson all these years later, and I must give thanks to several of them who put me in touch with the original founder of HBO:
  - Jim Pesce – who enlightened us in earlier HIS-tories on GE, McAuto and Micro Healthsystems, and now heads McKesson's Enterprise Products Division.

  - Mark Sweeney – an HBOC veteran still working at McKesson who put me in touch with his old friend:

  - Larry Gerdes – who first arranged financing from his bank for HBO's start-up in Peoria IL, then joined them in 1977 as their CFO. Larry introduced me to:

  - Walt Huff, *da man* in this HIS-tory who took time off from his busy schedule still working with Larry at Gerdes-Huff Investments to tell his fascinating tale.

  Muchas Gracias!!

A *Long* Story…

- Don't know if I'll top Proust's 4,211 pages for "Remembrance of Things Past," but this tale will take a lot of episodes as it covers so many people, companies and products McKesson/HBOC acquired over the years - almost a mini-review of HIS-tory!

- A high-level outline of the episodes over the coming weeks:

  – Walt Huff's early days at OSF in Peoria writing their "CRASH" shared financial system with another HIS-tory hero: <u>Urban Gerber</u>, which was acquired by McAuto and renamed "HFC"

  – Walt's two partners who dared to leave McAuto in 1973 to write a data-collection system on a Four Phase mini:

    - <u>Bruce Barrington</u> – who headed system development

    - <u>Dick Owens</u> – sadly departed, who led installations

  – Hooking up later with Urban and <u>Bill Brehm</u> to add their IFAS financial system on a DEC mini to MEDPRO's clinicals.

HBO's Merger Mania

- It will come as no surprise to industry veterans to learn that much of **HBO** & **McKesson's** growth was due to countless acquisitions:

- **HBO** "*minor*" (relatively speaking) acquisitions:
  - 1981 = MDC (Korpman)
  - 1984 = Mediflex (MediPac)
  - 1985 = Amherst (Trendstar)
  - 1994 = Serving Software
  - 1995 = ALS (LIS)
  - 1995 = Pegasus (SMR)
  - 1996 = CyCare (MD Billing)
  - 1997 = Amisys, Enterprise, HPR, National Health Enc.
  - 1998 = Imnet (imaging)

- **HBO** *major* acquisitions (each the result of many mergers):
  - 1994 = IBAX, itself created from 3 HIS pioneers:
    - JS Data
    - Dynamic Control
    - Stonybrook Systems
  - 1995 First Data Corp. (AMEX) and comprised of:
    - Systems Assoc. (Saint)
    - McAuto (HFC, HDC, PCS, LabCom, et al)

McKesson's Merger Mania

- With its multi-billion dollar drug revenue, **McKesson** continued **HBO's** strategy of growth through acquisitions into the 2000s:

  - 1999 = **HBOC** itself, leading to the subsequent scandal that preceded Enron *by two full years*, showing how our HIS industry leads the way in groundbreaking developments…

  - 2000 = HCSI (Pharmacy)

  - 2002 = ALI (PACS)

  - 2007 = Per Se (many systems per se)

  - 2007 = Practice Partners (MD Billing)

  - 2012 = MED3000 (healthcare management & technology) and Medventive (risk management)

  - 2013 = HIS-Talk (just kidding…)

Week in healthcare

Fuzzy math

Software vendors' contingency agreements source of questionable accounting practice

NEW YORK POST

BAD LAY

Enron's Kenny Boy guilty, faces 165 years

Yankees Mini Baseballs

But First…

- Before we start this complex HIS-tory of HBO & McKesson, several HIStalk viewers offered help identifying more of Bill Child's picture quiz from Computers in Healthcare that ran last week:
  - <u>Dave Pomerance</u>, co-founder of Dynamic Control Corporation:
    - *Hi Vince, I must tell you I have certainly been enjoying your trip down memory lane. I will volunteer that I am L on your page 13 photos. Hope you are well, and enjoy your Sunday.*
  - Susan K Newbold, Director, Nursing Informatics Boot Camp:
    - *"Slide 12 Bill Child's Challenge: picture H= Steven A Huseing, former Executive Director, International Medical Informatics Association, picture O = Shirley Hughes. On slide 13 of Bill Child's Challenge: J = Carolyne K Davis, PhD, RN, former Ernst & Young, former HCFA Administrator"*

But Wait, There's More…

- <u>Bruce Brandes</u>, currently EVP at Valence Health:

  - *"Vince*

    – on your last slide, picture E is Tom Pirelli, co-founder and CEO of Enterprise Systems (ESI), a materials management and surgery software company based in Wheeling IL, which is now the resource management group of McKesson . Tom and his co-founder Dave Carlson were former American Hospital Supply guys, and huge Star Trek fans, thus the "all aboard the Enterprise" announcement every time you walked into the front door of the office! Tom was replaced as CEO in 1995 by Glen Tulman (his first healthcare CEO gig), followed by an IPO in 1996 and sale to HBOC in 1997.I joined in 1993 from IBM, had the best time with some of the smartest, most fun people with which I've ever had the pleasure to work. Any Director of Purchasing or Surgical Services will tell you stories of the legendary user group meetings (I am sure someone has pictures of Joe Carey (former Allscripts COO) which he would prefer not ever resurface…

    - Bruce"

Only 4 Left!

Thanks to <u>Craig Schlusberg</u>
from Aspen Advisors:

"Hi Vince,

I'm thoroughly enjoying H.I.S-tory. Letter C on slide 13 could be my former boss and mentor Everett Hines, maybe from his days at Columbia Presbyterian prior to C&L. Not sure, but it might be worth checking with him. Regards,

- Craig"

A **Chuck Barlow** B **G. Weinberg** C **E. Hynes** D **J. Whitehead**

E **Tom Pirelli** F _____ G _____ H **Mike Brown**

I **Rich Helpie** J **Carolyne Davis** K **Jim Macaleer** L **D. Pomerance**

M _____ N _____ O **Ralph Korpman** P **Marion Ball**

WHO ARE THESE PEOPLE?

Updated Portraits

WHO ARE THESE PEOPLE?

The first person to return to us the correct names for each photo will win a $250 U.S. Savings Bond! Send answers to: Healthcare Informatics Contest, P.O. Box 2830, Evergreen, CO 80439, or fax to (303) 674-3134. No answers by phone, please.

B **Mark Gross**

H **Steve Huseing**

I **Art Randall**   J **Frank Russo**   L **Steve Macaleer**

M **Peter Marsh**   N **Ford Phillips**   O **Shirley Hughes**

- So here's how things stand identifying these faces in Bill Childs challenge from an article in his from Computers in Healthcare magazine from the late 1980s.

- I would sure appreciate hearing from anyone out there who recognizes the remainder, for which I'll gladly split the $250 US Savings Bond from Bill!

Updated Vendor C-Suite Timeline

- <u>Susan Rivers</u>, Content Analyst, Encore Health Resources added more to the ever-growing vendor C-Suite timeline:

- *"Vince*

  – Regarding history for Technicon / TDS Healthcare Systems – it's very nice to read and remember back as I was an employee in the 1980's and was there during the time that Ian Hicks, William Seabrook, and John Whitehead were Presidents. I noticed a couple things that I wanted to provide you with some updates on. Chuck Tapella's last name is misspelled in Bill's posting. It should be Tapella, not 'Tepella.' Also, on the timeline, you are showing William Seabrook after John Whitehead. Actually, he came in right after Ian Hicks; and John Whitehead became president after William Seabrook. Hope this is helpful to you.

  - Susan"

Final(?) Vendor C-Suite Timeline

- If you want the detailed file in Excel, or have more input on founders and number twos, email me at *vciotti@hispros.com*:

Leading HIS Vendors' C-Suite Time-Line

	1969	1976	1980	1985	1990	1995	2000	2010	2013
HBO / HBOC / McKesson									
Chairman:	Walter Huff			Holcomb Green	Walter Huff		John Hamergren		
President:		John Lawless		Larry Gerdes	Darrell Young Charlie McCall		Graham King	Pam Pure	Patrick Blake
PGI / Cerner									
Chairman/CEO:			Neal Patterson						
President:							Trace Devanney		Zane Burke
SMS / Siemens									
Chairman:	Jim Macaleer						n/a		
Pres./EVP:			Harvey Wilson	Mark Levitan Graham King	Marv Cadwell		Frank Lavelle	Janet Dilione	John Glaser
HSC / Epic									
Chairperson:			Judy Faulkner	Epic					
EVP/President:							Karl Dvorak		
Lockheed MIS / Technicon MIS / Revlon / TDS / AllTell / Eclipsys / Allscripts									
President:	Kenneth Larkin	Mel Hodges, Ian Hicks, William Seabrook, John Whitehead				Harvey Wilson	Paul Ruffin Phil Pead	Glan Tullman	Paul Black
BDP / IDS / IDX / GE									
President:	Hoel & Tarrant	Richard Tarrant		IDX		Jim Crook		Vischal Wanchoo, Jan DeWitt	
Meditech									
Chairman:	Neal Pappalardo								
CEO/Pres:			Larry Palomino				Howard Messing		
Quality Systems Inc / NextGen									
President:		Sheldon Razin					NextGen	Steve Plochocki	
CPSI									
Founders/President:		Kenny Muscat & Denny Wilkins				David Dye	Boyd Douglas		
HMS									
Founders/President:			John Doss & Tom Givens				Tom Stevenson		
KeaMed / Keane HSD / Caritor / NTT									
President:	Ray Paris			Keane HSD		Walt Kaczor		Caritor	Mike Jones
Compucare / IBAX / Compucare / QuadraMed / Harris									
President:	Shedlon Dorenfest	Ron Apprahamian		Frank Russo	Ron Apprahamian		Larry English Keith Hagan Jim Duncan		
Dairyland / Healthland									
President:			Steve Klick				Jim Burgess	Angie Franks	

H.I.S.-tory

by Vince Ciotti

Episode #113:

McKesson

Part 2 = OSF

Da Man!

- The story of HBO begins with its 3 namesakes:
  - <u>Walter Huff</u>, founder, chairman and CEO
  - <u>Bruce Barrington</u>, who led development
  - <u>Richard Owens</u>, who led implementation
- And a surprising re-appearance of a ***fourth*** HIS-tory hero who actually started the troika off on their HIS development path…

   - Bet not a single HIS-talk reader can guess who this was!?!?

- Credit for this episode goes to Walt Huff who kindly took time off from his busy retirement (he still works with former CFO <u>Larry Gerdes</u> at Gerdes-Huff Investments) to tell this inside HIS-story.

  - Walt graduated from Monmouth College in Illinois in 1956 as an economic major – yes another "frozen north" HIS vendor roots!

Generous Alumni

Huff Athletic Center

- Walt never forgot his debt to <u>Monmouth College</u>, eventually funding their multi-million-dollar Huff Athletic Center, above.

- He started his business career working for the accounting firm of <u>Peat, Marwick and Mitchell</u> – another pattern? Our last episode on Cerner traced the roots of Patterson, Gorup & Illig from AA…

- Turns out PM&M was big in Healthcare in Illinois back then, and young Walt was assigned to one of their major local clients:

- <u>The Sisters of the Third Order of St Francis</u> in Peoria, IL (OSF). Walt gradually became the manager of that account, and grew increasingly frustrated with their crude NCR posting card system (see episode 5 at *hispros.com* for details), that made balancing cash & AR a daily nightmare.

HIS-tory Hero Redux

- Walt was quite impressed that OSF had installed an IBM 1401 keypunch card system to automate patient accounting functions in the early '60s. And who was the DP Manager at OSF? You may as surprised as I to learn it was none other than Urban Gerber, the same man of later *Gerber*-Brehm and *Gerber*-Alley fame (see episodes 22 & 23 for details of these turnkey mini pioneers)!

  - Walt left PM&M to become OSF's CFO in 1963, and they upgraded to an IBM 360 series mainframe in the mid-60s, joining nearby Caterpillar as 360 devotees.

- All 11 OSF hospitals easily ran on the new hardware, but software was another issue. They tried running IBM's PAL and SHAS, but didn't like the batch processing, so R&D maven Bruce Barrington built OSF's own **C**entralized *Real-time* **A**ccounting **S**ystem for **H**ospitals, aka "**CRASH**" (I'm not making this up!). Urban left OSF to join Ross Perot, and Dick Owens led the CRASH installation effort.

From Crash to SHIS to HFC

- OSF's **CRASH** used IBM 1050 terminals at its hospitals throughout IL, transmitting data back to the central OSF mainframe in Peoria, enabling real-time inquiry into AR accounts (like SHAS), as well as *real-time* edits (a vast improvement over SHAS' *batch* TCEs…).

- Walt's next challenge was eliminating the 2-3% of lost charges hospitals incurred, so his team began to write a Shared Hospital Information **S**ystem ("SHI**S**" – thankfully, the word **T**echnology wasn't in vogue at the time…) with *on-line* Order Entry replacing multi-part charge requisition forms with their carbon-paper copes requiring physical delivery to ancillaries and the B.O. **SHIS** was funded through a government grant Walt received for ≈$3M.

- **SHIS** employed the same plastic overlays that SMS' Mike Mulhall used at Monmouth in NJ at IBM's pioneering HIS project (see episode 8 for details) to guide clinicians through the (too) many keystrokes…

CRASH & SHIS go commercial

- The Illinois Hospital Association (IHA) was so impressed by Walt's teams' new systems that they installed **CRASH** at 31 member hospitals by 1970, when OSF also completed the 1st demo of **SHIS**.

- OSF's DP department was now generating more revenue than some of its smaller hospitals, and its Board decided to spin off the outside business, reaffirming their hospital-based mission only.

- The leading bidder was nearby McDonnell-Douglas in St. Louis, who sent a consultant named Chuck Barlow to study the potential. Chuck's report was so glowing that Bob Harmon, head of their McAuto DP division, told Chuck: "If you're so bullish, *you* run it" – and the rest is HIS-tory…

- Not surprisingly, McAuto re-named **CRASH** as **HFC** (Hospital Financial Control), and **SHIS** morphed into **HPC** (Hospital Patient Control), a predecessor to the later, Tandem-based **PCS**. Walt, Bruce & Dick all came along with the deal reporting to Chuck, but were allowed to stay in Peoria and run the 360 data center there.

Mighty Minis Match Mainframes

- In the early 70s, minicomputers started their entrée into the DP world, and Bruce Barrington explored Four Phase minis as a front-end to HFC, replacing the keypunch-card 1050 terminals. To quote Walt directly:

"Barrington became very familiar with the equipment and software, even maybe knowing more about its capabilities than Four Phase themselves.   By 1972 I had made a presentation requesting funds to develop a data collection system using Four Phase equipment. MCAUTO turned it down saying that little minicomputers would never replace mainframes…"

- Wow, what a quote - sounds like what most IT pundits said about PCs a decade later! And what my Microsoft DOS friends said when I bought my first Apple Mac in 1987…

- *"Bruce decided to leave and develop the software on his own. Four Phase let him use their facilities in Chicago at night. Bruce was a great innovator of software and created his own operating system on Four Phase called ROS which ran MEDPRO. After a couple of months he got Owens to join him in the effort and finally by 1973 they had convinced me that they had something very worth while."*

HBO Is Born!

- So there it is, right from the horses mouth: how **HBO** was born, and another HIS pioneer, <u>Urban Gerber</u>, helped them get started! Next week we'll pick up the fascinating inside story from Walt about how he, Bruce and Dick built MedPro and IFAS, played some fascinating corporate games over their Co. name, etc.

- But first some more feedback from HIStalk readers about those puzzling picture portraits – starting with an old SIDA friend:

  - *Hi Vince, I trust you are doing well and like me, gracefully getting old???*

    I was just reading you're HIS-tory for Monday, Oct 14th, and let me offer the following... C on Slide 11... is that Rick Adam (sp?) from the old IBAX days? Also, P on Slide 11... isn't that Mark Fidler from his Continental days, then Clinicom, and a few other companies....?

    Love your work; it really does bring back some good memories.

    <u>Larry Pawola</u>, PharmD, MBA, Director of Graduate Studies
    Department of Biomedical and Health Information
    University of Illinois at Chicago (312) 996-1446"

On The Other Hand…

- However, picture C also got this input form another reader:
  - <u>Rhonda Russell</u>, VP, EIS Services, Bell South:

    "On Bill Child's portraits, C might be Glen Rosenletter, formerly the head of international business for HBO. And on the timeline, Quadramed is Duncan James, not Jim Duncan   :)"

- Ohhhh, I'm such an idiot spelling Duncan James' name wrong on the C-Suite timeline. And I'm going with Rhonda over Larry for picture C – after Walt Huff thought it looked like him too:

    "Glen Rosenkoetter was a star salesman at HBO when I was there."

- <u>Jeff Parypinski</u>, VP at RelayHealth, also caught the Duncan gaffe and pointed out a brand new CEO at Healthland:

    1. Chris Bauleke, formerly of McKesson, is now CEO of Healthland.
    (Angie Franks now reports to him)

    2. The Jim Duncan listed under QuadraMed is actually Duncan (1st name) James (last name).

But Wait, There's More…

- <u>Don Morrison</u> - R.Ph., MBA, Florida Health Alliance

- *"Vince, I believe that the individual on Page 11, Letter "P" is Mark Fidler, who is believe is still a recruiter in the HIS Industry. I believe he is a former McAuto person from the 80's, but don't have a lot of other background on him, other than he has come up with a couple of positions for me over the years. His phone number is 817-251-8913 and his email is fidlerm@aol. I haven't spoken with him in a couple of years so I'm not sure if that information is current. I have enjoyed your series immensely. One company that I have not seen, or may have missed, is SoftComputer.   I believe that I met you in the mid 90's when you were doing a selection involving them and I was attempting to develop a pharmacy system for them (by myself!). They would surely make an interesting story, I'd say that they are the biggest secret in HIS as practically no one has heard of them and I believe they have hundreds of customers. (And a totally unique style which would even make Judy Faulker appear normal). Anyway, best of luck, thanks for the series, and I'm pretty sure that guy is Mark Fidler. Take care. Don"*

Updated Portraits

A. _____ | B. **Mark Gross** | C. **Rosenletter** | D. _____
E. _____ | F. _____ | G. _____ | H. **Steve Huseing**
I. **Art Randall** | J. **Frank Russo** | K. _____ | L. **Steve Macaleer**
M. **Peter Marsh** | N. **Ford Phillips** | O. **Shirley Hughes** | P. **Mark Fidler**

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- So here's how things stand identifying these faces in Bill Childs' challenge from an article in his Computers in Healthcare magazine from the late 1980s.

- I'm going with Rhonda on picture C unless any readers can decide between her and Larry Pawola's suggestion it might be Rick Adams!?

HBO's C-Suite Timeline

- As if he has nothing else to do, Walt Huff was kind enough to clear up HBO's long line of Chairmen & Presidents over decades:

  "Vince, I just got to looking in detail at the HBO time line. The following are people and approximate dates as I remember them.

  - 1973 founding and Huff was Chairman, CEO and President

  - 1983 John Lawless became President

  - 1984 Holding company formed and Jim Napier was President of Holding company. John Lawless was CEO and President of HBO sub

  - 1985 Holding company abandoned, Huff = Chairman, President and CEO

  - 1986 Lawless left company

  - 1990 Huff left as officer and board member. Holcomb Green became Chairman, Darrell Young president of HBO (mini computer division), Robert Murrie President of MEDIFLEX (Facilities Management), Larry Gerdes, President of the Equipment Maintenance Sub SSI)

  - 1991 Holcomb Green Chairman, Charlie McCall, President

  - 1995/6 Charlie McCall Chairman, CEO and President

  Hope that helps, and dates are the best I can remember. Walt"

Latest Vendor C-Suite Timeline

- With HBO's executives, Duncan spelled correctly, and Angie's new boss:

Leading HIS Vendors' C-Suite Time-Line

	1969	1976	1980	1985	1990	1995	2000	2010	2013

HBO / **HBOC** / **McKesson**
- Chairman: Walter Huff — Holcomb Green, Charlie McCall — John Hamergren
- President: John Lawless, Jim Napier, Darrell Young, Charlie McCall — Graham King — Pam Pure — Patrick Blake

PGI / **Cerner**
- Chairman/CEO: Neal Patterson
- President: Trace Devanney — Zane Burke

SMS / **Siemens**
- Chairman: Jim Macaleer — n/a
- Pres./EVP: Harvey Wilson — Mark Levitan — Graham King — Marv Cadwell — Frank Lavelle — Janet Dilione — John Glaser

HSC / **Epic**
- Chairperson: Judy Faulkner
- EVP/President: Karl Dvorak

Lockheed MIS / **Technicon MIS** / **Revlon** / **TDS** / **AllTell** / **Eclipsys** / **Allscripts**
- President: Kenneth Larkin — Mel Hodges, Ian Hicks, William Seabrook, John Whitehead — Harvey Wilson — Paul Ruffin — Phil Pead — Glan Tullman — Paul Black

BDP / **IDS** / **IDX** / **GE**
- President: Hoel & Tarrant — Richard Tarrant — Jim Crook — Vischal Wanchoo, Jan DeWitt

Meditech
- Chairman: Neal Pappalardo
- CEO/Pres: Larry Palomino — Howard Messing

Quality Systems Inc / **NextGen**
- President: Sheldon Razin — Steve Plochocki

CPSI
- Founders/President: Kenny Muscat & Denny Wilkins — David Dye — Boyd Douglas

HMS
- Founders/President: John Doss & Tom Givens — Tom Stevenson

KeaMed / **Keane HSD** / **Caritor** / **NTT**
- President: Ray Paris — Walt Kaczor — Mike Jones

Compucare / **IBAX** / **Compucare** / **QuadraMed** / **Harris**
- President: Shedlon Dorenfest — Ron Apprahamian — Frank Russo — Ron Apprahamian — Larry English, Keith Hagan, Duncan James

Dairyland / **Healthland**
- President: Steve Klick — Jim Burgess, Angie Franks, Chris Bauleke

H.I.S.-tory

by Vince Ciotti

Episode #114:

McKesson

Part 3 = HBO

Another HBO Pioneer

- Thanks once more to Dan Mowery at McKesson for introducing me to HBO's *14th* employee: Dan La Benne

  "Vince,

  *You may not remember me but we have met a few times at different industry functions like HIMSS, etc. My first recollection of you goes back to SMS days when you taught the installation training classes I attended in King of Prussia. I was an Installation Director working for Fred Abel in Atlanta, shortly after the SMS acquisition of American Hospital Supply's ISD division, which included the HCC (Hospital Computer Center) out of Flint Michigan. That company was founded by Bob Gillow and David Wright who were well known competitors to Jim Macaleer and Harvey Wilson. I attended those classes with Lloyd Koenig and others. After training we returned to ATL and converted all of the old Georgia Hospital Association hospitals to the SMS system. **In 1976, I left SMS and went with a little known start-up out of Peoria: HBO and Company. I believe I was the 14th employee. This was just before Larry Gerdes joined the company, but after Dennis Crean, John Lawless and Rae Bell.***

  - Dan La Benne"

First "Headquarters"

- Dan sent me a treasure trove of pictures including those on the first slide which are the original trailer Walt, Bruce & Dick worked out of in 1973, vs. HBO's 1989 headquarters in ATL. Other gems:

Left = Walt's first desk

Right = Four Phase mini in the other end of the trailer – no monster mainframe would fit!

Left = Hard at work on the Four Phase mini

Right = John Lawless, HBO's first President under Walt Huff, Chairman.

HBO Is Born

- Walt Huff continues his story of how HBO was originally a *partnership* among he, Bruce and Dick, started with $30K in capital out of their own pockets. They agreed to work together for one year with *no* salary and see just how things would go…

- Bruce Barrington made great progress programming MEDPRO, and they soon gave a demo to their first prospect hospital:

- Galesburg Cottage Hospital - about an hour away from Peoria, who loved the demo and couldn't wait to buy it. Walt came up with an ingenious sales plan: he *leased* the hardware & software to them for 7 years, rather than a sale.

- Sounds like IBM's leasing-only policy prior to their 1960's consent decree, and an excellent business model for a start-up firm as it guaranteed a steady cash flow during those tight early years…

Key to MEDPRO's Success

- A prime reason for MEDPRO's popularity was in recovering the ≈3% of lost charges that most hospitals experienced in those days of paper charge tickets. Only large hospitals could afford inhouse mainframe clinical systems like **TDS**, **NadaCom** and **DataCare** that computerized the Order Entry process (aka data collection) and automatically posted charges to patients' billing accounts.

- What would *your* hospital lose today if every patient test, procedure and medication had to be manually stamped with an addressograph plate with (hopefully) the correct patient's number, priced (eventually) by some clerk in the ancillary department, and then keyed into the billing system in the Business office to the (possibly) correct patient's account?

How Well Did MEDPRO Sell?

- Small and mid-sized hospitals had turned to shared systems like **McAuto** and **SMS** for their *financial* system needs, but sharing offered very in the mid-1970s for order entry (data collection) systems, so MEDPRO had a perfect "shared" target market!

- MEDPRO sold so well that **SMS** licensed it as ACTIon (episode 103 at hispros.com), and Walt also sold marketing rights to **Source Data Systems (SDS)** in Cedar Rapids, Iowa, that was eventually bought by **Keane**.

- To see how well MEDPRO sold, check out **HBO's** market dominance in Sheldon Dorenfest's 1982 Guide:

FIGURE V - 5

SALES OF TOP 11 COMPANIES IN
DATA COLLECTION APPLICATIONS

Company	1980	1979
HBO & Company	$27.5	$19.0
IBM	$19.0	$14.0
Shared Medical Systems	$19.0	$12.0
McAuto	$9.0	$7.0
NCR	$5.0	$5.0
Digital Equipment Corporation	$5.0	$5.0
Compucare	$2.1	$.6
Burroughs	$2.0	$2.0
Data General	$2.0	$1.0
Sperry Univac	$2.0	$1.0
Tandem Computers	$1.0	$.5

$ In Millions
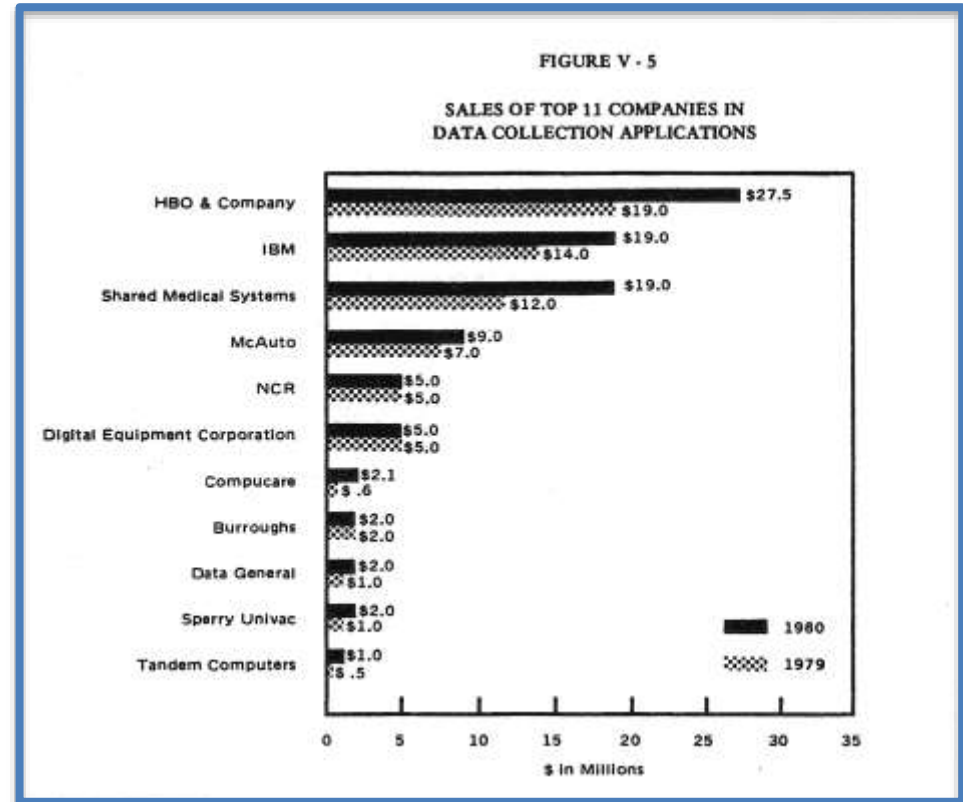
MEDPRO's Market Share

- In case you can't read the small print on the preceding chart, that's a growth rate of *44.7%* for **HBO**, from $19M in 1979 to $27.5M in 1980 – hot stuff! Below is another chart from Sheldon's 1982 Guide that shows the number of hospitals on each vendor:

FIGURE V - 6

NUMBER OF HOSPITALS USING THE DATA COLLECTION APPLICATION PRODUCTS OF COMPANIES WITH MORE THAN 10 CUSTOMERS
1980

Vendor	Number of Hospitals
HBO & Company	215
Shared Medical Systems	95
IBM	40
McAuto	40
NCR	35
Burroughs	15

Number of Hospitals
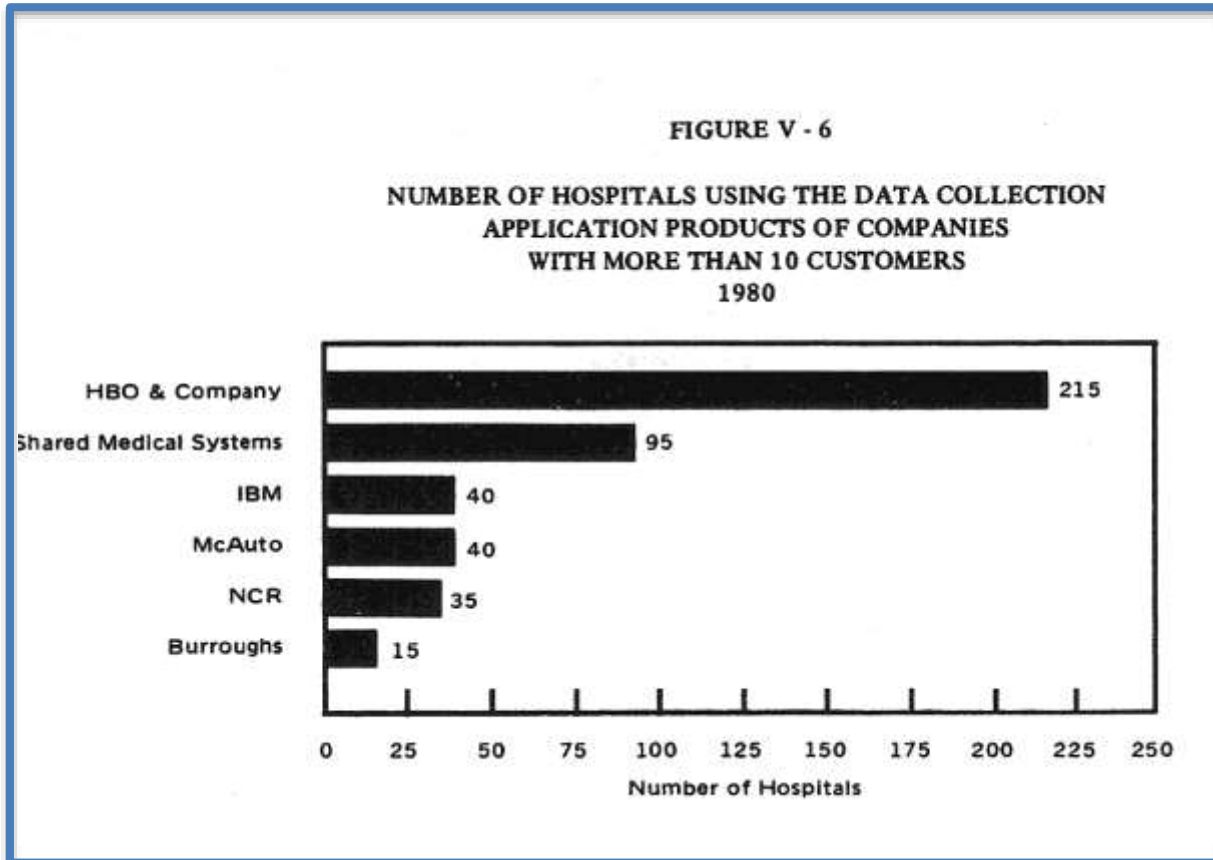
- **SMS** was almost all ACTIon 1100 (DEC PDP) and 1500 (DEC VAX) by now, as their deal with HBO ended c.1978

- **IBM** was mostly self-developed.

- **McAuto** was their Four Phase/DEC combo of HDC.

HBO Product Growth

- <u>Dan La Benne</u> points out that MEDPRO was relatively thin by today's standards, comprised of ADT, Census and Order Entry. Dan personally headed up the addition of nursing modules to assuage the needs of early progressive clients like Providence in Portland OR, Concord in NH, and United in Minn. Dan was very proud of the ADL (Activities for Daily Living) reports for nursing diagnosis.

- And the very same <u>Dan Mowery</u>, who introduced me to La Benne, added RX functionality, being a former Pharmacy Technician.

- HBO's biggest gap was *financial* systems, which most minicomputer HIS competitors offered by the mid-70s, like **Dynamic Control**, **Saint**, **JS Data**, etc. This would be a *huge* project, requiring mucho dinero!

- As well as a move to Atlanta that Walt & Co. were contemplating in the Peoria winters…

Financial Challenges

- Adding new products, expanding the staff and moving that trailer down to Hot-lanta cost so much money that Walt & Co. had to turn to banks to get funding for all this growth. **HBO's** local bank in Peoria had a 22-year old financial analyst who was tasked with researching this nearby start-up company asking for a $1M loan. HBO had a number of MEDPRO clients at the time, and he called several and got such glowing reports that he convinced the bank to approve the loan. And who was this young banker?

  - Larry Gerdes, who was so impressed by the start-up that he left the bank in 1977 to join Walt as **HBO's** CFO. Larry grew up on a farm in nearby Walnut, IL, and earned his MBA at the U. of Illinois. He subsequently helped **HBO** get additional loans from banks in Chicago & NY, and led their IPO in 1981.

HBO's Biggest Competitor?

- An old friend from SMS named <u>Charlie Covin</u> once told me an hysterical story of when he worked for **HBO's** NJ office in those early days and received a call from an irate customer complaining that their screens only worked on their first floor, not the 2nd. Charlie had her turn screens on & off, etc., only to eventually figure out she was talking about **H**ome **B**ox **O**ffice!! He adds:

  > *"IDX had a similar problem; originally named Interpretive Data Systems (IDS), they were confused with American Express' <u>Investors Diversified Services</u>. They lost because Amex had more lawyers and deeper pockets."*

- Larry Gerdes adds how his **HBO** actually called Ma Bell's directory assistance line to correct the error for both companies, who were receiving many of each others' calls. They even negotiated an $800K price tag with a senior VP at the "other" **HBO** for rights to the acronym, but the offer later got rescinded. So, "our" **HBO** became known as "**HBOC**" to try to end the name confusion…

Next Week…

- So there it is, right from the horses' mouths: the earliest days of **HBO.** Next week we'll pick up the inside story from Walt, Larry & Dan about how they grew **HBO's** product line to include a mini-based financial system and more from their photo collections.

- But first, *more* feedback from HIS-Talk readers about <u>Bill Childs</u> picture portrait puzzle – starting with another **HBO** veteran:

  - *"Vince, I just checked out Episode #112 on McKesson. I worked there for 23 years, from MediFlex Systems to HBO & Company to HBOC to McKessonHBOC to McKesson. The person in picture E is John Kerr. He was the President of MediFlex Systems when they were acquired by HBO & Company. Also in Walt's feedback on the C-Suite Timeline, he stated that in 1990 Robert Murrie was named President of MEDILEX. It was actually MediFlex and in addition to Facilities Management, the division was also responsible for the mainframe Patient Accounting System called MediPac. The division changed their name to HealthQuest shortly thereafter. Great stories, keep them coming!"*

  - *Gary B Gerber, CPA, Logicalis, Inc.*   (no relation to Urban…)

    847-748-2521   *gary.gerber@us.logicalis.com*

Updated Portraits

WHO ARE THESE PEOPLE?

The first person to return to us the correct names for each photo will win a $250 U.S. Savings Bond! Send answers to: Healthcare Informatics Contest, P.O. Box 2830, Evergreen, CO 80439, or fax to (303) 674-3134. No answers by phone, please.

- So here's how things stand identifying these faces in Bill Childs' challenge from an article in his Computers in Healthcare magazine from the late 1980s.

- Surely *someone* in our industry today recognizes these few remaining un-named faces? We might still get Bill to cough up that $250 Savings Bond…

H.I.S.-tory

by Vince Ciotti

Episode #115:

McKesson

Part 4 = HBOC
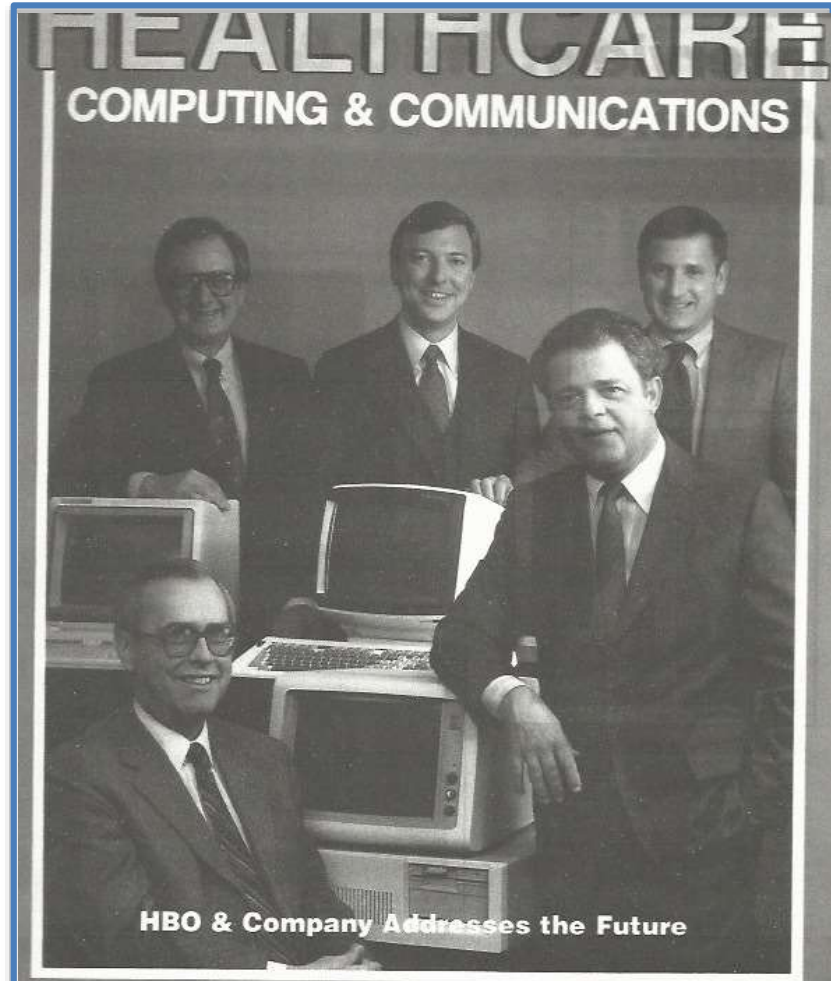
A 1980's scan from Walt Huff himself:
Standing: left = Tom Muller, center = John Lawless, right = King Deets, right front = Jim Napier. Seated = Walt Huff

HBOC's Product Line Grows

- By the late 70s, **HBOC's** MEDPRO has swept the mid-sized hospital data collection market with over 200 clients, but the Four Phase mini was just about maxed out. Even super-techie Bruce Barrington was reluctant to add more of the missing pieces to it (like LIS and financials) and still keep up rapid response times.

- In 1975, **HBOC** scored one of its biggest contracts with Humana, who hired Urban Gerber from Perot to install MEDPRO in its 30 hospitals. When Humana acquired American Medicorps in 1978, they now had *scores* of hospitals running SMS's shared financials to convert, so Walt & Co. set up a subsidiary in Louisville to start writing a mini-based financial system headed up by Urban. Urban brought in Bill Brehm from **SMS** as his partner (see episode 22 at *hispros.com*).

Medicorp Fighting Humana Takeover

BALA CYNWYD, Pa. (Special) — American Medicorp Inc. said it has filed suit against Humana Inc. alleging antitrust violations and seeking a preliminary and permanent injunction to prevent the takeover of American Medicorp by Humana, Louisville, Ky.

Humana Inc. said last week it is proposing to acquire up to 75 piece of the outstanding common Shares of American Medicorp.

In a suit filed in U.S. District Court of Philadelphia, American Medicorp alleged that the proposed offer violates both the Clayton and Sherman Antitrust Laws.

Gerber-Brehm and Associates

- Urban & Bill's eponymous firm started writing their financial system on a Four Phase, but it just couldn't handle the batch-processing challenges, so after some fitful "4φ" mini starts, they settled on an HP3000 box, a more powerful minicomputer.

NEW COMPUTER: Dr. Bruce Knopss, director of the PAUSD Educational Technology Department, and two Palo Alto High School Students, Ian Yoch and Bob Luck, admire the new Hewlett-Packard model 3000 computer, delivered November 29.

- They called their new system the "**I**ntegrated **F**inancial & **A**dministrative **S**ystem" or IFAS for short. The pilot hospital was the <u>Sisters of the Holy Cross</u>, a large MEDPRO client, who insisted on demos showing progress each month before making their next payment. When the system was finally completed, Walt merged the "secret" GBA subsidiary into **HBOC**, and now the combined package of MEDPRO and IFAS let **HBOC** compete with all the other mini vendors with clinical *and* financial systems like **DCC**, **JS Data**, **SAI**, etc.

Adding Apps, But Losing People

- As much as adding IFAS to its portfolio helped **HBOC** grow, 2 of the firm's original co-founders departed around the 1981 IPO:

  - <u>Bruce Barrington</u> – the programming maven who wrote most of CRASH (HFC), SHIS (HPC) and MEDPRO, left **HBOC** and in 1982 formed Clarion Software in Pompano Beach, Florida. Clarion Professional Developer (CPD, aka Clarion), allowed PC users to rapidly create programs without the add-ons like data bases required by conventional development tools, similar to what was provided by minicomputer vendors like Four Phase. In 91 Bruce licensed a compiler from Jensen & Partners International (JPI), and in 1992 he merged Clarion & JPI, re-named them as TopSpeed Inc., serving as Chairman. Clarion evolved through many releases over the years (just like HBO!). Bruce is 2nd from the left in this rare photo of him at a Clarion users group.

Another Departure

- The third member of the original founders, <u>Dick Owens</u>, also left around the time of the IPO. Dick and his wife Hootie were from Missouri with humble backgrounds, and moved to Peoria where Dick joined OSF in 1960, working for DP Manager <u>Urban Gerber</u>. He became expert in internal hospital operations and headed up installations of CRASH & SHIS. When Bruce left OSF to start writing MEDPRO, he asked Dick to join him. "With only a small house and one car, it was a big risk," remembers Dick. His dad told the family that "this would either make me or break me."

HBO sure "made" Dick and he spent his time after early retirement on philanthropic endeavors. "Angels in tennis shoes," says a lifelong friend. "You would never guess they were wealthy people. They loved to give…but never wanted any thanks." Dick sadly passed away in 2003, and his wife pledged $2 million to build OSF's "Owens Hospice Home."

And a Third Vet Leaves

- Walt's own words on Urban: "Gerber then became disenchanted at HBO and left to start Gerber-Alley. And you're right he died way too early. He was a friend and a good competitor."

- Another HIStalk reader recalls Urban, who passed in 1984:

  - *"I recently stumbled upon your H.I.S.-tory articles when I was looking for information on Urban Gerber. I knew Urban when I worked at a Humana hospital back in the mid '70s and he was the Corporate IT Director. I found your article interesting for a number of reasons. For one, I later worked at a hospital system in Knoxville, TN, that used the IFAS system and I never knew of Urban's involvement in its development. Also, I currently work at a system that still utilizes The Precision Alternative (TPA). I was aware of Urban's involvement with that application since it started as a Gerber-Alley application and later purchased by HBOC. Urban was certainly one of the most enthusiastic IT guys I have ever known and always seemingly full of energy. It is a shame he left us as young as he did."*

    Wayne Carney , Executive Director - Patient Financial Services, Baptist Health, Louisville, Kentucky *wcarney@bhsi.com*

While Another Pioneer Joins

- The acquisition of IFAS from Gerber-Brehm was only the first of numerous acquisitions by **HBOC** in the 1980s. The next in a wave of both mini and mega-deals involved another HIS-tory pioneer:

- Ralph Korpman - a pathologist working for Technicon in the 1970s, who left in 1976 to found his own LIS firm called **Medical Data Corporation** (MDC) in Loma Linda. Lab was one of the few gaps in MEDPRO as LIS modules (microbiology, AP, blood bank, etc.) were very complex and were purchased from specialty vendors in the 70s, like Meditech (their HIS = 1980s). Walt & co. bought MDC in 1981 after the IPO gave **HBOC** deep pockets.

- Korpman stayed with **HBOC** as a consultant (official title was "Chief Scientist") for a few years, and his MDC system was renamed "ClinPro" by **HBOC**. He left to form **Health Data Sciences** in 1983, whose UltiCare pioneered the use of CRTs at the bedside.

BEDSIDE
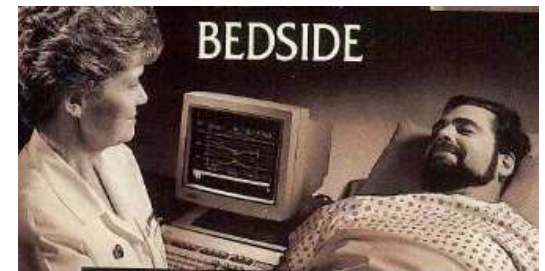
Correction

- My (again) sloppy writing confused folks last week:
  - <u>Dan Mowery</u> from McKesson *introduced* me to many HBO veterans, including:
  - <u>Dan La Benne</u> – who *provided* me with many inside stories and the classic pictures of the trailer, Walt's first desk, and this gem on the right about many other HBO folks who earned 5-year awards in 1981:

HBO **NETWORK**

Vol. 2, No. 4
November, 1981

FIVE YEAR SERVICE AWARD RECIPIENTS

Milton H. Helmuth

Dorliss R. Hulsey

John D. Schlenker

John K. Grebner

Walter S. Huff, Jr.

HBO's Service Award Program Reaches 5-Year Mark

Gerald J. Grippo

Virginia L. Nitz

John W. Lawless

Dennis M. Crean

Maurice D. Leman

What do five managers, two vice-presidents, two secretaries and one president have in common? In this case, all ten HBO employees have been awarded a five-year service ring from the Company. NETWORK polled some of the service recipients for what they felt have been the biggest changes since they joined HBO, or what their most unusual experience with the Company has been.

Since May of 1975, **John Grebner** has moved all over the country with HBO. He currently serves as IFAS Installation Manager at R&D and remembers when competitors laughed at HBO — "Now," he says, "they plan how to compete with us."

Maurice Leman, Peoria Branch Manager, was originally hired in June of 1974 as a Group Account Manager. Mo regards the most dramatic change in the Company to be, "the move away from everybody doing everything, to specialization."

Mega-Merger #1

- In 1985, **HBOC** consummated two deals that greatly increased its product line and market presence. The first was:

  - **Amherst Associates** – a consulting giant whose hospital management expertise was reflected by Modern Healthcare rating them in 1984 as the largest healthcare consulting firm outside of the accounting industry (viz: "The Big Eight"). The addition of Amherst's experts led to the creation of **HBOC's** TrendStar system for:

    - Cost Accounting, Decision Support, and Executive Information Systems (EIS)

AMHERST REVENUES
MILLIONS OF DOLLARS
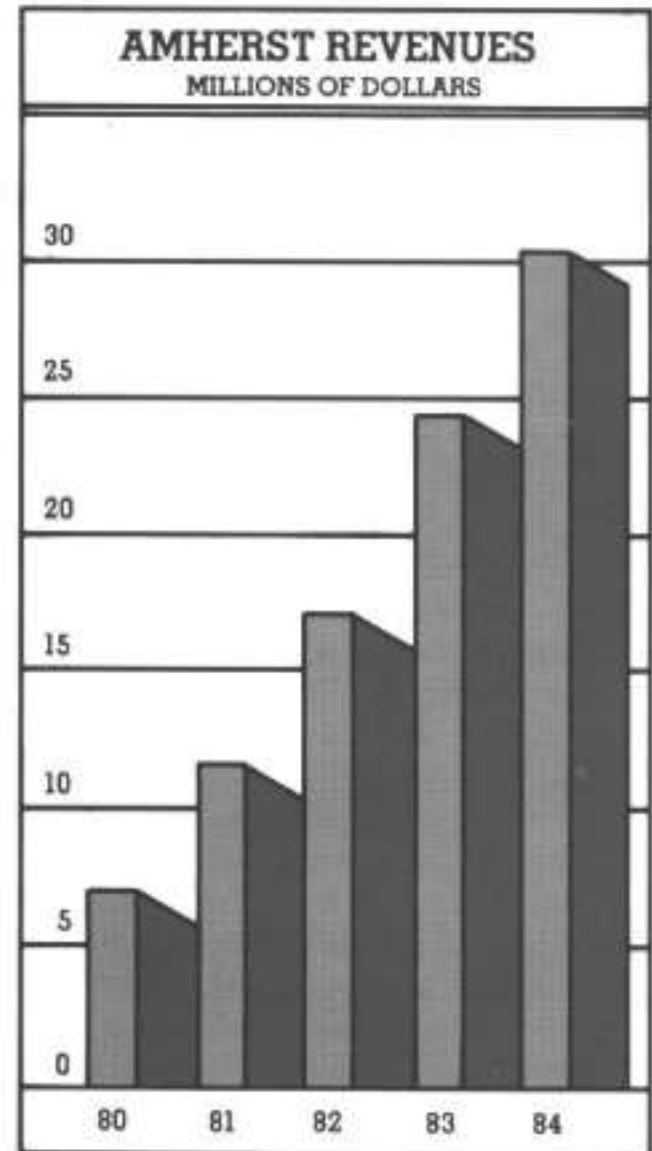
Mega-Merger # 2

- **HBOC** expanded beyond the world of minis with this next acquisition: **Mediflex**, whose MediPac accounting system was the leading software vendor in the lucrative **IBM** *mainframe* world.

- **Mediflex** was the IT subsidiary of **Medicus**, a leading facilities management (FM) firm in the 70s. The developed MediPac in COBOL on VSAM files at Evanston Hospital in IL, a major FM client of theirs. When **Mediflex** went public before **HBOC's** acquisition, I remember reading with dismay how their listing gave a financial arrangement with Evanston Hospital that provided for a ≈$75K payment for every site visit they conducted:

  - *A caveat emptor even for today!* *Do you ever ask that question on a site visit??*

MEDIFLEX REVENUES
MILLIONS OF DOLLARS

25 — 20 — 15 — 10 — 5 — 0

80 81 82 83 84
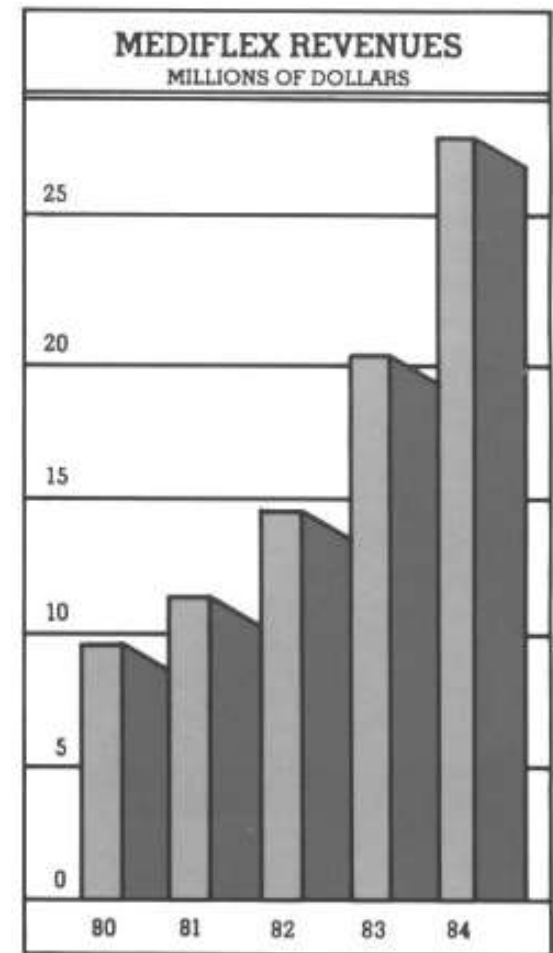
A Much Bigger HBOC

- The addition of **Amherst** and **Mediflex** made HBOC a giant that suddenly challenged HIS industry leaders like **SMS** and **McAuto**. Their product line now covered the full range of beds & apps:
  - <u>Turnkey Minicomputer-Based systems</u>:
    - MEDPRO and CLINPRO – which were renamed MEDSTAR and CLINSTAR when they switched from 4φ to DG minis
    - IFAS – financials running on the powerful HP3000 minis
    - GALAXY – small-hospital HIS running on Four Phase minis
  - <u>Inhouse & Remote Processed Mainframe systems</u>:
    - MEDIPAC – financials eventually renamed HealthQuest
  - <u>PC-based systems </u>(by the end of the 80s):
    - TRENDSTAR – evolved out of **Amherst** & **Medicus**' Cost Accounting, DSS and EIS systems, that started on shared DEC minis and IBM mainframes respectively (got that?).

New Management Team

- Walt made room for a number of new executives from the two acquired companies, shown below in Dan's photo from 1985:

Expanded HBO leadership, left to right, includes: John Kerr, HBO Field Operations; King Deets, President and CEO, Amherst Associates; James Napier, President and CEO, the holding company; Walter Huff, Chairman of the Board, the holding company; John Lawless, President and CEO, HBO & Company; and Thomas Muller, CFO, the holding company.

HBO's Rapid Rise

- By the end of the 1980s, the combined products & people of HBOC, Amherst & Mediflex catapulted them to the #2 position in the HIS industry in annual revenue, per my calculations below:

HIS VENDOR ANNUAL REVENUES ($$ in Millions)

Sources: Healthcare Informatics, Computers In Healthcare, Healthweek, Modern Healthcare...

VENDOR Parent	Subsidiaries	1980	1983	1984	1985	1986	1987	1988	1989
SMS		100	200	240	312	375	365	379	390
HBO		29	69	89	180	145	165	187	176
FDC (Amex)	McAuto, SAI	101	185	216	233	215	197	195	150
IBAX	DCC,PCS,JS	1	10	24	90	115	145	150	100
TDS/AllTell		31.2	46	53	51	40	40	55	60
CERNER	Megasource	1	1	2	10	20	30	40	49
MEDITECH			11	20	26	27	32	40	48
GERBER-ALLEY						7	12	16	27	41
KEANE (HSD)	Ferranti,PHS	3	17	24	52	50	42	44	29
GTE	IHC		3	2	6	9	20	30	28
COMPUCARE	(ex-IBAX)								23
PHS		3	17	24	30	30	27	30	21

Merger-Mania Continues
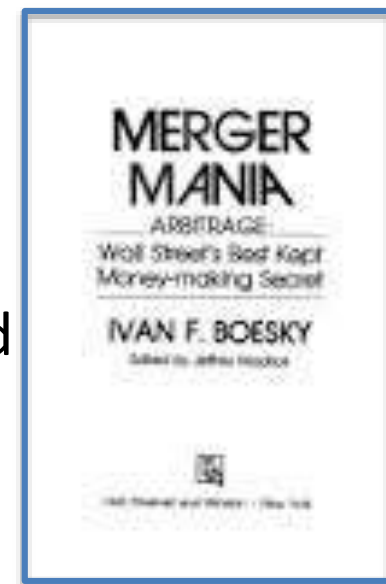
- Next week we'll trace **HBOC's** rash of mergers in the 1990s, leading up to their biggest deal of all when tried to acquire **McKesson** at the end of the decade (yes, Virginia, **HBOC** tired to gobble *them* up first!):

  - 1994 = **IBAX** – the combo of **IBM** and **Baxter** with

    several HIS pioneering vendors subsumed within

  - 1994 = **Serving Software** – hospital resource management

  - 1995 = **ALS** - one of the earliest & largest LIS specialists

  - 1995 = **FDC** – Amex's IT division comprised of SAI & McAuto

  - 1995 = **Pegasus** – the Smart Medical Record was an early EMR

  - 1996 = **CyCare** – a leading Practice Management vendor in CA

  - 1997 = Amisys, Enterprise Systems and Nat. Health Enhance.

  - 1998 = **Imnet** – imaging precursor to Horizon Patient Folder

MERGER
MANIA
ARBITRAGE:
Wall Street's Best Kept
Money-making Secret

IVAN F. BOESKY

Recapitulation

- My many mergers of mighty MedPro might mentor migraines (mmmm…), so here's a recap of HBO's evolution up to 1990:

McKesson's HIS Products Time-Line
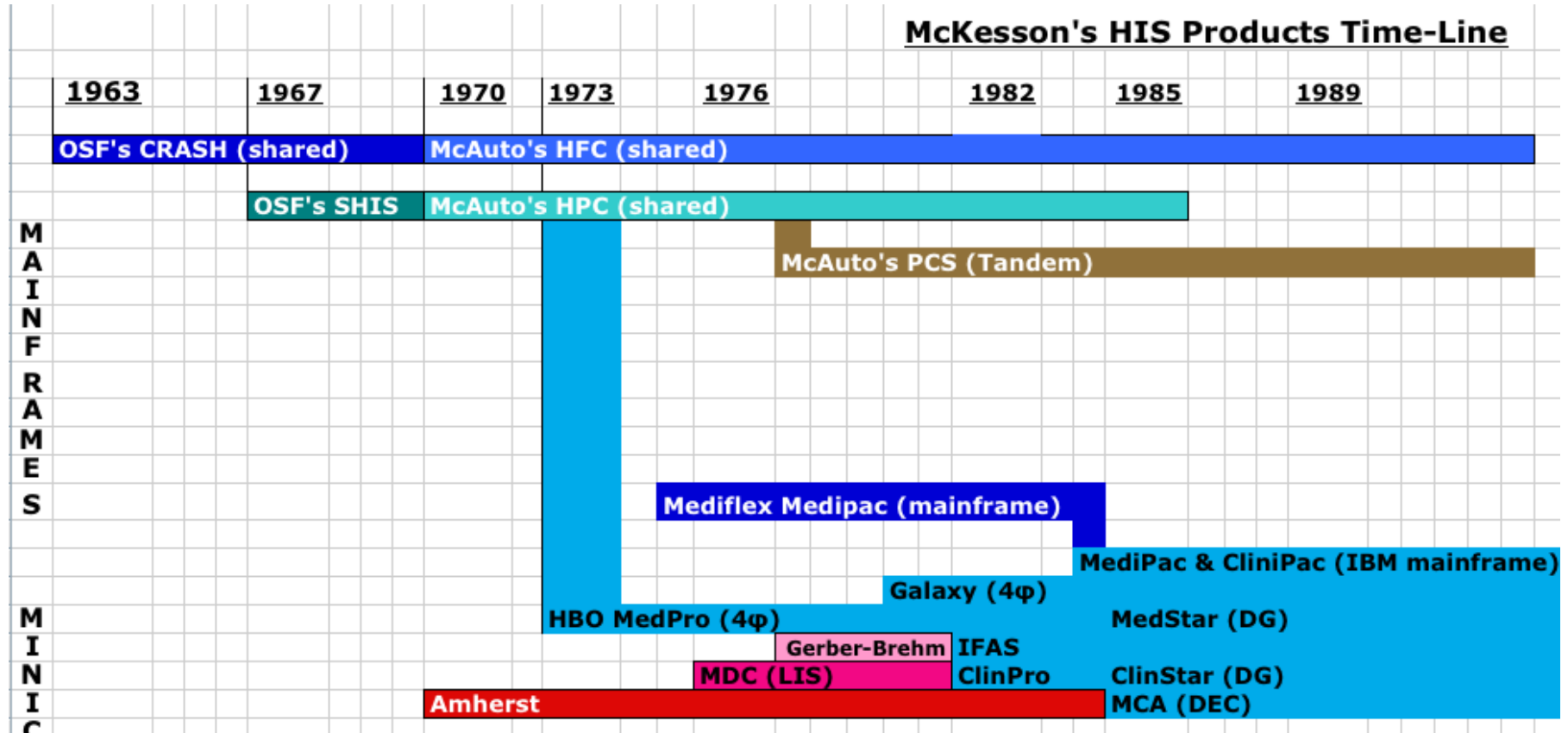
- Next, we cover two mega-mergers in the 1990s that vaulted **HBOC** into the top of the HIS market, ahead of former #1 **SMS**.

HBOC's Product Line in Late 80s

- These ads nicely illustrate how **HBOC** had merged the MDC, Amherst & Medicus systems into their diverse product line by the end of the 1980s.

INTRODUCING MCA—
A MORE PRECISE COST ACCOUNTING TOOL

The Margin For Error In Cost Accounting Has Just Been Reduced.

MEET CLINIPAC. THE MEDIPAC   OF PATIENT CARE SYSTEMS.

Mega-Merger Maven

- Walt Huff retired in 1989, and in his own words: *"Holcomb Green became Chairman, Darrell Young president of HBO (minicomputer division), Robert Murrie President of MEDILEX (IBM/FM), & Larry Gerdes, President of the Equipment Maintenance Subsidiary)."*

- In 1991, Holcomb Green appointed a single president over all 3 subsidiaries, who eventually became chairman: Charlie McCall.

- McCall was no stranger to IT : from 1985 to 1991, he was CEO of CompuServe. He engineered two deals for **HBOC** in the mid-90s that put them in first place in the HIS industry, ahead of **SMS**, former #1 in annual revenue. The first acquisition in 1994:

HBOC prizes IBAX client list in acquisition; Some IBAX staffers will lose jobs in inevitable downsizing

The ink is now dry on a deal in which HBO & Company, Atlanta, acquired IBAX Healthcare Systems of Longwood, Fla. Terms were undisclosed at press time. Following four months of negotiations between HBOC and IBAX parent companies IBM and Baxter International Inc., the purchase was announced April 30 and finalized June 1, according to HBOC sources.

The move gives HBOC an additional base of 475 customers, many of these solid IBM AS/400 users, a product area that HBOC previously lacked. IBAX's midrange business, Series 4000, represents 235 customers running the IBM AS/400-based product. "It's by far the biggest part of our company," said IBAX President and CEO Jeffrey S. Goodman.

"I think IBAX brings to us a new very sizable customer base. That, combined with the customer base that we have today, we think puts us in a very good position for the future to be able to survive and continue to grow and be a leader in this business," said Charles McCall, HBOC president and chief executive officer. "We think we can take our Pathways products into the IBAX base and offer them the health network server and the clinical

"We think we can take our Pathways products into the IBAX [customer] base."

McCall

workstation and the managed-care products that we've designed."

The terms of the deal could not be revealed until the Justice Department had a chance review the acquisition between April 30 and June 1, McCall said. In essence, he said, his $280 million company has acquired a $60 million company. McCall added that HBOC will devote $30 million to research and development during 1994.

The $30 million R&D budget will enhance the Pathways 2000 line, introduced in February at the

See HBOC page 14

IBAX (IBM and Baxter)

- The roots of **IBAX** are also a complicated web of mergers, so hold onto your track-pad as we cover them briefly here (you can view their full episodes on our web site *hispros.com*):
  - 18 = **DCC** (Dynamic Control)
  - 26 & 27 = **JS Data**

  Plus one I did *not* do a episode on: **Stonybrook Systems**, an **IBM** mainframe vendor out of Long Island, who's CEO <u>Frank Russo</u> became **IBAX's** CEO.
- **HBOC's** "official" story on the merger is interesting reading:

Health Information and Management Systems Society's annual conference in Phoenix. McCall said specific development areas will focus on managed care and interface engine development to feed HBOC's clinical data repository product, a new clinical workstation and point-of-care applications.

As to the size of HBOC's R&D budget for 1994, McCall said, "Many of our competitors don't even have that much in total revenue, much less being able to spend that much in R&D. It would be my guess that only SMS is even coming close to spending that much on development."

Some downsizing of IBAX staff is predicted, although McCall would not specify the numbers nor timing involved in possible layoffs. HBOC will attempt to preserve the IBAX customer base and most of the 550 IBAX employees, although some will definitely lose their jobs. Jeffrey Goodman said 300 IBAX employees are based in Longwood, Fla., with 125 in New York and roughly another 125 in multiple field locations.

IBAX was never "on the block," Goodman said. "The company was never put up for sale, it was never brokered, it was never danced around the dance floor."

According to Goodman, at the end of December, HBOC initially approached IBM and Baxter. Negotiations stretched on for four months. "I think it's important to differentiate that [IBAX] was never, ever put up for sale," although there were two other inquiries about the potential sale of the company and some discussions were held, Goodman said. He declined to name the two companies.

Goodman said the sale amounted to a strategic decision. He said IBM/Baxter executives did a lot of "late-night soul searching" discussing whether IBAX customers would be better off with a large, well-financed industry player with perhaps more momentum.

"And then we had to look into their eyes and make sure that they were, for lack of a better word, good guys. Nice people. Honorable people.

"Many of our competitors don't even have that much in total revenue, much less being able to spend that much in R&D. It would be my guess that only SMS is even coming close to spending that much on development."

— Charles McCall

And when we went through that, we decided that they were," Goodman said.

Jeff Goodman won't be going to work for HBOC, though. "My job is going to be gone, so I'm going to have to go look for a job."

HBOC has no plans to "sunset" the IBAX line, said James Gilbert, HBOC's general counsel appointed to head the transition team as the Atlanta-based company integrates IBAX products and services into its existing business. "I think our strategy here is to keep the management as much in place as we can, and to keep the customers' core systems that they've already bought alive and well and sell them the Pathways stuff . . . that we all believe they're going to need over the next five years, and not try and walk in there with a conversion strategy and a sunsetting strategy," Gilbert explained. "I mean, we're just not going to do that. That doesn't work, and that isn't our plan, and truthfully, we'd like to protect their old investment."

The overall tactic is to preserve the IBAX customer base and maintain its Series 3000, 4000 and 5000 product lines, although the IBAX "division" will soon have a different name. HBOC's well-developed practice of selling new products to its existing clients will carry over to the IBAX customers, according to McCall and Gilbert. The newly purchased IBAX base will become fertile territory for selling HBOC's new Pathways 2000 product line.

Gilbert added, "We've got a whole bunch of new stuff we'd love to sell them and that we think they need." McCall cited the consolidation of the industry, both from the I/S vendor side and the health-care provider side, as reasons driving acquisitions like HBOC/IBAX.

McCall added, "We are jointly developing with a customer of ours on the west coast an enterprise-wide registration system. And we have been looking at the possibility of either building or acquiring something in the enterprise-wide scheduling area."

— Carolyn Dunbar, Editor

"I Hoid It Through The Grapevine…"

Rumors Quelled At Baxter Systems Division

by Bill W. Childs

- If you put these slides on full-screen display (and you're not trying reading this on a tiny iPhone…), Jeff Goodman's inside tale is echoed here in a great interview by Bill Childs of **IBAX's** CEO Frank Russo about acquisition rumors in 1989.

- The take-way for today if you're embarking on a system search?
  - *Even CEOs* don't know when their Boards are being approached for takeovers,
  - So look at the **product** a lot more than the **company!**

Sibling Rivalry?

- This acquisition was somewhat challenging in that **IBAX** was a major competitor to **HBOC** in all three hospital market segments:

  - <u>Large</u> (≈300 beds and up) – which usually considered **IBM** mainframe systems like **IBAX's** Omega (**IBM** PCS/ADS-based mainframe system, later re-named Series 5000 when **Baxter** became **IBAX**) vs. **HBOC's** Medipac (from **Medicus**/**Mediflex**).

  - <u>Medium</u> (100 to 300 beds) – which often compared **HBOC's** ClinStar and Star Financials (by now running on DG minis) to **IBAX's** Delta (DCC on AS/400s, later re-named Series 3000).

  - <u>Small</u> (under 100 beds) – which generally included in their searches **IBAX's** Alpha (JS Data, later re-named Series 2000) vs. **HBOC's** Galaxy (still on 4φ minis, eventually sunset…).

- So what would *you* do if you were **HBOC** and you inherited these three competing systems and had to pick one to answer an RFP?

Banana Fanna Fo Farley…

- Why, *re-name* them of course! The first step in any acquisition is to "integrate" all the ads, brochures, PowerPoints and proposals with new names for the many products on diverse platforms, and **HBOC** followed this marketing rule assiduously as follows:
  - Series 5000 joined MediPac and CliniPac, and even the NSA's 2013 sleuths might not figure out just which COBOL/VSAM/MVS code came from where over subsequent releases…
  - Series 4000 (DCC) and 3000 (JS Data) were similarly merged into a single systems called "Series," probably containing more of DCC's RPG code than JS Data's, although again who knows?
- Series still run in *hundreds* of hospitals today, although mostly its financial apps as its clinical system can hardly be "meaningfully used." MediPac & CliniPac eventually became HealthQuest, which became "HERM" before the sun set on that part of the horizon…

1991 *Paragon* Ad?

- Anyone who follows **McKesson** today should get a good laugh at this ad from *1991* that illustrates how marketers are sometimes many years ahead of the programmers in development…

- It seems **HBOC** tried the name "Paragon" for their "MCA" EIS and Cost Accounting systems, which they had acquired from **Amherst** & **Medicus**. The name never stuck, but was "re-cycled" in the late 90s when today's Paragon HIS system was born…

HBO's Got Everything...

...For The Well-Connected Hospital Executive.

HBO has a whole new way of connecting your hospital. We call it Information Access Architecture (IAA). Healthcare information systems that tie everything together, giving you real-time status about clinical, financial and administrative operations. Our PARAGON™ executive information system, built under IAA, gives you updates on key hospital performance measures. In colorful, easy-to-understand graphs and charts—with trends highlighted and exceptions flagged. We teach the system to think like an executive, so you don't have to think like a computer. And with Digital Equipment Corporation as the hardware supplier, you get the best of two worlds: computer hardware from an industry leader, and tailored software and services from an application specialist.

Our newest release of CLINSTAR®, STAR Financials™ and TRENDSTAR® gives you the latest in financial, clinical, patient care and decision support systems. And our local and wide area networks can even connect you to satellite offices, outpatient facilities and other remote locations.

Most important, they're connections you can count on—allowing you to tap into data throughout your healthcare enterprise. Now, making the right connections is easier than ever before.

HBO&Company
For The Well-Connected Hospital
901 Perimeter Center North, Atlanta, Georgia 30346 (404) 393-6000

digital™ Authorized Solution Provider

Circle Reader Service No. 11

Next Week…

- We'll cover the second of Charlie's mega-merges that put HBOC at the top of the HIS industry, this one involving one of *smallest* HIS vendors that targeted mainly small hospitals under 100 beds, and two of the *largest* firms in corporate America who both tried and eventually failed to be as big in HIS as they were in other fields. In visual symbols & algebraic notation, the story goes like this:

 + **>** **,**

but < **!**

- Stay tuned for the gory details, and if you were an insider within these firms during the halcyon 1990s, gimmee a call or email:

    - 505/466-4958   *vciotti@hispros.com*

H.I.S.-tory

by Vince Ciotti

Episode #117:

McKesson

Part 6 = AMEX

AMERICAN EXPRESS
INFORMATION
SERVICES

Health Systems Group

Dear Health Systems Group Customer:

In April of this year, Systems Associates, Inc. and McDonnell Douglas Health Systems Company joined forces to become the leading healthcare information management provider.

As part of the new American Express Information Services Company, we're out to change the face of healthcare information management by providing you with better, more cost effective solutions.

Although we've been successful in the past, we're not going to rest on our laurels. Our continued success depends on yours.

In return for your confidence in us, we pledge to:

■ Give you full service . . . not lip service.

■ Give you solutions . . . not just "sizzle".

■ Provide you with more value for your dollar.

In short, our focus is on meeting your information management needs efficiently and cost effectively through strategic quality management. Please let me know how we're doing.

Sincerely,

Larry R. Ferguson
President

Recapitulation

- The acquisition of **IBAX** in 1994 greatly expanded (complicated?) **HBOC's** product line, as illustrated in the time line below:

McKesson's HIS Products Time-Line
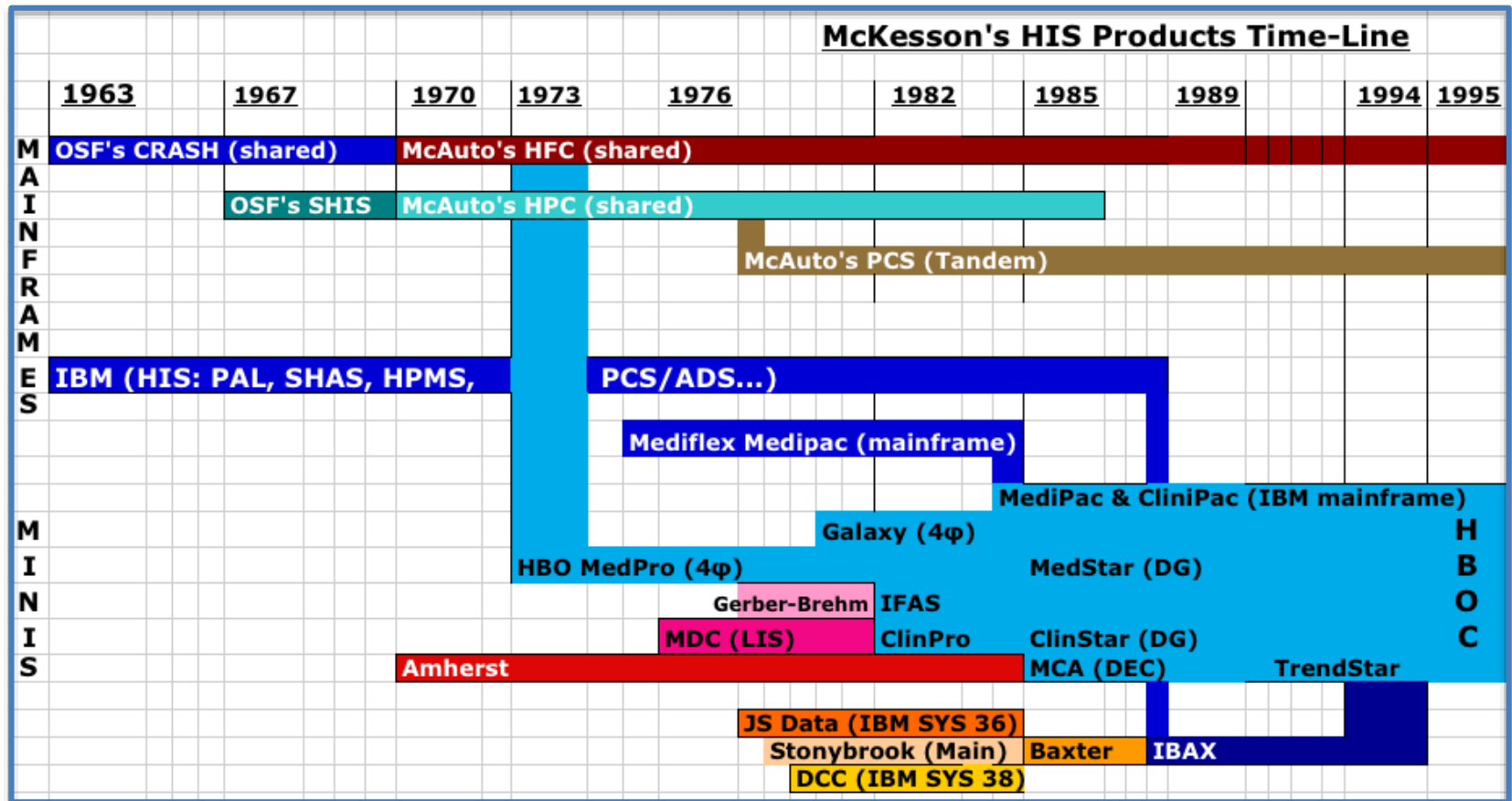
- The second deal a year later added even *more* products, and vaulted **HBOC** into the top of the HIS market in annual revenue.

HIS Vendor Revenue in the 1980s

- **HBOC** had grown well in the 1980 through indigenous products, but as the chart below shows, they had a long way to go to catch up with #1 **SMS**, and yet stay ahead of #3 **AMEX** and #4 **IBAX**…

1980s HIS Vendor Revenue ($s in 000's)
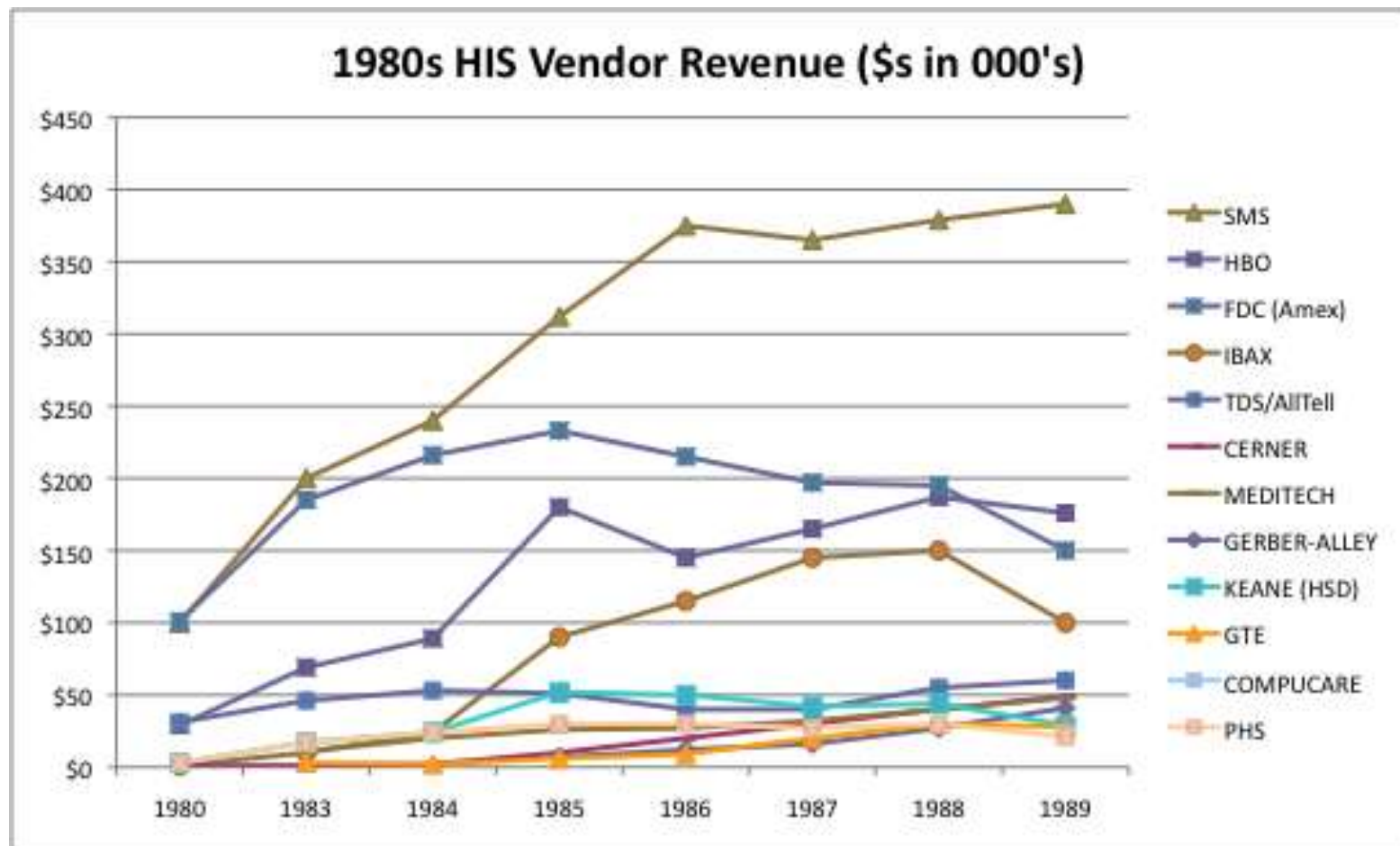
If You Can't Beat 'Em…

- New CEO <u>Charlie McCall</u> was just warming up with the acquisition of **IBAX** in 1994. A year later, he pulled a second coup by buying a 2nd major competitor with large revenue & client base: **AMEX**!

- And just what does a monster credit card company have to do with the HIS industry? Well, like so many giants over HIS-tory, they *bought* their way into the business figuring IT and healthcare are an unbeatable combination to make money, just like:

  - <u>Revlon</u> buying **TDS**

  - <u>McAuto</u> buying **CRASH**

  - <u>Tymshare</u> buying **MDS**

  - <u>GE</u> buying **IDX**

  - <u>AllTel</u> buying **TDS**

  - <u>Baxter</u> buying **DCC/JS Data**

  This 1989 ad sums it up well:

There's Safety In Numbers.

Ninety-two percent of the hospitals who have had the SAINT since 1974 are still active customers.

One-third of SAI's employees are involved in the ongoing support and development of the SAINT system. This support staff is available 24 hours a day, 7 days a week to answer questions, help work out problems or do repair work. And because our entire mini-based turnkey system was designed and developed by SAI, you only have to make one call to get the answers to your hardware or software questions. So you see, we're dedicated and efficient. But most of all, we're there when you need us.

We've Got American Express To Back Us Up.

A Saint Among Vendors…

- **AMEX** started its foray into HIS acquiring Systems Associates, Inc. (SAI), formed originally by John Weil in the 1970s (see episode #20 at *hispros.com*). **SAI's** "SAINT" system ran on Point Four minis in about 300 small client hospitals, mostly under 100 beds.

Minnow Swallows Whale

- As this table from <u>Sheldon Dorenfest</u>'s Guide attests, **McAuto** 3rd in annual revenue in the mid 1980s, with $200M, right behind leaders **IBM** and **SMS**.

- Look way down the list, and you can barely make out SAI in *15th place* with a paltry $33M in revenue.

- Sadly, **McAuto** only shrunk over time, with their 1987 revenue down to $165M, and Mac's HSD division was soon put up for sale.

GROWTH IN SALES OF COMPANIES WITH OVER $10 MILLION IN SALES IN 1985

Vendor	1983	1984	1985	% Growth 1983-85
IBM	$ 560.0	$ 700.0	$ 825.0	47.3%
SMS	200.0	240.0	290.0	45.0%
McDonnell Douglas	165.0	185.0	200.0	21.2%
HBO & Company	69.0	89.0	180.0	160.9%
Digital Equipment Corp.	90.0	110.0	140.0	55.6%
Data General Corp.	55.0	75.0	100.0	81.8%
Travenol	10.0	24.0	90.0	800.0%
Burroughs	65.0	74.0	82.0	26.2%
NCR	65.0	70.0	75.0	15.4%
Technicon Data Systems Corp.	46.0	53.0	51.0	10.9%
Hewlett Packard	26.0	40.0	50.0	92.3%
Honeywell Information Systems	35.0	36.0	40.0	14.3%
Sperry Corp.	35.0	40.0	40.0	14.3%
Control Data Corp.	25.0	30.0	35.0	40.0%
Systems Associates, Inc.	20.0	31.0	33.0	65.0%
American Medical International	17.0	24.0	30.0	76.5%
Four Phase Systems, Inc.	50.0	40.0	30.0	(40.0%)
Tandem Computers	23.0	24.0	28.0	21.7%
Pentamation Enterprises	11.0	13.0	22.0	100.0%
Meditech	11.0	15.0	20.0	81.8%
Community Health Computing	12.0	15.0	17.0	41.7%
CPHA	12.0	14.0	15.0	25.0%
Electronic Data Systems	17.0	15.0	15.0	(11.8%)
Prime Computers, Inc.	9.0	12.0	15.0	66.7%
Keane, Inc.	9.0	11.0	13.0	44.4%
Continental Healthcare Systems	3.0	9.0	12.0	300.0%
GE Information Systems	9.0	11.0	12.0	33.3%
Datacare, Inc.	6.0	7.5	11.0	83.3%
Code 3, Division of 3M Corp.	8.0	10.0	10.0	25.0%
TOTAL	$1,663.0	$2,017.5	$2,481.0	49.2%

Honestly…

- Compared to all of the denials from **IBAX** about their ever being on the market, **McAuto** was amazingly "open" about their status in this 1988 ad. We've never seen such openness in HIS since…

- Thanks to **AMEX's** deep pockets, **SAI** bought **McAuto's** HSD division, on April 1, 1989 (that's no April Fool's joke!). **McAuto's** St. Louis operations brought over a thousand clients and 1,100 employees to SAI, whose ≈300 FTEs stayed in their Charlotte HQ offices.

Why Make A Decision for McDonnell Douglas Today, Now That We Have Announced Our Health Systems Company Is For Sale?

For Two Good Reasons:
Both Good For You & For The Industry We Serve

1. SAME PEOPLE, SAME PRODUCTS, SAME SERVICE. When you buy from a company, you buy its products and people and the capability of both to perform for you. If McDonnell

Mark Kuhlmann

Douglas' Health Systems organization was your choice before the announcement, it is an even better choice today! Why? Because you no doubt chose us for our products and our people as the best alternative, among all the potential vendors, for your hospital. Neither has changed by the announcement of the sale.

Today, potential buyers contacting us will want you as a customer, and perhaps more importantly, they will have an overwhelming interest in keeping you, as well as our more than 1,000 other customers, satisfied.

2. RENEWED COMMITMENT TO EVEN BETTER SERVICE AND PRODUCTS. New ownership will mean a renewed commitment…commitment from an owner with a future tied to our customers, our products, and our people. The new owner will want to retain leadership in Healthcare Information Systems. And, continued leadership will mean a commitment to increased and productive research and development, to new products, to meet new needs, and to a continuation of the service upon which our organization has been based.

If your institution chose McDonnell Douglas before the announcement…it was the right choice! And, if you are considering us today, we are still the right choice!

Mark

F.M. Kuhlmann, President
McDonnell Douglas Health Systems Co.

McDonnell Douglas Health Systems. Better today than yesterday…Better tomorrow than today!

MCDONNELL DOUGLAS

Saint + and ++

- The combined firms did fairly well over the next few years, although **McAuto's** confusing product line of competing shared and mini-based systems sold far less than **SAI**, who morphed the Saint product into SAINT/*Plus*, then SAINT *Express* in the 90s, before the next big deal...

SAINT/Plus
The Finest Hospital Information System

Systems Associates, Inc.
Charlotte, N.C.
704/333-1276

Second Mega-Merger

- **AMEX** formed an IT subsidiary entitled First Data Corporation (FDC), and **SAI** and **McAuto** became their Health Systems Group.

- In June of 1995, **HBOC** did it's second mega-merge in as many years, acquiring FDC's HSG to add to its burgeoning product line. Like most **HBOC** acquisitions, it was technically a stock deal, whereby **AMEX** received 2,000,000 shares of **HBOC** stock, at the time, valued at about $200M. That's *twice* what **AMEX** paid for **SAI** & **McAuto** (so why are their annual fees so high today?).

- HSG became a separate subsidiary under **HBOC** VP James Gilbert. Chuck Miller of **McAuto** ran day-to-day operations of the new business entity, which had gradually moved its data center and key employees from St. Louis to **SAI's** Charlotte. Total # of clients and FTEs had dropped precipitously by 1995 to "only" 500 out of a peak of about 1,300 when **SAI** (with 300) bought **McAuto** (with ≈1,000). So now you know why **McKesson** has *two* major offices: Charlotte with the **SAI**/**McAuto** products and HQ in Atlanta .

Irony...

- <u>Walt Huff</u>'s graciously sent this picture scanned by his wife (you don't expect we old folks to master new technology do you?)

- It's a wonderful tribute <u>Bill Child's</u> "Computers in Healthcare" paid to the founders of pioneering HIS CEOs. How ironic for <u>Chuck Barlow</u>, who acquired CRASH & SHIS from OSF in 1970, to stand next to Walt, whose **HBOC** had acquired **McAuto** in return in 1995!

Computers in Healthcare **Pioneer Awards**

10

Ten Year Anniversary Celebration

From left to right, Melville H. Hodge, Charles M. Barlow, R. James Macaleer, Walter S. Huff, Jr., John Whitehead (accepting for his father, Edwin C. Whitehead).

Seven healthcare computing industry leaders were recognized for their outstanding contributions to the development and growth of information systems in the healthcare sector. These leaders were designated "Healthcare Pioneers" at the first annual *Computers in Healthcare* Pioneer Awards ceremony in Atlanta May 17. The ceremony was held in connection with the *Computers in Healthcare* Conference and Exposition at the magazine's tenth anniversary celebration dinner.

Melville H. Hodge, healthcare systems consultant and authority who has appeared before Congress as an expert in computer systems, is the former presi-

G. Octo Barnett, M.D.   Homer R. Warner, M.D.

dent and chief executive officer of Technicon Data Systems, now TDS Healthcare Systems Corporation. His involvement with the TDS system dates back to his role as assistant director of information systems for Lockheed Mis-

siles and Space company in 1965, when he played a vital part in the initial design of the system.

The founder of McDonnell Douglas Health Systems Company, **Charles M. Barlow**, spearheaded that company's entry into the healthcare information systems market and was the founding father of the corporation's Health Services Division. He presided over the division as it evolved into one of the major suppliers of information systems to hospitals. Barlow led the company until his retirement in 1986.

R. James Macaleer, chairman of the board of Shared Medical Systems (SMS)

(continued on page 18)

July 1990

HIS Vendor Revenue by 1999

- The acquisitions of **IBAX** and **AMEX** vaulted **HBOC** to the ***top*** of vendor annual revenue figures by 1999 as the chart below illustrates, a position they have never given up since…

20 Year Annual Revenue HIS-tory ($s in 000's)

Next Week

- Charlie McCall consummated over a dozen more "minor" mergers during the second half of the 1990s - we'll cover only the biggees next week. Here's how **HBOC's** product line has evolved to date:

McKesson's HIS Products Time-Line

H.I.S.-tory

by Vince Ciotti

Episode #118:

McKesson

Part 7 = CyCare

(Seated) Scott Waldrop, VP Hospital Division, (Standing, from left) Larry Benton & John Henson – Hospital Sales, Dave McClellan – Hospital Services

Recapitulation

- The last 2 episodes covered the biggest of <u>Charlie McCall's</u> many acquisitions that vaulted HBOC to the top of HIS vendors in terms of annual revenue and product line breadth, illustrated below:

McKesson's HIS Products Time-Line

Two More Big Ones…
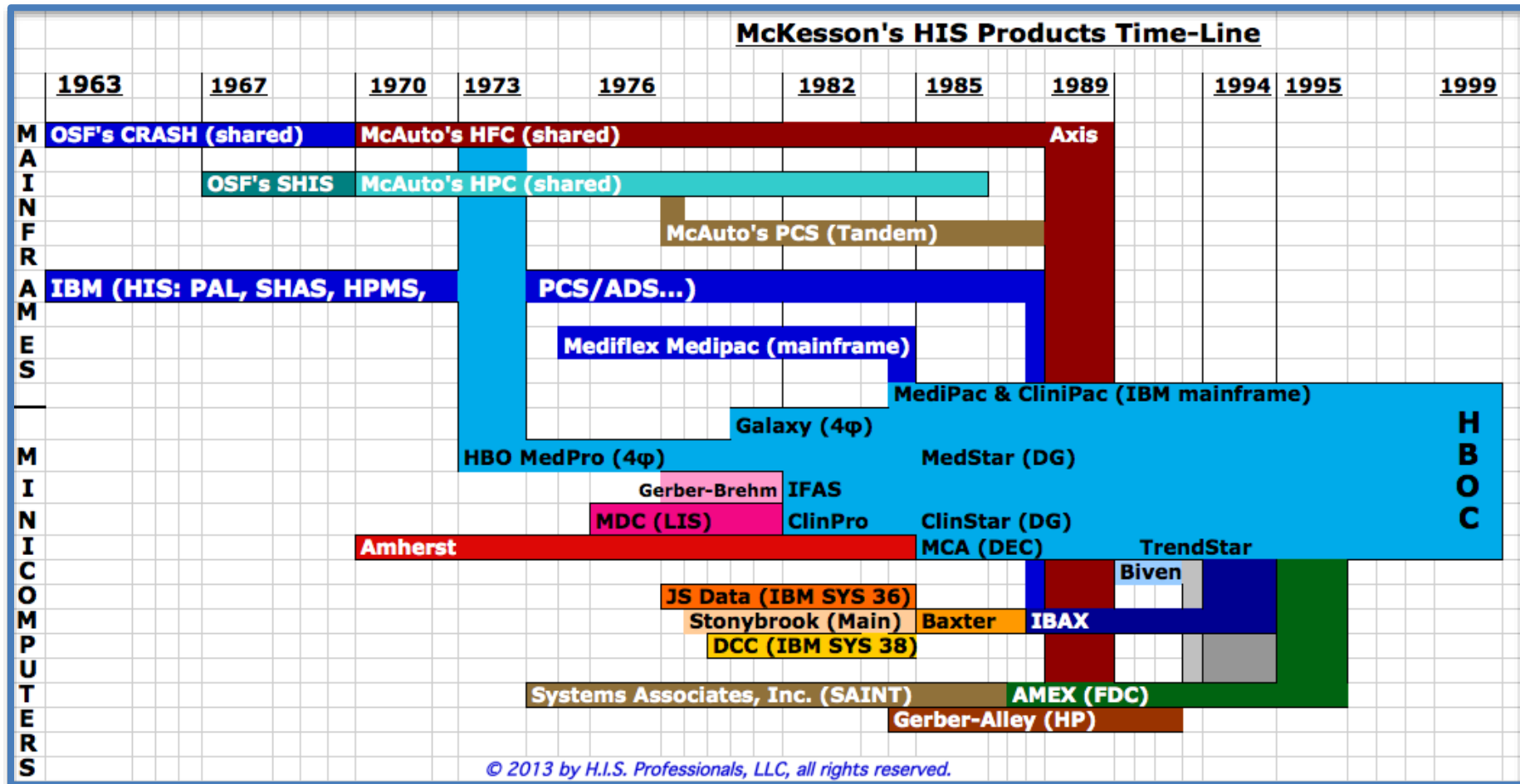
- Right after the **AMEX** and **FDC** deals, Charlie scored 2 more huge acquisitions that made HBOC a player in 2 new markets:
  - **Physician Billing** – known today as Practice Management Info. Systems (I use the acronym PM**I**S to avoid the giggles about PMS…), which had been dominated by giants like **IDS** & **CyCare** for shared systems, and **Medical Manager** for PC-based systems, offering reg., sched. and 1500 billing.
  - **Bedside Systems** – which had taken off enormously with pioneers like Ralph Korpman's (whose **MDC** LIS **HBO** had acquired in 1981) **UltiCare**, **Micro HealthSystems**' MedTake (whose President Jim Pesce runs McKesson's enterprise systems today), and Peter Gombrich's **CliniCom**, which had started as a "partner" of **HBO** in the mid-80s, and later signed a bedside "teaming" agreement with them in 1993.

Complex Beginnings Itself…

- This episode covers **CyCare, HBOC's** first target, itself being a complex HIS-tory told best by one of its early employees still who is still working at McKesson after all these years:

    – *"From: Parypinski, Jeff   (Jeff.Parypinski@McKesson.com)*

    – *To: Vince Ciotti   (vciotti@hispros.com)*

    – *Subject: Enjoying your McKesson history*

    – *In your coming attraction slide on HBOC, you mention the 1996 acquisition of CyCare Systems and refer to the company as being from CA. I was at CyCare in 1996 when we were acquired (starting there in '85 when CyCare acquired MSWI -where I had started as a college recruit in '79) by HBOC and participated on the diligence team. CyCare was founded in Dubuque, Iowa and was largely based there even after establishing corporate headquarters in Phoenix, AZ in the late 80's (founder & CEO Jim Houtz moved out there). A couple years before CyCare acquired MSWI, which had acquired competitor MCSI of Dallas. The Dubuque operation remains a part of McKesson, housing practice management development, support and some ops for RelayHealth."*

CyCare's Roots

- Now that Jeff set the story straight about **CyCare's** *Iowa* location, check out these details from the Dubuque online encyclopedia (it's just amazing what you can find online these days!):

    " CYCARE SYSTEMS, INC. - North America's leading provider of data management systems to medical groups and health care organizations. Founded in 1967 by <u>James HOUTZ</u>, *CYCARE's first commercial account was the* **Ertl Toy Company** *of Dyersville, Iowa. Within one year CYCARE had entered into contracts with Medical Associates and the* **Dupaco Credit Union"**

- (VC: *non*-healthcare roots just like **Meditech**, **Epic**, **Dairyland**…)

    "In 1970 the decision was made to concentrate market strategy on the national medical community. The company's client list grew from 10 clinics in 1972 to 35 in 1973. In 1981 CYCARE, by then an international provider of computer systems, went public and sold stock. In the fall of 1986 CYCARE purchased the landmark **Dubuque Building"** (pictured above) *"for $5.7 million."*

CyCare's Acquisitions

- **HBOC** had no monopoly on acquisitions – as Jeff continues:

  – *"The story I heard was that <u>Jim Houtz</u> was working for IBM and leveraged IBM stock he had acquired to launch CyCare. CyCare would go public in the 80's with an IPO. I believe shortly before acquiring MSWI in 85 and leveraged the cash from the IPO to buy them and MCSI…*

  – *MSWI was formed by <u>Tom Roovers</u> circa '72-73. Employers Insurance of Wausau (later Nationwide) acquired it in the mid 70's with the idea that the medical billing and claims processing would provide tons of useful data (no HIPAA yet), and also leverage the horsepower of their IBM mainframes when not doing work for the insurance company. Wausau named it Management Systems and Services Division (MSSD) and then in 1980 incorporated the business as Management Systems of Wausau, Inc. (MSWI). MSWI acquired MCSI in '82. Both companies had services bureau offerings (in Wausau and Dallas respectively) but MCSI also had an "in-house" system running on a 'mini' which MSWI needed as the market was shifting away from Service Bureau to in-house technologies. MSWI called its service bureau offering WCS (Wausau Clinic System). MSWI had Rx1 (batch), Rx2 (services bureau) and Rx3 (in-house)."*

Technical details…

- Writing a history is a very humbling experience as you learn just how much you ***don't*** know! More technical details from Jeff:

  – *"IBM 4300 mainframes in Wausau were connected to medical groups via T1 lines, giant modems, telex type machines for data entry – which gave way to CRT's. No hardware to buy. Monthly fee for terminals, lines and data processing based on patient volumes, transactions, statements, claims, reports. Applications were a la carte. 100% recurring revenue model. Sounds like SaaS to me today.*

  – *When CyCare acquired MSWI in 1985, they canned the in-house offering as CyCare had the C100 (Wang) for small to mid-size groups and the C250 and C35O for large groups. The CyCare products offered distributed processing – an in-house system with remote printing and distribution in Dubuque of statements, claims and reports. CyCare renamed WCS "C74" (I need to try and remember where the 74 came from). The Wausau operation remained open into the 90's supporting the C74 customer base. It was closed in mid 90's and operations moved to Dubuque."*

EDI Pioneers!

- *"CyCare offered distributed processing on the C250 and C350 on Honeywell gear with distributed processing for claims and statements produced in Dubuque, at the time the largest data center in Iowa. So CyCare sold a box, software & software maintenance, and also receive monthly revenue for remote printing and distribution of patient statements and claims.*

- *The biggest value MSWI brought to CyCare was the early development (I believe the leading developer) of electronic claims submission and payment for doctors offices. Because of the service bureau type processing, MSWI had critical mass of claim volumes with each carrier.*

- *I remember a meeting in 1980 with EDS in Des Plaines, IL, who was the adjudicator of Medicare claims there, where we proposed shipping a large reel tape once a week with all our clients' Medicare submissions. More such 'electronic' deals followed (though most involved shipping: on more than one occasion I drove the tape from Wausau to Chicago!). Claim submission exploded. The reason I think I was at that momentous meeting was because the MSWI principles flew down to Chicago; I was based in Chicago and was able to pick them up at O'Hare and drive them to the meeting. After all, I was only 22 and an implementation consultant."*

Adding An HIS

- In 1987, **CyCare** celebrated its 20th anniversary by adding an **IBM** mainframe-based HIS to its product line up. The Hospital Division team led by VP <u>Scott Waldrop</u> was featured on the opening slide.

- The HIS was developed under a contact with **IBM** at Carraway Methodist Medical Center in Birmingham, AL. Scott was the MIS Director there during the system's development. It was *not* based on **IBM's** PCS-ADS, but rather had its own "engine" and a profile-driven structure.

(L to R): John Henson, Scott Waldrop and Larry Benton of CyCare's Hospital Division.

- The HIS didn't sell that well, but **CyCare** claimed 30% of the PMIS market by 1987, with over 1,700 clients (a mix of single physicians, group practices, and HMOs), and 1,000 employees in 17 offices around the country. By 1995, they had become quite a lucrative target...

Prophetic Ad!

- The text of this ironic HIS ad is enlarged on left for easier reading:

You have to link-up to survive today.

Getting to the top means making the best use of your resources and securing new lines of support.

The CyCare® 1000 is your best route for success. It's the IBM® mainframe-based hospital system that integrates patient care, patient accounting and medical records.

It lets you quickly move in any direction... from adjusting information flow to adding ongoing enhancements.

Proven over the past eight years, our C1000 also helps control labor costs by allowing more efficient personnel management.

Plus, it helps you get a toehold on new referrals and revenues through networking. CyCare is the nation's market leader in ambulatory care systems and over 1,500 health care organizations use them. No wonder we offer you the best network connection with those outside sources.

Write or call for details and tie into what you need.
Phone (319) 556-3131.

Gulp!

- On August 23, 1996, **HBOC** "linked up" **CyCare** in another complex stock swap deal, exchanging .43 of a share of HBOC stock for each of CyCare's ≈5M shares. HBOC's stock was trading around $120 per share back then so it was quite a big deal in financial terms as well as market share. By 1995, **CyCare's** annual revenue was $63M, and they claimed about 5,000 clients (including many EDI). By 1995, **HBOC** had ≈$600M in annual revenue, from 2,200 US hospitals (out of 5,300 total back then – it's below 5K today…) and another 500 international clients.

- Only *one month later*, **HBOC** gobbled up two more HIS vendors:
  - **MSI** – a leading Home Health Care vendor based on Missouri. McKesson still runs **MSI** as its "Horizon Homecare" today…
  - **GMIS** – a Pennsylvania-based vendor of data quality and decision support systems, subsumed into **HBOC's** TrendStar.

Product Line to Date

- So here's **HBOC's** product line with the acquisition of **CyCare**. Next, we'll cover their foray into the bedside (pun intended)…

McKesson's HIS Products Time-Line
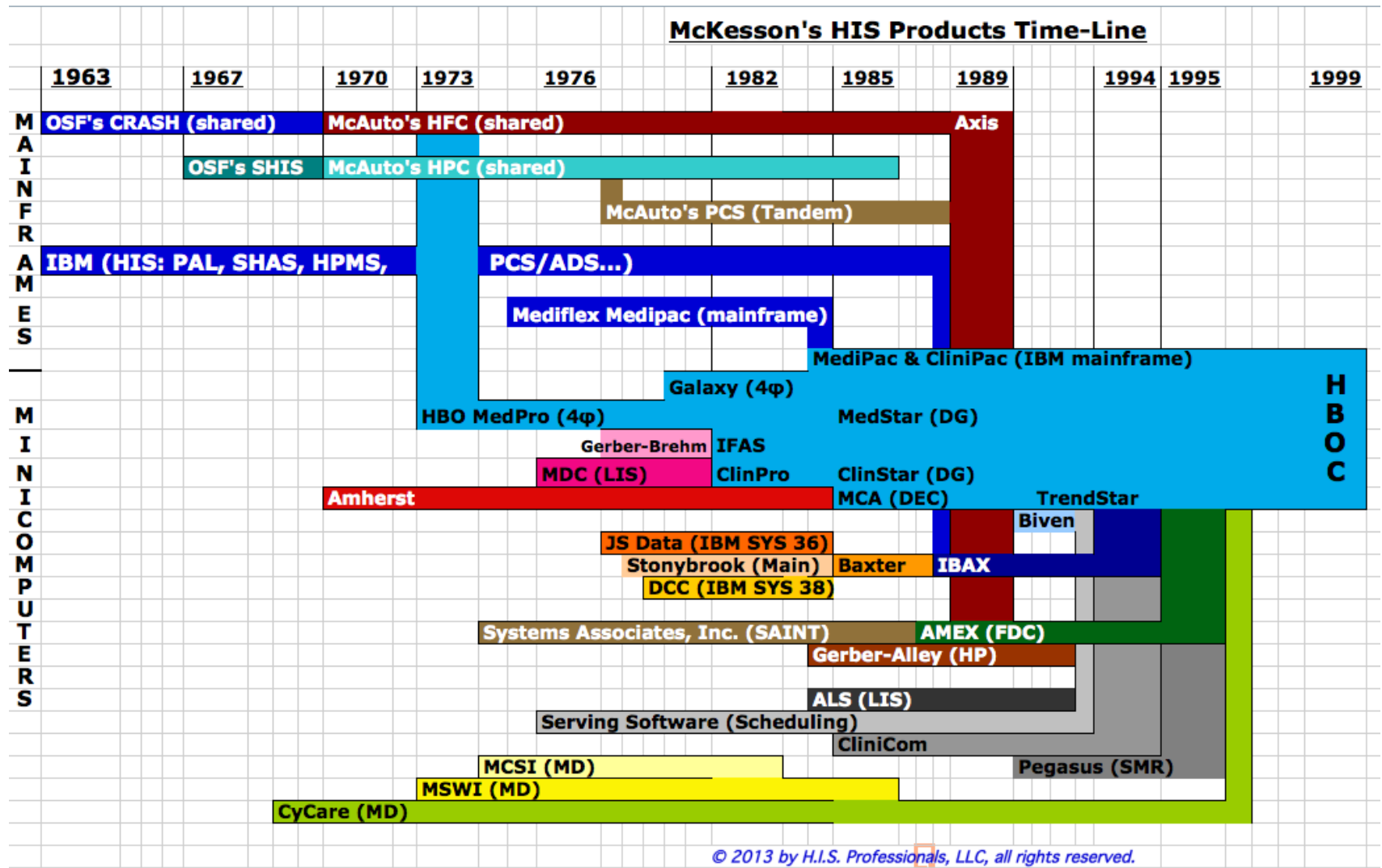
H.I.S.-tory by Vince Ciotti

Episode #120:

McKesson Part 8 = *The* Deal!
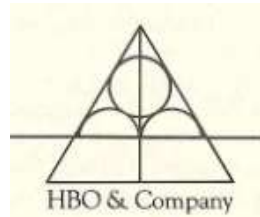
Deals to Date

- Below is a visual recap of the dozens of HBOC deals to date:

McKesson's HIS Products Time-Line
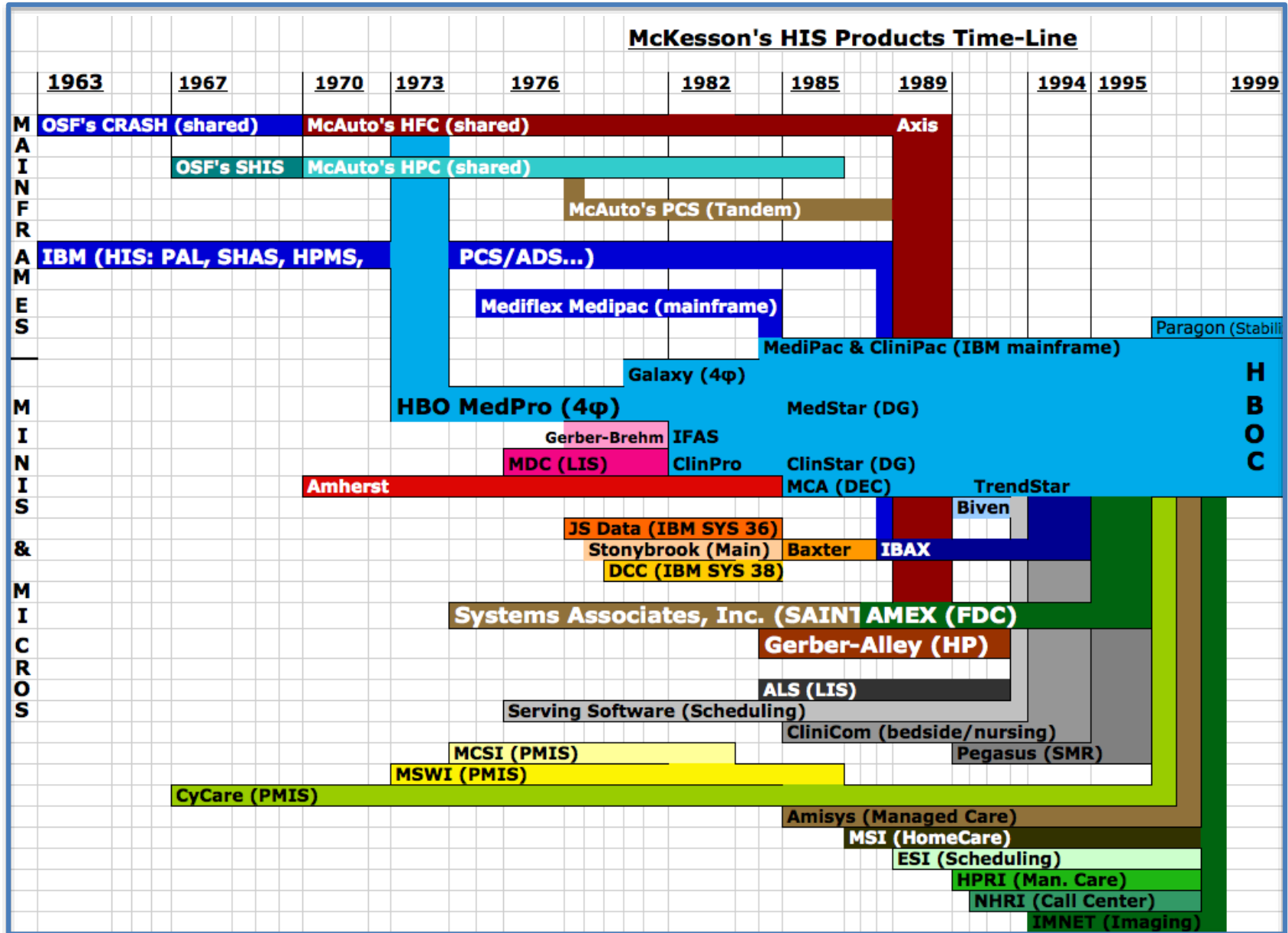
The Biggest Deal in HIS-tory!

- We've covered scores of mergers & acquisitions (M & As) during these 100+ HIS-tory episodes, but the next one involving **HBOC** was easily the biggest & "baddest" acquisition in our industry.

- Some of the other big M & As include:

  - **Siemens** acquiring **SMS** for ≈$2.1B

  - **Allscripts** buying **Eclipsys** for $1.35B

  - **NTT Data** acquiring **Keane** for $1.2B

  - **GE** buying **IDX** for $1.2B

- Indeed, **HBOC** had already spent a ton:

  - CliniCom came in about $190M

  - FDC (Amex/SAI/Mac) cost $125M

  - IBAX was a bargain at only $45M…

- So the **$14.5B** deal between **McKesson** and **HBOC** set a hew high in financial terms, and a new low in moral & human terms…

McKesson buys HBOC

October 19, 1998: 11:00 a.m. ET

Health-care supply company pays $14.5 billion for HBOC, Wall Street frowns

Role Reversal

- As an indication of just how big **HBOC's** appetite for acquisitions had become by 1998, in July of that year, the two firms began discussion of a potential deal that would have seen HBOC (annual revenue of ≈$1.5B) *acquiring* **McKesson** (≈$20B in revenue)!?

Week in healthcare

McKesson-HBOC deal off
By John Morrissey

Talks have ended on a merger that was never disclosed

The healthcare industry's largest drug and medical-supply company and its largest information services company broke the news last week that they had broken off merger talks—which had never been disclosed.

The three weeks of discussions began when McKesson Corp.'s chief executive officer, Mark Pulido, approached HBO & Co. CEO Charlie McCall about combining the two publicly traded healthcare suppliers, said Monika Brown, a spokeswoman for HBO & Co.

when CIBC Oppenheimer healthcare analyst Benjamin Rooks started picking up the news. "And I said, 'That doesn't make sense—that's apples and screwdrivers,'" he said.

"I find it kind of scary, and I'm not alone," Rooks said about the fit between two very different core businesses. "I'm wondering what they were thinking."

Atlanta-based HBO & Co. became the industry's first billion-dollar healthcare software company last year, but its $1.2 bil-

trading of common stock is the current share price multiplied by the number of shares outstanding.

Initially the merger was weighed as an opportunity to share McKesson's vast information trove in such areas as pharmaceutical prescribing patterns and patients' prescription compliance, Brown said.

Eventually, HBO & Co. could have added to its lineup of services using information systems to "take waste out of the supply chain," she said.

But for undisclosed reasons, the pluses did not add up to a deal, she said.

- Word of that deal leaked out ending the talks, causing **HBOC's** stock to tank 22% in 2 days. **HBOC's** weakened stock price caused the roles to be reversed in subsequent talks, which this time were kept under wraps.

- The companies announced their definitive "merger" agreement on Oct. 18 under which <u>Charlie McCall</u> would become Chairman of the new McKesson/HBOC, with **McKesson's** <u>Mark Pulido</u> as the the President & CEO.

Birth of an HIS Giant

- The combined firms had an enormous client base:
  - **HBOC** had 2,800 hospitals on its many diverse systems
  - **McKesson** sold drugs & supplies to over 2,200 US hospitals.
- The two also sold to 25,000 retail pharmacies, 35,000 physician practices, 10,000 extended care sites, 600 payors, 450 drug manufacturers and 2,000 medical-surgical manufacturers
- It truly was an industry facelift:

The Unraveling Begins

- Initial reaction from Wall Street was surprisingly cool, with **HBOC's** stock off 3.5 on NASDAQ, down to 26 & 1/8, while McKesson's remained flat at 88 & 11/16 on the Big Board. Meh...

- In April, 1999, a routine audit turned up major problems - see right:

- When word leaked that **McKesson/HBOC** had to reinstate earnings, its stock plummeted 50%...

- And just who had been **HBOC's** audit firm?

  - Just think Enron A

    A little bit later...

MCKESSONHBOC REVISES REVENUE

As a result of an internal and external audit review, McKessonHBOC, San Francisco, announced revisions to its fiscal year revenues ending March 1999, 1998 and 1997. McKessonHBOC reported downward revenues by $245.8 million for 1999; $48.4 million for 1998; and $33.2 million for 1997. For more information on the audit, visit www.mckhboc.com.

Armageddon

- This sad series of images recounts McKesson/HBOC's downward spiral over the next year:

McKesson Sees Accounting Fix

April 30, 1999 | From Bloomberg News

McKesson HBOC Inc., whose share price dropped 47% Wednesday after it announced accounting problems in its software unit, said Thursday it hopes to complete an audit and corrections by mid-June. McKesson, the largest U.S. drug wholesaler, wants the audit by outside accountants, Deloitte & Touche, to be completed in time to mail the results to shareholders with its proxy statement, spokesman Larry Kurtz said. McKesson on Wednesday restated earnings, reducing fiscal 1999 profit by 4.4%.

Week in healthcare

Fuzzy math

Software vendors' contingency agreements source of questionable accounting practice

■ By John Morrissey

The criminal indictments of two former HBO & Co. executives into toeing the line on how they report financial performance to shareholders.

Ex-HBOC execs Anthony Bergonzi, left, and Jay Gilbertson, center, are facing criminal charges, while top executive Charles McCall, fired in 1999, was not named in the indictment.

But the indictments by themselves won't ease high-stakes pressure in the industry for vendors to land big fish and for buyers to be able to wiggle off the hook.

The pressure arises from a sales practice in which providers must commit mil-

illegal accounting practices.

Those are views of industry observers in the wake of federal securities fraud charges leveled late last month against Albert Bergonzi and Jay Gilbertson, co-

presidents and co-chief operating officers of the Atlanta-based healthcare information systems and services company before it was acquired by San Francis-

dictment allege that the two "systematically defrauded HBOC shareholders and the investing public" by inflating revenue and earnings through improper contracting practices and underreporting of expenses (Oct. 2, p. 2). The Securities and Exchange Commission filed a civil complaint alleging similar wrongdoing by the two executives.

The criminal indictment also identified 15 HBOC customers that agreed to various contingencies in purchasing software, which allowed prospects to sign a sales contract but gave them a way out if their remaining concerns were not resolved.

Such addendums have been common in the industry, said attorney Ed Getz, a partner in the Chicago office of Gardner, Carton & Douglas and vice chairman of its technology ventures group. "The vendor wants the deal. Providers won't do it unless the remedy is provided," Getz said. But when contingencies are handled

McKesson Profit Revision Sends Its Shares Plunging

April 29, 1999 | From Reuters

Pharmaceutical supply giant McKesson HBOC Inc. stunned investors Wednesday by revising downward its latest quarterly earnings and projecting lower profit through early 2000. The company's stock plummeted nearly 50%, losing $31.25 to close at $34.50 on the New York Stock Exchange. San Francisco-based McKesson, which acquired healthcare information management firm HBO & Co.

McKesson Revises Earnings Again

May 26, 1999 | From Bloomberg News

McKesson HBOC Inc., the largest U.S. drug wholesaler, said Tuesday it found more improperly recorded sales from a software business purchased in January, forcing it for the second time in a month to reduce previously reported profit. McKesson shares fell as much as 12% after the company said it will reduce earnings by an undisclosed amount for the four quarters through March 31.

Armageddon, cont'd

- And the headlines kept getting worse:

McKesson Fires Chairman and 4 Others; 2 Quit

June 22, 1999 | STUART SILVERSTEIN, TIMES STAFF WRITER

A growing controversy over suspected accounting abuses at McKesson HBOC Inc., the world's largest drug wholesaler, led Monday to the firing of the company's chairman and the abrupt departure of six other executives. San Francisco-based McKesson lost its top three executives in the purge, along with four high-ranking officials at its information technology unit. The shake-up stems from the company's continuing investigation into the information technology business, which was known as HBO & Co.

The Washington Post

Article: McKesson HBOC Fires Leaders: "Significant Improprieties' Cited as Audit Continues at Firm

Article from: The Washington Post | Article date: June 22, 1999 | Author: Shu Shin Luh |

McKesson HBOC Inc. ousted most of its top executives yesterday over accounting improprieties involving its newly acquired software unit, promising that new management would return the company to profitability.

Charles W. McCall, the former president of HBO & Co. who was appointed chairman after the McKesson-HBO merger in January, was fired by the board of directors. Also dismissed were virtually all of McCall's top lieutenants at the old HBO, which is now McKesson HBOC's information technology unit. The chief executive, Mark Pulido, and the chief financial officer, Richard Hawkins, resigned.

McKesson Loaned Execs Funds to Buy Shares

July 17, 1999 | Bloomberg News

Executives at McKesson HBOC Inc. borrowed almost $100 million to buy company stock, only to see the shares lose about half their value after the disclosure of accounting improprieties at the largest U.S. drug wholesaler. The borrowers include former Chief Executive Mark Pulido, who owed McKesson $17.8 million as of June 30, according to a proxy statement filed with the Securities and Exchange Commission.

2 Former HBOC Executives Indicted on Fraud Charges

September 29, 2000 | From Reuters

A federal grand jury indicted two former HBO & Co. executives Thursday for an alleged stock scheme that cost shareholders $9 billion and began shortly before the software firm's 1999 merger with medical products supplier McKesson Inc.

Unique?

- It's sad how little we remember of past history… Scandals such as **McKesson/HBOC's** shock us to the core, then are forgotten in a nanosecond as the next news/tweets/likes hits our screens.

- Remember "HIS Insider" that tried to go on-line years ago, before the era of interactive blogs like Mr. HIStalk's?

- They pointed out in this piece a number of 2003 lawsuits, as almost *every* vendor out there has been enmeshed in some sort of scandal over it HIS-tory…

- **McKesson/HBOC** was just the largest and got caught!

HIS Insider Weekly Online

Voice: 480-558-0244

This Issue…

April 26, 2004

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▸ Vendor Demos: 10 Red Flags to Catch…3

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HIS Insider Weekly is not affiliated with trade groups or vendors.

NEWSLETTER PUBLISHERS FOUNDATION — EDITORIAL EXCELLENCE AWARD WINNER

HIS Vendors Battle Distracting Lawsuits…

There's a good chance your vendor is knee-deep in costly litigation. Each of four major HIS vendors that have filed 2003 annual reports with the Securities & Exchange Commission reports are fending off lawsuits.

Example #1: A senior researcher-turned-whistleblower from **IDX**'s Seattle office alleges IDX defrauded the federal government on a hefty government contract.

Example #2: A **Meditech** co-founder and former board member is suing the vendor and several directors, alleging stock-price manipulation and unfair restrictions that make it hard for stockholders to sell their shares. **Meditech spent $500,000** defending the lawsuit in 2003. (See page 4.)

Example #3: Enraged stockholders who last year ganged up on **Eclipsys** - accusing the company and top execs of illicit stock finagling - now are threatening to add the vendor's Sunrise XA response-time problems to their lawsuit.

Example #4: The wheels are still turning for a massive stockholder lawsuit against **Cerner**, alleging that the company and execs misled or "failed to disclose" important business information before a 2003 stock crash. A judge has consolidated eight related lawsuits into a single suit.

All four vendors declined to comment on the lawsuits to us.

Takeaway?

- It's a little hard to make light of such a sad turn of events, but there is one interesting way to look at the **McK/HBOC** scandal.

- Ever heard from tech friends in other industries how "behind" healthcare is compared to others? Well, tell them about this:

- Next time you hear how behind we are, point out to your non-healthcare friend how our industry beat the whole country to the punch when it comes to accounting scandals: the 1999 **McK/HBOC** debacle predated Enron in 2001 *by a full 2 years*, and even involved the same audit firm!

- Another interesting perspective: most vendors' fiscal year end is New Years eve, except a few: like Siemens = 9/30. McKesson's is March 30, so their fiscal year starts on ***April Fools Day***…

More Major Mergers

- After last week's coverage of the **McKesson/HBOC** meltdown, it's nice to pick up the story of how **McKesson** rebounded from the 1999 lawsuits and scandals to get right back into M & As again.

- Here's some of their bigger ones over the next few years:

  - **2000** = MED-Solution, an RX system developed by Health Care Systems, Inc, renamed "Pathways Meds Manager." Like every other HIS product seems to have been at one time or another, it was rated by industry consultant KLAS Enterprises as the #1 in terms of performance, value, customer satisfaction, and the amount of money that they spent over the years buying KLAS' market research reports. Within days, Pathways Meds Manager was integrated with other **McKesson/HBOC** clinical solutions' proposals, contracts, PowerPoints, brochures, ads, and demos. Then over many subsequent years, interfaces were slowly built between the products themselves…

A Picture-Perfect Deal

- Kidding aside, the next deal was a quite a coup in the PACS world:
  - **2002** = **ALI** – In May acquired Vancouver, BC-based ALI Technologies for $340 million. **McKesson** now expanded its flagship Horizon Clinicals, to include data, documents, voice, and medical images via **ALI's** medical image management and PACS. **ALI's** high-profile client base included such notables as:
    - Cedars-Sinai Medical Center
    - Johns Hopkins University Hospital
    - St. Luke's Episcopal Hospital, and
    - Kaiser Permanente.

    A good deal for **ALI**, as **McKesson** had ≈40 times more sales staff than **ALI** (500 versus 12) with systems installed in about *half* of all U.S. hospitals larger than 200 beds...

Ride with the Leader of the PACS...

...or be left behind

MCKESSON
Empowering Healthcare
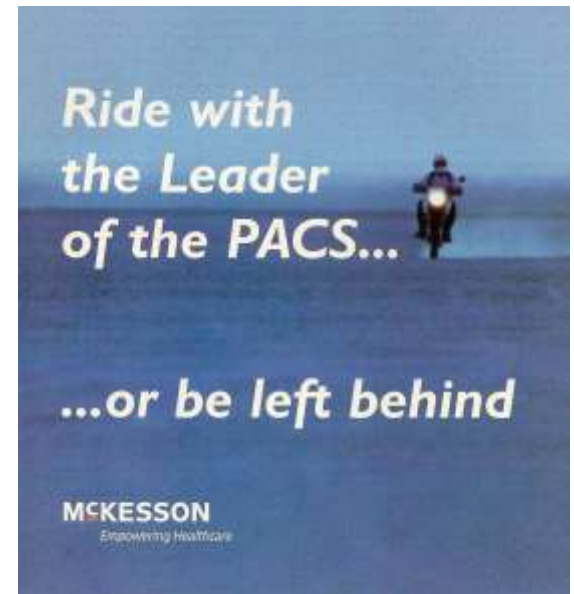
A Banner Year

- **2007** was a major merger year for McKesson with *three* big deals:
  - 1. **Per Se** – at "only" $1.8B, this deal may not have been that big per se, compared to the $14B McKesson spent for HBOC, but Per Se was a series of acquisitions…, oh well, per se:
    - NDC Health's revenue-cycle management business, bought that same year, gave McKesson an entrée into RCM.
    - Previous acquisitions by Per Se over its HIS-tory included:
      - Health Data Services
      - Rapid Systems
      - Atwork
      - Medaphis
      - Consort
      - Medical Consult
      - GFS, etc, etc, etc.

RH Positive

- **2. Relay Health** – Acquired by McKesson in June of 2007, over the previous 3 decades RH had turned HIPAA privacy regulations into the lucrative business of providing secure communications between patients, providers, pharmacies, payors and pharmaceutical manufacturers.

- It's a shame Target never knew about them…

A growing number of your physicians are communicating with patients using non-secure, non-reimbursed e-mail. Yet HIPAA requires the safeguarding of Protected Health Information. There is a better way. RelayHealth (formerly Healinx) provides an enterprise-ready, secure, reimbursable communication service to connect doctors with their patients and peers. It's HIPAA-ready, easy to implement, and branded for your organization. Find out what a growing list of leading healthcare organizations already know. Contact us at 1-866-RELAY-ME or visit www.relayhealth.com today.

))((RelayHealth℠

Secure Online Communication for Healthcare

How Do You Get To Carnegie Hall?

- 3. **Practice Partners** – I must confess that even I get confused with the differences between Practice Partner and **Practice Point Plus**, which McKesson had acquired earlier, let alone the recently announced "integrated" ambulatory solution for Paragon!?

- Ah well, practice makes perfect...

Practice Partner
EMR Event

watch how a physician uses the product

Practice Partner®

A MCKESSON PRODUCT

"Overnight Practice Partner saved me $35,000 a year!"
– George Wilson, MD
Rancho Mirage, California

Recap of *All* the Deals

- Anyway, here it is: a visual recap of the biggest HIS vendor that acquired the most vendors/products over its *50 years* of HIS-tory:

McKesson's HIS Products Time-Line
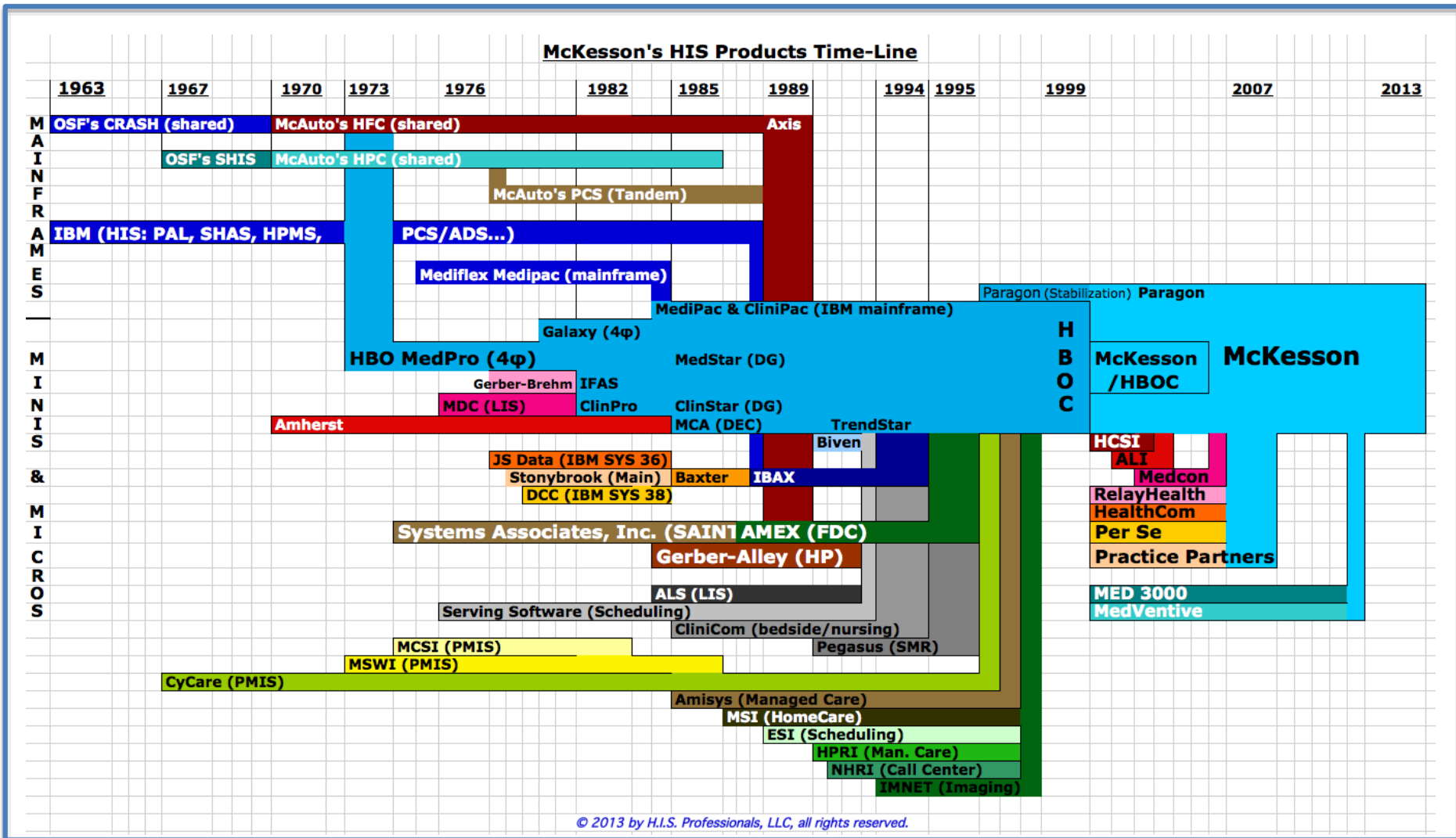
So?

- So what that McKesson was built from scores of mergers & acquisitions over the past 50 years? These M & A roots explain what is easily the *most complex* product line in HIS-tory, to whit:

AccessHealth
AcuDose-Rx
Advantage Catalog
Alliance Partners
Anesthesia Care
Anesthesia-Rx
ANSOS One-Staff
Application Hosting
Application Services
AR Processing
Asset Management
ANSOS One-Staff
Automation Decision Support
Bar-Code Medication Packaging
Behavioral Coaching
Biometric Identity Management
Brand for Surgery Centers
Business Consulting Services
Business Folder
Business Improvement Services

Capacity Planner
Cardiology Management
CareEnhance Review Manager
Central Fill
ClaimCheck
ClaimsXten
Clear Claim Connection
Clear Coverage
ComplyScan
Computing Solutions
Connect-Rx
Contract Manager
Controlled Substance Ordering
Disease Management Programs
Distribution ExcellenceED
Benchmarks Collaborative
Education and Training
Employed Physician Services
EMR and ePrescribing
Enterprise Content Managementr

Enterprise Image Repository
EnterpriseRx_AR
Equipment for Surgery Centers
eShift
eSig CapturePLUS
Expert Help
Fiscal Management
Freight Payment
FrontEdge
Fulfill-Rx
Gift Card Mall
Health & Wellness Programs
Health Buddy Appliance
Health Mart
Healthcare Perf Benchmarks
Healthy Valu$
Homecare
Horizon Blood Bank
Horizon Lab

But Wait, There's More:

Imaging Link Engine
Industry Leadership
Infrastructure Services
In-Office Dispensing
Intelligent Coding
InterQual Behavioral Health
InterQual Care Planning
InterQual Clinical Evidence
InterQual Content Customization
InterQual Coordinated Care
InterQual Behavioral Health
InterQual Learning Source
InterQual Level of Care Criteria
InterQual Molecular Diagnostics
InterQual Online
InterQual Specialty Rx Criteria
InterQual Transparency
InterQual View
InterRater Reliability Suite
InvestiClaim
IT Help Desk Services
IVRxLab Order Management
LoyaltyScript
Lynx Mobile
Lynx TotalView
Lytec and Lytec MD

Managed Services
MAX Impact
McKesson 340B Manager
McKesson Advantage Catalog
McKesson Anesthesia Care
McKesson Biometric Identity
McKesson Business Folder
McKesson Capacity Planner
McKesson Cardiology
McKesson Content Manager
McKesson Image Repository
McKesson Fiscal Management
McKesson Home Healthcare
McKesson Hospice
McKesson Intelligent Coding
McKesson Mobile Manager
McKesson OneStop Generics
McKesson Patient Folder
McKesson Performance Analytics
McKesson Pharm Optimization
McKesson Point of Use Supply
McKesson Population Manager
McKesson Practice Care
McKesson Practice Focus
McKesson Practice Plus
McKesson Preferred Rewards

McKesson Quality Monitor
McKesson Radiology
McKesson Revenue Management
McKesson Risk Manager
McKesson ScanManager
McKesson Strategic Supply
McKesson Study Share
McKesson Supply Chain
McKesson Surgical Manager
McKesson Telehealth Advisor
McKesson Time and Attendance
McKesson Unsaleable Returns
McKesson VITAL Business Insight
MedCarousel
Medical Imaging Workflow
Medication Safety Cabinet
Medisoft
MedShelf-Rx
Molecular Diagnostics
Money Management
My Care Plus
NarcStation
National Consumer Outreach
OneStop Generics
Onmark
OR Benchmarks Collaborative
OTC Consumer Products

And Finally:

PACMED
Paragon
Pathways Healthcare Scheduling
Patient Assistance Programs
Patient Folder
Deficiency Completion
Patient Satisfaction Surveys
Performance Analytics
Performance Visibility
Pharmaceutical Distribution
Pharmacy Decor and Fixtures
Pharmacy Engagement Programs
Pharmacy Management Solutions
Pharmacy Optimization Services
PharmacyRx Hardware
PharmacyRx Suite
Pharmaserv
Physician Resources and Info
Plasma and Biologics Distribution
PlayMaker CRM
Point of Sale
Point of Use Supply
Point-of-Sale for Pharmacy Rx
Population Manager
McKesson Practice Care
McKesson Practice Choice
McKesson Practice Complete

Practice Focus
Practice Man. Technologies
Practice Partner
Prefer Rx
McKesson Preferred Rewards
Prescriber-Pharmacist Interface
Pricing Services
Printing Services
Priority ExpressProcessing Services
Professional Certification
PROmanager-Rx
Provider Manager
Purchasing Tools
Quality Monitor
Radiology
Reimbursement Manager
Reprocessing Services
Retail Expansion
Retail Independent Pharmacy
Revenue Cycle Management
Review Manager Enterprise
Risk Evaluation and Mitigation
Risk Manager
ROBOT-Rx
RxPak

ScanManager
Secure Data Protection
ServiceFirst Customer Relations
SIM plus
SKY Unit Dose Packaging
Specialty Distribution
Strategic Outsourcing
Study Share
Sunmark Private Brand
Supply Chain Management
Surgery Center Educational
Surgical Manager
Surgical Scope Repair
Technology and Integration
Telehealth Advisor
Third-Party Contracting
Time and Attendance
Training and Education Services
TrialScript
Unsaleable Returns Program
VIP Gold
VITAL Business Insight
VITAL Consumer Portal
Web Reporting for ANSOS
Wellness Programs
World-Class Logistics
Your Pharmacy Online Website

Interesting Questions

- Over **200** different products! Makes one wonder:
  - How much would it cost to buy *all* of them?
    - Say, an IDN a with hospital, physician practice, home health care, retail pharmacy, etc?
  - How long would it take a the Atlanta HQ to prepare a proposal and contract to buy *all* 200 products?
    - How many pages printed on paper for signing?
  - How long does it take to train a new sales rep in *all* of these products' many features & prices?
    - How many reps does it take to sell them?
- And when I joined **SMS** in 1969, I thought their SHAS system was complicated with **5** distinct products:
  - Census, Billing, AR, GL and Cost Allocation…
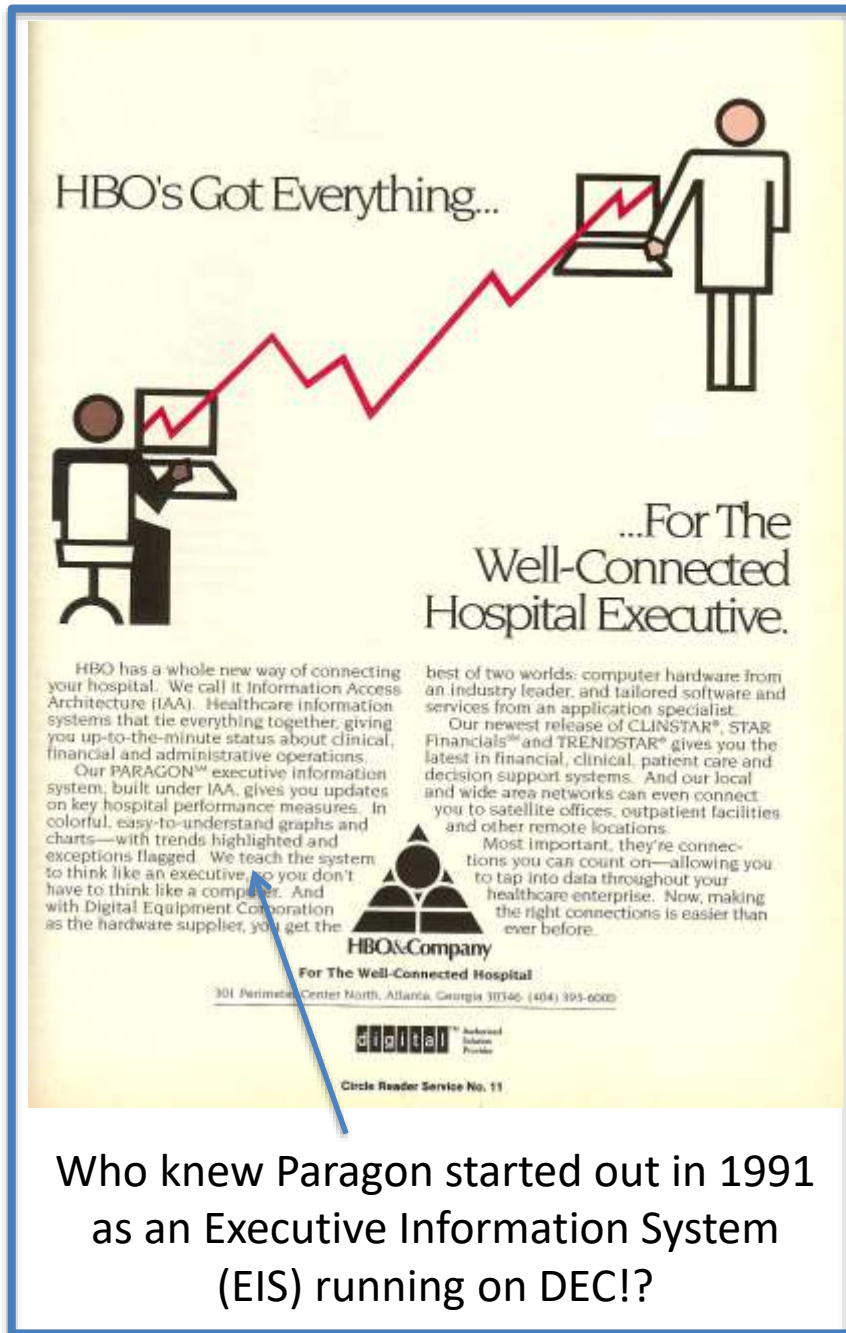
H.I.S.-tory

by Vince Ciotti

Episode #122:

McKesson

Part 9 = Happy Ending

HBO's Got Everything...

...For The Well-Connected Hospital Executive.

HBO has a whole new way of connecting your hospital. We call it Information Access Architecture (IAA). Healthcare information systems that tie everything together, giving you up-to-the-minute status about clinical, financial and administrative operations.

Our PARAGON℠ executive information system, built under IAA, gives you updates on key hospital performance measures. In colorful, easy-to-understand graphs and charts—with trends highlighted and exceptions flagged. We teach the system to think like an executive, so you don't have to think like a computer. And with Digital Equipment Corporation as the hardware supplier, you get the

best of two worlds: computer hardware from an industry leader, and tailored software and services from an application specialist.

Our newest release of CLINSTAR®, STAR Financials℠ and TRENDSTAR® gives you the latest in financial, clinical, patient care and decision support systems. And our local and wide area networks can even connect you to satellite offices, outpatient facilities and other remote locations.

Most important, they're connections you can count on—allowing you to tap into data throughout your healthcare enterprise. Now, making the right connections is easier than ever before.

HBO&Company

For The Well-Connected Hospital

301 Perimeter Center North, Atlanta, Georgia 30346 (404) 393-6000

digital™ Authorized Solution Provider

Circle Reader Service No. 11

Who knew Paragon started out in 1991 as an Executive Information System (EIS) running on DEC!?

IT Rage Of The Nineties

- This last segment of the **McKesson** saga actually goes back to the per-merger days of **HBOC** in the mid-90s, when the IT world was all abuzz with the concept of "client/server" systems. In essence, PCs replaced the inhouse mainframes that dominated the 60s, shared mainframes that ruled the 70s, and minicomputer-based systems that swept the 80s.

- Instead of the large mini or mainframe doing the work, PC workstations (clients) split the processing with a handful of central PCs (servers), running under a 3-tiered architecture:

  - User Services = a *GUI* on the PC clients (viz: Windows 95)

  - Business Services = modular, customizable applications

  - Data Services = a *relational* data base, e.g: SQL or Cache

- Seems a little trite today, but 20 years ago, it represented a *huge* challenge to the dozens of legacy HIS systems…

A Saint Reborn

- One of **HBOC's** many acquisitions had been **FDC**, formed by **AMEX** out of **SAI** and McAuto. **FDC** didn't do much with Mac's systems which were sadly sunset, but **SAI** had almost 300 Saint clients running on their Point Four minis (right) that had evolved to Saint Plus or Saint Express, keeping the upgrade & maintenance revenues flowing.

  - **HBOC** inherited this challenge and with the same daring Walt Huff showed in creating MedPro, they launched a project to re-write Saint as a true C/S system, just when **Meditech** was launching their C/S version of their venerable MAGIC system.

- The *name* for this **HBOC** product was itself re-cycled from an early DEC-based EIS system per the 1991 ad on the first slide: **Paragon**, appropriate for what was hoped to be the latest & greatest HIS!

The Big Splash

- **HBOC** announced Paragon with the usual sales & marketing hype touting the advantages of its modern C/S architecture:
  - Huge booth at that year's HIMSS conference,
  - Hot new brochures, proposals, ppt files, etc., &
  - "Special offers" targeting the 300 Saint Plus clients.

- One of them, Olean General Hospital in frozen upstate NY, contacted us in late 1996 for help negotiating a contract for Paragon to replace their Saint Plus. As former vendor reps who have sold a number of systems *before* their time, we were skeptical of future promises even from a giant like **HBOC**

- We protected Olean the best we could, frustrating their IT Director (she was very excited about the potential of a C/S system) with all of our contract terms & conditions. Olean signed and began the conversion…

H P ESTERHUYSE
KRAAIRIVIER

DANGER AHEAD
FASTEN SAFETY BELTS
AND REMOVE DENTURES

GEVAAR VOOR
MAAK GORDELS VAS
EN VERWYDER KUNSTANDE

Time Old Story...

- Readers who have been out there a few years can guess what happened next to Olean and the 50-odd (sic) other pilots:
  - Development took rather longer than expected (by *years*...),
  - Releases came out with pieces of the system (a *fraction*...), &
  - New modules & apps came with extra charges (*surprise?*).
- It's the same old story as was played out with almost *every* new product ever introduced in HIS-tory: SMS' Unifile in the 70s, Millennium in the 90s, Soarian & Release 6.0 in the 2000s...
- As Y2K neared, some Paragon early adopters sued, others bought replacement systems, while some waited patiently through the releases and delays limping along with Saint...
- Protected by our stringent contract Ts & Cs, Olean asked us for help *again* searching for a replacement in 2000, that wound up being QuadraMed's Affinity, that lasted them for a good 10 years...

A Case Of Indigestion

- When **McKesson** acquired **HBOC** in 1999, they inherited the ≈30 remaining Paragon early adopters, suffering from "agida…"

- Their new CEO, <u>Graham King</u>, who had cut his teeth at **SMS** and **Micro Healthsystems** (see episode 47 at *hispros.com*), turned to his trusted lieutenant from NJ, <u>Jim Pesce</u>, to handle the problem.

- Graham sent Jim to Charlotte, NC (FDC's HQ) to shut down the Paragon project. When he got there, Jim looked into the system and was impressed by what he saw: sharp people, a modern C/S design, and a lot of progress made since the early problems…

- He returned to Atlanta and appealed to Graham to save Paragon – it had far more potential than aging the Star, Series, etc. Graham trusted Jim's opinion, but just to be sure, put Jim in charge of it, just like McAuto had done to <u>Chuck Barlow</u> with OSF in 1970!

Stabilization Program

- As his first step in charge of Paragon Jim pulled a gutsy move: rather than stepping up sales (the usual move by any vendor on trouble), Jim pulled Paragon 2.9 *off* of the market and concentrated on getting the next releases out on time & schedule, to save as many of the early adopters as possible.

  - This radical move paid off: the remaining pilot sites saw the next releases in 2001 come out almost on time, with promised features, and no extra fees!

  - The next year, Jim put Paragon back on the market, and word of its C/S architecture spread. It caught the eye of a sharp IT Director attending one of our HIS Buyers Seminars - Dave Witton of St. Johns in Jackson Hole, WY. Dave was quite the techie, having written apps himself, and even using Apple servers!

Tough Selection Process

- Dave hired our firm in 2002 to follow our "Non-RFP" selection process, which replaces the old "**R**equest **F**or **P**revarication" with users calling their peers at references, in-depth review of user manuals, and tough contract terms, all scored numerically.

- By 2002, Paragon scored very well in our demanding process, as can be seen in the chart below for the 3 semi-finalists vendors:

- Mindful of Olean's debacle, we negotiated the same stringent contract protection so if things turned south, St. John's would only lose time, not money. Dave signed, went live and low & behold, Paragon worked! Not perfect (what HIS is?), but the solid C/S architecture rocked.

Semi-Final Vendor Scores
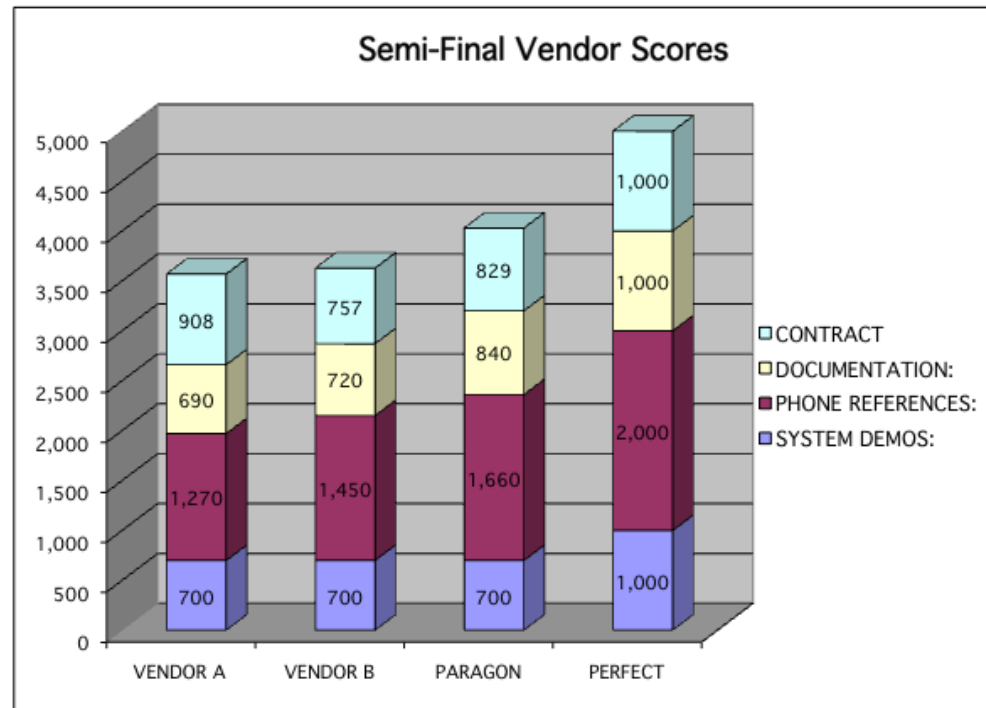
Third Time Around

- Throughout the 200s, Paragon started selling like proverbial hot cakes as CIO after CIO learned like Dave the advantages of a pure Microsoft platform with a Windows GUI & SQL data base.

- Ironically, around 2009 we heard from Olean *again* (some people never learn…): after 10 years with Affinity, they wanted to search the market to see what were the alternatives to prepare for the upcoming CPOE, E.H.R. and MU tidal wave.

- The plot had thickened this time around, however, as just when we were ready to start our selection process, word came down that a merger with neighboring hospital had been approved: Bradford Regional Medical Center in nearby PA, with the new entity to be called Upper Allegheny Health Systems (UAHS).
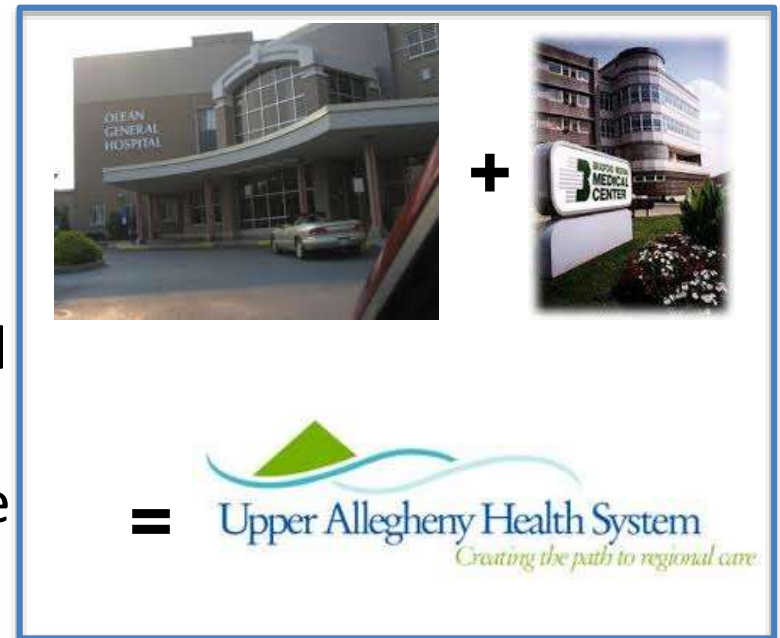
The Results

- Bradford had used our firm years ago to select **Meditech's** Magic, which they had implemented pretty well, so we paired off **Meditech's** C/S against Paragon's C/S to see which system would run in the merged entity.

- As the results on the right show, Paragon edged out Meditech's C/S in the (objective) eyes of the users at Olean, while Bradford favored their more familiar Meditech.

OGH Vendor Recapitulation

Legend:
- IMPLEMENTATION:
- MD FAIR:
- SITE VISITS:
- CONTRACT
- DOCUMENTATION:
- PHONE REFERENCES:
- SYSTEM DEMOS:

Categories: Meditech C/S, McKesson Paragon, Perfect
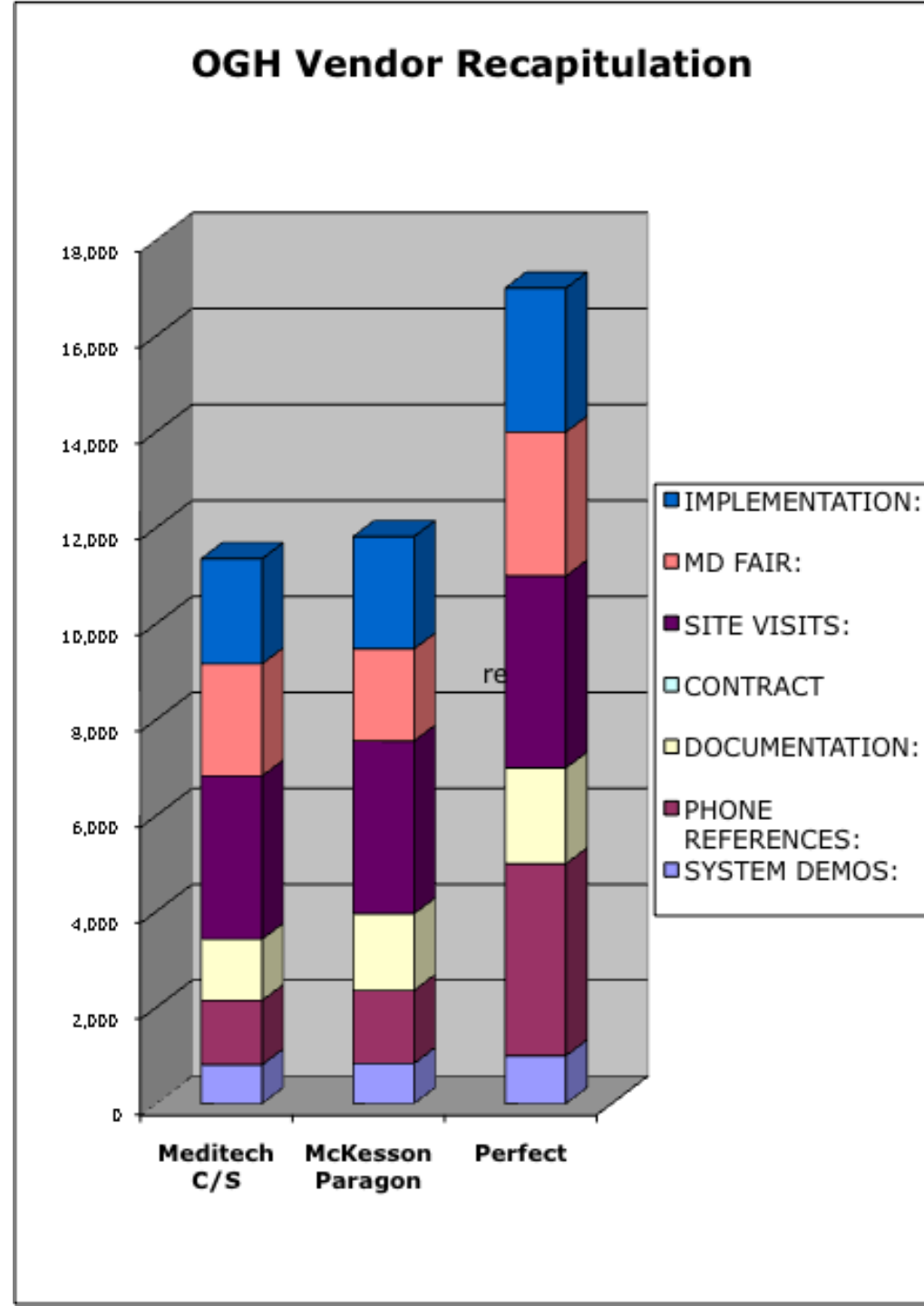
Surprise Ending

- During the selection process, most of the C-Suite at Bradford retired, and Olean executives took over management there.

- At one of the most inspiring afternoons of my 45-year career in HIS, the executives met to decide the system, which seemed to me to be a foregone conclusion: Olean ruled and their users wanted Paragon, period, right? *Wrong!* The UAHS execs at Bradford spoke up for their users who were going through a tough time with budget cuts & layoffs stressing their bottom line, productivity and morale. They appealed to their peers at Olean to select **Meditech** so they could turn Bradford around and avoid the inevitable travail of a system conversion…

- Incredibly, after a thoughtful discussion, the combined team agreed: they would do what was best for UAHS overall, not just the top dog, and went with **Meditech** C/S! What a great team of people: if you're ever admitted, hope it's in Olean, NY!

The New Med-Pro?

- Olean's decision was a rare loss for Paragon as it has since swept hundreds of decisions around the country beating out almost all competitors (many still with proprietary DBs), thanks to the pure-Microsoft architecture that gives CIOs enormous access to their data for PC downloads, report writers, interfaces, etc.

- So an amazing ending to the saga of OSF/HBO/SAI/FDC/HBOC/McKesson that led to the creation of the "go-forward" *Paragon* of systems from the largest vendor in the HIS industry today.

- And to think it all started about *fifty* years ago with
  - Walt Huff, Bruce Barrington & Rick Owens' "CRASH" and "SHIS" systems at OSF in Peoria, IL, in the mid-60s, and
  - Jack Weil & Mason Chrisman "Saint" system written for Charlotte Memorial at SAI in 1966 in Charlotte, NC.

- A fitting ending to the amazingly long HIS-story of our industry!

H.I.S.-tory - by Vince Ciotti

Episode #123: *Epic*-ologue

HIS-tory Presentation

- If you've been following this HIS-tory series over the past 2 years, you may remember the kind way Judy Faulkner reacted when I contacted her about the story of **Epic** (you can find all the gory details in episodes #95 through 98 at *HISPros.com*).

- As a rather harsh critic of *most* vendors, I expected a cold shoulder, but she surprised me with a warm invite and was quite the gracious host when I arrived in (warm) Verona last October.

- I've since been accused of "drinking the Kool-Aid," but I now understand why so many large AMCs and IDNs have gone **Epic** – it's the opposite of Verona's climate!

- So I asked Judy if she'd like me to present a my 2011 HIMSS presentation that launched this whole series to her staff, she accepted, and I called my travel agent for a dog sled…

A Warm Audience!

- Even more chilling than the weather was the fact that I would be addressing **Epic's** entire employee base of ≈**6,000** people! The largest audience I ever addressed was about 200-300 at various HIMSS & HFMA meetings over the years – heck, the Metropolitan Opera House in Lincoln Center NY only seats about 4,000...

- As it turns out, this would be the *first* presentation in a brand new hall **Epic** just constructed that holds an amazing 11,000 people, for future growth as well as their annual User Group meetings.

- The room is called "Deep Space" and in typical Epic fashion it was built in a unique manner: all *underground* to not spoil the lovely view of surrounding farms.

Introduction

- So I travelled through the "polar vortex" to Verona last week where Judy's staff did its usual excellent job of organizing for the presentation. You can imagine how much technology Deep Space employs coming from a leading IT vendor – their only challenge was to find an overhead projector which I like to begin with to make the visual point about just how far back the 1960s were! They found one, and we set it up as a brief "blast from the past."

- Amazingly, all 6K people found their way into Deep Space in 15 minutes, another testament to **Epic's** superb planning and organization. Judy gave a kind and flattering introduction (that I had written), and I swallowed hard as I climbed the steps to face those 12,000 eyes & ears...

Strip Tease!

- I started out in my business suit just like at HIMSS in 2011 and got a few giggles about how overhead projectors could do things PowerPoint can't, like a "revelator" – a piece of paper slid under the foil to reveal only parts at a time - and writing with an erasable (one hopes!) pen...

- Then the fun began: I told the ladies to avert their eyes as I was going to show them what we looked like in the 60s by taking my pants off... I slowly revealed a hippie outfit under my suit that Mr. HIStalk goaded me to buy for the HIMSS shtick in 2011. The ladies roared (while the men moaned...) as I slowly revealed a pair of (overly) tight & colorful bell-bottom pants under my suit.

Strip Tease, cont'd

- Next came a flower shirt with 6-inch wide tie that barely matched, highlighted by a gold chain. Actually, the one piece of clothing that really did come from the 1960s is the dark leather belt which I wore to "D'Scene," *the* hot spot in Philly circa 1969 when I started at **SMS**. Of course, I have had to drill many more holes in it to let it out as I grew & prospered…

- To really set the stage, I then showed them some of dance steps we did at D'Scene way back then – amazing my tired old bones could still do those tricky steps, although probably with a little less gusto & flair than when I was in my peak in my twenties. I did win a dance contest back then, and didn't do too bad with the hot chicks in Phila…

A Hairy Subject

- Lastly I donned a thick curly wig to cover my grey temples, and finally looked just like I did when Jim Macaleer interviewed me in King Of Prussia – I can never figure out why he ever hired me (nor I suspect can he…)
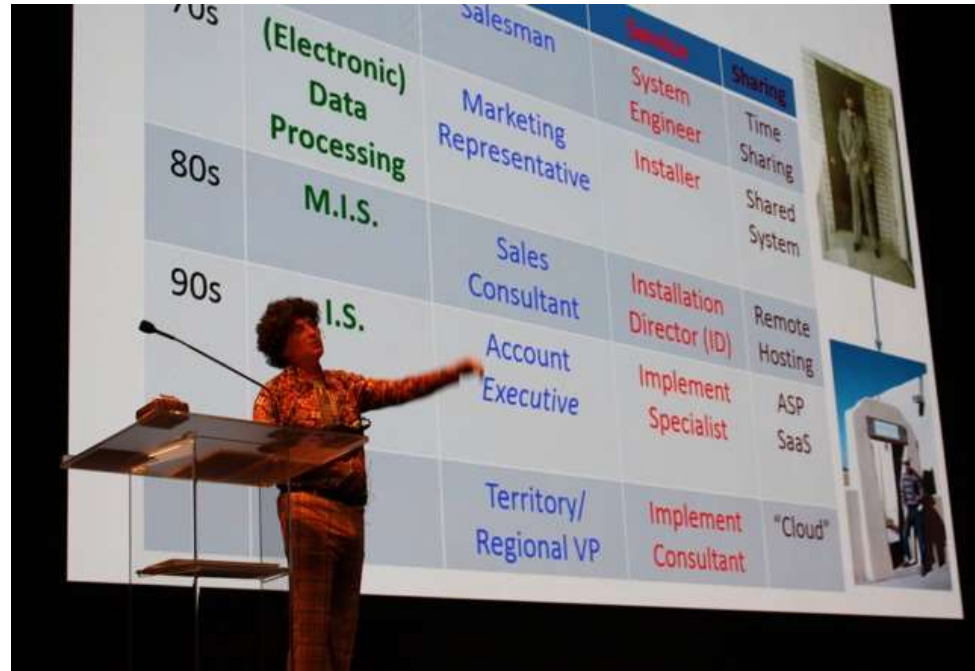
- In case you think I'm exaggerating our hirsute appearance back then, the picture on the left was taken in 1973 at our apartment near King of Prussia when I donned one of the early 3-piece business suits that swept **IBM's** "white shirt & blue tie" uniform off the stage at **SMS**. The beard didn't last as long quite as the suit did!

How Fears Can Fade away…

- It's funny how the absolute terror I first felt at the thought of standing in front of 6,000 people evaporated almost instantly with their first laughter, and as I preceded into the content that I knew so well: 6K or 6, once you get going, it's a moot point…

HIS-tory Histrionics

- Just like we "green IDs" at SMS way back then, **Epic** hires mostly bright, young folks and teaches them the "Epic" way. So the audience was pretty young – an average age of about 30. I then proceeded to regale them with tales from the HIS-tory crypt that occurred decades before many of them were even *born*, like:
  - **Lockheed's** "MIS" pioneering CPOE & EMRs way back in 1967
  - Mike Mulhalls' **IBM** "HIS" project introducing scribes in 1968
  - **NadaCom's** "REACH" EMR system started in the late 1960s
  - Walt Huff's "CRASH" system from 1963, and "SHIS" from 1970
  - Malcolm Gelser's "**PHAMIS**" EMR system started in 1975
  - **SMS**' "Unifile" pioneering data base system from the mid 70s
  - **NCR's** PNUT bedside patient monitoring system from 1984
  - **CliniCom's** hand-held, bedside BMV system from 1985…

Attentive Audience

- To their credit, the youngsters seemed to stay awake and paid attention – maybe our younger years really are our best years, and our minds are far less open to new info as we age?
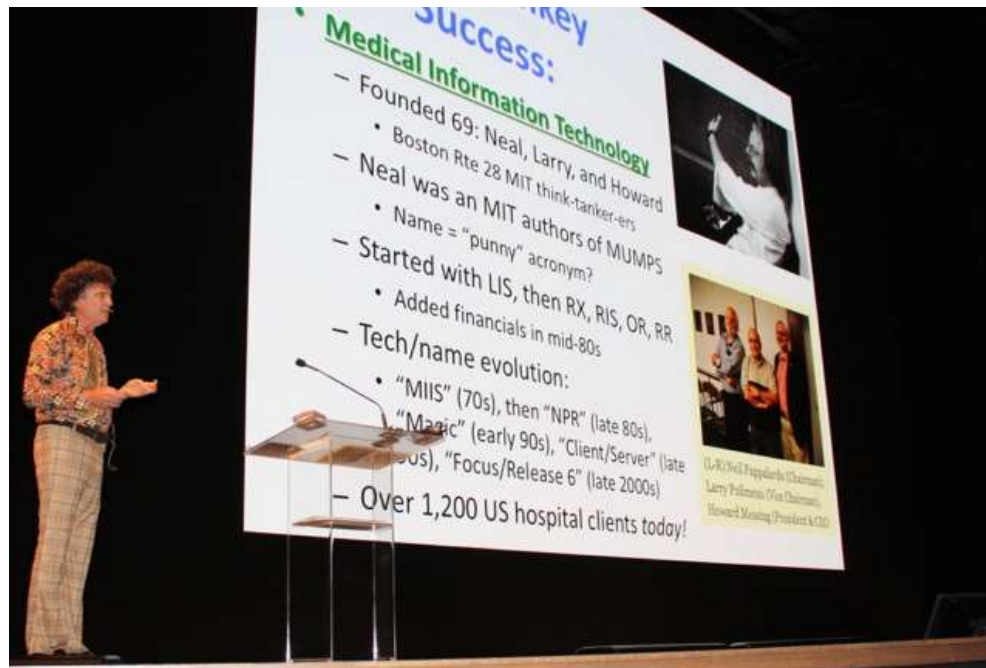
- They enjoyed **Epic**-related stories the most, for example, how Neal Pappalardo was one of Judy's mentors when she first started "Human Services Computing" in 1979, and out of respect for him, she only sold to *large* hospitals, AMCs and IDNs.

Surprise During Q & A Session

- After an hour of these tales from HIS-tory, a Q&A session started and I was stumped by a question raised by an "EPIC-curean:"

    - *"This review of the past was very informative, thank you, but tell us, what do you see for the **future** of HIS systems?"*

- Wow, I was stumped: after giving this session to ≈300 CIOs at HIMSS, the IT staff of a large hospital and dozens of vendor reps at a sales kickoff meeting, let alone all these 122 episodes on HIStalk with hundreds of resulting emails, no one ever looked *forward*. I actually had to stop and think for a minute (a rare event for those who know me…). Best I could come up with were some platitudes and generalities – I really had never thought about it myself. Maybe that's the best point to leave a HIS-tory series with – where is all of this marvelous technology taking us? What will the HIS industry & systems look like in 5 or 10 years??

Gracious Hosts

- Many of you will recognize <u>Judy Faulkner</u>, but her President, <u>Carl Dvorak</u>, on the right deserves recognition too as not only a super-bright techie (he showed me things PowerPoint can do that I hadn't known about for 30 years!), but as a very pleasant and charming person to boot!

- They both joined us for dinner where we had a fascinating conversation comparing answers about the future of HIS systems: I wish I had it tape-recorded it to see how our prognostications will have fared by 2024…

Final Episodes

- So thanks to Judy's team at **Epic**, I'm gonna add a few last episodes on the "take-aways" from HIS-tory: just what is it that all these stories about the roots of HIS systems tell a CIO today?

- Starting with *tactical* issues that hospitals face today like:
  - How long to stay with your "legacy" HIS, versus taking the plunge with a modern but relatively untested replacement?
  - Am I safer with a larger vendor firm than with a start-up?
  - Who can you trust to give advice when planning/selecting?
  - Are the rewards worth the risks when being a pilot site?

- Strategic questions over 5-10 years are tougher, so I welcome thoughts from readers: I'll give you all due credit (or blame!).

- And if you'd like to have my HIS-tory presentation (and costume) at your next staff meeting or regional HIMSS session, call or write
  - Vince Ciotti at: 505.466.4958   or   *vciott@hispros.com*

The Greatest HIS-tory Hero

- Sad news last week: [Jim Macaleer](#), the co-founder and CEO of Shared Medical System (SMS) died. Jim was easily one of the most successful business entrepreneurs in our industry, having co-founded SMS back in 1969, and led it to becoming the number one HIS vendor for *decades* before its sale to Siemens. Much more importantly, he was a father-figure to thousands of employees like myself, who owe their careers to this great man.

- It is difficult to write a tribute to a man who so many know much better than I, but Mr. HIStalk is so kind to air these slide shows that I hope I can get some of Jim's story across to the many people who join me in grieving for his loss. Our sincerest condolences to his family who at least got to spend so much time with "Big Jim" over his many happy years...

Daring HIS Pioneers

- Like so many early HIS-tory heros, Jim got his start at **IBM** back in the 1960s, when their Series/360 mainframes were sweeping the DP industry. Jim worked in **IBM's** Philadelphia office along with two other HIS-tory heroes whose names should ring many bells:

  - <u>Harvey Wilson</u> – of later Eclipsys fame, was a super-salesman back then with **IBM**, selling Series 360 mainframes to every large hospital that could afford them in the Delaware Valley, and some that couldn't… (- don't get mad, Harv, just kidding!).

  Clyde M. Hyde

  - <u>Clyde Hyde</u> – a brilliant scientific researcher in the then-modern field of Electrocardiograms. Clyde could speak geek with the best of them, both in the data processing and medical worlds, and was a leading expert in EKGs when few heard of them.

A Daring Idea

- Jim, Harvey and Clyde weren't the only ones at **IBM** selling 360s to literally every large hospital that could afford them - **IBM** reps around the country were soon running out of prospects since the thousands of small hospitals could never afford the multi-million dollar mainframe hardware, let alone the costly DP staff to write COBOL programs and operate the complicated JCL and VSAM files.

- Realizing they were running out of large hospital prospects, IBM started writing a "Shared Hospital Accounting System" (SHAS) in their Armonk HQ that would enable a number of small hospitals *share* a costly Series/360 among themselves, making both the capital and operating costs far more affordable.

IBM Application Program

Shared Hospital Accounting System (SHAS)

(360A-UH-11X)

Program Description Manual

The Shared Hospital Accounting System (SHAS) provides hospital accounting for a multiple-hospital environment. The participating hospitals may be connected to the central System/360 facility by teleprocessing terminals. SHAS consists of application programs and a teleprocessing executive. The application programs are patient billing, accounts receivable, and general ledger -- including accounting for both inpatients and outpatients.

Shared Start-Up

- **SHAS** gave Jim, Harvey & Clyde a bright idea – form a company that ran the 360 mainframe and *sell* this new system to hospitals!

- They approached Wall St. mavens with their bold idea and sold them as well as they had sold so many hospitals on Series/360s, raising $5M in capital to get their new company off the ground.

- Big Jim became the Chairman and CEO, Harvey the Sr. VP of Sales & Marketing, and Clyde the VP of R & D. They rented office space at a shopping center in Bridgeport, PA (near King of Prussia) and named their new firm appropriately enough: <u>Shared Medical Systems</u>.

Here's the ad they ran at Temple University in Philly that got me my first job at the Ross & Royal Roads' office.

Big Challenges!

- SMS faced a number of challenges: a small unknown start-up is a tough sell in a world dominated by hardware giants like **IBM**, and competing shared systems run by giants like **GE** and **McAuto**, let alone almost every state's **Blue Cross** systems that also got their hands on SHAS and started selling it to their local, small hospitals.

- <u>Harvey</u> did incredible miracle work in sales, recruiting the best & brightest salesmen from **IBM**, and leading them in closing sales all around the country.

- <u>Jim</u> had an even tougher job: managing the company's finances as the $5M shrunk faster than revenue came in. He led by example, driving a used Dodge Dart so old that salesmen asked me to pick up prospects at the airport in my 66 'vette!

Strong & Caring Leader

- Jim led SMS through some very tough times back in those days:
  - June 30th 1970 - SMS re-wrote the SHAS code to allow for more than a *single* character for the hospital code, to handle more than 36 clients. The system went down for *days,* and Jim called employees at home to come in on the weekend and help keypunch cards to re-balance the screwed-up files…

- Jim was extremely generous with SMS' stock as well, giving many employees either initial "penny-a-share" stock, or, after the IPO in 1975, stock options that locked in the price at current value, which increased as the company's market value soared, sharing these profits with the SMS team.

[SI] Shared Medical Systems

February 18, 1974

Dear SMS Employee:

Last year at this time I wrote to you expressing my confidence that all of us working together could make 1973 our best year ever. I am pleased to report to you that 1973 was, indeed, our finest year.

For example:

	1973	1972
Number of health care facilities sold	41	26
Total number of facilities under contract	131	90
Total number of beds under contract (not including nursery beds)	31,000	23,000
Number of states in which clients are located	24	17
Number of employees	212	153
Ranking in the industry	1	1

As you can see from these statistics, 1973 was a very good year. This was due to your efforts, and on behalf of our Board of Directors and Stockholders I wish to express my appreciation for your loyalty and dedication.

Great Sense of Humor

- For a "Theory X" manager, Jim had a great sense of humor. Here's two of hundreds of stories about his wit and love of laughter:

  - In the early 70s, the annual Xmas parties were a big deal, where our wives got to meet the weird people we worked with. Jim actually let us hold a "Roast" like Don Rickles did on TV, where we all mocked him in public, and he got us back with glee!

- That's Jim's younger brother Terry on the extreme right, who laid into Jim (3rd from the right) with gusto, only to get an even better mocking from his big brother about their youthful escapades.

Employee Memos

- Hard to remember the days when we communicated on *paper*, rather than email, but on the right is a typical "wise guy" memo Jim loved to write.

- He issued this one in 1985 when then-president Ronald Reagan was scheduled to visit – check out the last paragraph!

MEMORANDUM

May 28, 1985

TO: All SMS Corporate Employees

FROM: R. James Macaleer

On Friday, May 31 President Reagan will make a "major" speech on his tax policy at the southeast edge of our parking lot (in front of the new "Rouse" buildings). All employees are encouraged to attend.

There will be special restrictions on parking and on the use of the Atrium I cafeteria on Friday. More information on these two topics will be forthcoming.

Between now and Friday the entire area will be crawling with secret service and White House personnel. Try not to run over any of them when entering or leaving our parking lots. (It is rumored that some secret service personnel will be disguised as trees and that others will be hiding under large rocks).

CSC Memo

- Jim also had fun with memos to clients too – "Customer Service Center" (CSC) memos sent to hospitals explaining improvements to the system. One went out in 1977 on Inventory that was rather obtuse, so Jim sent this follow-up apology a few weeks later – it wasn't signed, but we all knew who wrote it!

SMS Shared Medical Systems

July 27, 1977

MEMORANDUM TO SMS CUSTOMERS

MANUAL: Inventory

SUBJECT: Revision to Customer Memorandum #P-0531

DISTRIBUTION: Administrator
                Controller
                Purchasing Manager
                Data Processing Coordinator

We've all had days when nothing seems to go right. We had one recently. At least that's the only possibility that we can come up with to explain our inventory memo P-0531 dated July 11, 1977.

Aside from being illogical and not very clear, it wasn't a bad memo. Certainly our intent was good, but our execution missed its mark.

Attached is a revision of this memo. We hope that it clarifies the situation. We apologize for any inconvenience that the original memo may have caused.

Scary Slip

- One winter day in the 1970s, the company really took a dive when a snow storm blanketed our parking lot at 650 Park Avenue in King of Prussia (image in lower right). Jim was working one of his usual 12+ hour days, leaving the office around 8PM to walk across the slippery parking lot to his car (he had replaced the ancient Dodge with a new Chevy – not a Caddy or Rolls, but, a cheap Chevy!). Jim slipped on the ice, and fell so hard he hurt his back and had to stay home in bed-rest for several weeks…

- I remember very well how all we K. of P. employees were rather nervous about his absence, and eager for his recovery. We breathed a sigh of relief when he finally returned after a month, wearing sneakers to and from his car, then changing into the IBM-uniform "wingtip" shoes in his office!

How Successful *Was* SMS?

Shared Medical Systems

- Jim's success leading SMS is best summed up by #s:
  - When I started in 1969, we had ≈10 hospitals, 30-odd (sic) employees, and annual revenue under a million dollars.
  - When I left 10 years later in 1979, **SMS** had several *hundred* clients, over 400 employees, and annual revenue of ≈$100M.
  - By 1990, **SMS** had grown to almost 1,000 clients on both shared and minicomputer system products (ACTIon, Allegra…), several *thousand* employees, and annual revenues of over $400M.
  - In 2000, when bought by Siemens for about $2B, SMS had over 7,000 employees, and annual revenue of $1.2B

  - Add up the 40 years of annual revenue and it's over ***$20 Billion Dollars!!!!*** Not bad for a start-up next to a deli at Ross & Royal Roads…

  - *No wonder Jim & Harvey are smiling in this picture from our 2009 reunion:*

Continued Success

- After selling SMS to Siemens, Jim retired and started enjoying life even more, taking up bird-watching with his wife Jean and working with numerous not-for-profits in Philly and even founding a charity near his home in West Chester county.

- On October 21st he was awarded this citation from Terence Farrell, the Chairman of the Chester County Commissioners:

  - "Today I was pleased to present a citation on behalf of the Board to R. James 'Jim' Macaleer, recognizing many of the good and generous things he has done in his lifetime for the citizens of CC. Dr. Macaleer was co-founder of Shared Medical Systems (SMS) and a philanthropic institution in Chester County. Because he is ailing, I read and presented the citation at his bedside, letting him and his family know that the Board applauds him 'for his tremendous dedication to his community' and that we are proclaiming January 29th (his birthday) as R. James Macaleer Day in Chester County. Thanks, Jim, for all you have done, for so many."

Requiescat In Pace

- Early this year, Jim came down with a serious illness which he fought just as hard as fought his many business opponents.

- Despite being ill, he showed up at an event for hundreds of former SMS employees Cerner was offering early retirement to – they were amazed he cared enough to show up and wishing them all well, congratulated them on their successful careers.

- After his illness worsened, I reached him on the phone in a nursing home recently, and was amazed he remembered me after all these years. We shared a few pleasantries about early the early SMS days, I offered my condolences over his illness, and he bravely commented: "Nobody lives forever."

- He died last week surrounded physically by his family, and emotionally by the thousands of former SMS employees who were lucky enough to work for him - R.I.P.

History of the

Healthcare Information and Management Systems Society

(Formerly Hospital Management Systems Society)

Written by the HIMSS Legacy Workgroup
(Updated January 2013)

Table of Contents

Appendix

Preface

In summer 2006, HIMSS Board Chair George Hickman, FHIMSS, asked for the creation of a Legacy Workgroup. This group of Lifetime members was developed as a component of the Fellows Council, because the Fellows represented the more senior members of the Society. More specifically, the Lifetime members would be able to tell the legacy of HIMSS since its formation in the late 1950s, its inception as the Hospital Management Systems Society (HMSS) in 1961, and its affiliation with the American Hospital Association as a personal member group in 1966.

The Legacy Workgroup was given the charter for documenting the Society's colorful history from its very roots of fewer than 50 members representing practicing hospital management engineers, hospital administrators, consultants, and academicians, to the current diversity of members. The objective of this endeavor was to provide the anchor for a work-in-progress history. It is expected that the work done by the Legacy Workgroup will be amended each year as new information about the Society's activities, and achievements are developed. The goal is to provide a more contemporary history for HIMSS members and future generations of
members with an understanding as to how and why the Society began and how it evolved. The Legacy Workgroup wants this documented history to serve as a way to pass along the saga of the history of HMSS/HIMSS, from inception to current time (2007) and beyond.

The foundation of the Legacy Workgroup's activity was a document that had been prepared by past Society Director, Richard P. Covert, PhD. Over the years, Dick meticulously extracted information from published Society newsletters. This document was annually updated and appeared in the annual membership directory; the last directory published was for the year 2000-2001. The Legacy Workgroup supplemented Dick Covert's work by adding information, with sources such as personal experience (from those who lived the history) and historical documents.

I would like to acknowledge two primary sources for a wealth of new knowledge that was incorporated into the history document. First, there was Ed Gerner, who had worked with the late Dr. Harold Smalley to plant the seed for HIMSS. Both were founders of the Society: Ed was its first president (1961-1963), and Harold was the first Executive Director. Ed provided previously unknown information.

Second, John Freeman, PhD, FHIMSS, was a continuous source of information. John, another founding father, co-authored with Smalley the book, *Hospital Industrial Engineering*, which became the bible for hospital management systems professionals. John also is noted for his generous contributions to the Legacy Exhibit, which was first unveiled at the 2007 Annual HIMSS Conference & Exhibition in New Orleans.

I wish to also acknowledge and thank others who contributed their efforts to this document. They are: Bob Durej, LFHIMSS; Richard Friedland, LFHIMSS; Alan Goldberg, LFHIMSS; Dennis L'Heureux, LFHIMSS; Frank Milewski, LFHIMSS; Justin Myrick, LFHIMSS; Frank Overfelt, FHIMSS; Jeff Suszkowski, LFHIMSS; and Mark Tepping, LFHIMSS. I also want to thank John Werner and Jack Gilbert, EdD, former members and past HMSS Board of Directors' members for their input.

As noted above, those who contributed to this effort lived the HMSS/HIMSS history, particularly for the period of the Society's genesis through 1993. It is the hope of the authors that this is the first stage of a work-in-progress and that the same degree of exuberance will be demonstrated by the more contemporary members to continue documenting the HMSS/HIMSS Legacy.

Barry T. Ross, LFHIMSS, Lifetime Member
Chairman, Legacy Workgroup
July 2007

Dedication

Edward J. Gerner, *Jr.*
PRESIDENT

August 6, 1924 – May 11, 2007

This work is dedicated to the memory of Edward J. Gerner. Ed was pursuing his industrial engineering studies at the University of Pittsburgh while working in the steel industry. Concurrently, Harold E. Smalley was working on his PhD at Pittsburgh when he introduced methods improvement concepts and industrial engineering techniques to Children's Hospital of Pittsburgh. The hospital, as a result, desired to pursue these concepts, and Ed Gerner was selected for the job in 1956.   This began the
strong Smalley-Gerner bond that transcended Smalley's move to Georgia Tech in 1958.

As co-founder of the Hospital Management Systems Society (HMSS) and as its first president, he contributed significantly to the Society's legacy, guiding it through its formative years that included relationship development with the American Hospital Association. As a pioneer in hospital management engineering, his belief was that there needed to be a means for networking among practitioners to share experiences and knowledge . . . the tenet upon which the Hospital Management Systems Society was founded.

He developed the first known hospital Management Engineering department in the country at Children's Hospital of Pittsburgh and provided his services to hospitals around Western Pennsylvania, thereby helping spread the management systems profession in hospitals. As a hospital administrator in Pittsburgh and a Fellow in the American College of Healthcare Executives, he understood, appreciated, and fully supported the importance of hospital management systems.

Twenty-one years after creating HMSS, he and three other practitioners formed the Western Pennsylvania chapter of HMSS in 1982.

Ed was eager to become an active participant in the legacy documentation initiative. He contributed information that would have been forever lost without his involvement. Ed desired to see the finished product, but his untimely passing did not permit this Without Ed's foresight, initiative, and close relationship with Harold Smalley, the Legacy Workgroup would not have had this legacy to write about. HMSS/HIMSS was Ed's labor of love.

Pre-1961 – The Formation Years for the Hospital Management Systems Society

The Healthcare Information and Management Systems Society (HIMSS) was organized in 1961 as the Hospital Management Systems Society (HMSS), an independent, unincorporated, nonprofit, voluntary association of individuals.

Purpose: HMSS was founded on the thesis that an organized exchange of experience among members and other interested parties could promote a better understanding of the principles underlying hospital management systems and could develop new principles for improving the skills of the person who directs hospital programs and the practitioner who analyzes, designs, or improves hospital systems. The purpose of the Society as stated in the original constitution was *"to promote the continual improvement of hospital management systems through organized programs of research, education, and professional practice."*

Management Engineering Activity in the 1950s: The formation of the Society was preceded by increasing amounts of management engineering activity in healthcare, for the 1950s were years in which the teachings of Taylor and Gilbreth began to attract the attention of hospital leaders. During this decade, isolated attempts to improve hospital methods and procedures were converted into an organized methods improvement movement. In 1952, three major events occurred. The American Hospital Association (AHA) established its Committee on Methods Improvement; Lillian M. Gilbreth, Ruth P. Kuehn, and Harold E. Smalley organized and conducted a two-week workshop on hospital work simplification at the University of Connecticut; and Earl J. Frederick became the first full-time hospital management engineer when he was employed jointly by the Cleveland Clinic and St. Luke's Hospital (Cleveland). The goal of these early efforts, which served as a foundation for HMSS for years, was the improvement of services to patients and the reduction of costs.

Drs. Harold Smalley, Lillian Gilbreth, and John Freeman (Charter Member and Past President)
(February 1965)

AHA's Committee on Methods Improvement: This committee reviewed and publicized early methods improvement activities, and during the late 1950s, the AHA Committee conducted a series of basic institutes in various parts of the country to familiarize those in the field with methods improvement principles and techniques.

First Hospital Management Engineering Department: Harold E. Smalley, who had conducted the Connecticut workshop in 1952 and had been a member of the AHA Committee on Methods Improvement while at the University of Pittsburgh Health Center, served as the Assistant to the Vice Chancellor of Health Professions. He conducted methods improvement work at Children's Hospital of Pittsburgh and, as a result and at the behest of the Assistant Executive Director of the hospital, recruited Edward Gerner from J&L Steel in 1956. This distinguished Gerner as the second hospital management engineer in the country and the first to establish a management engineering department.

During the period of 1956 through 1960, hospital management engineering practitioners were seeking an avenue to allow easy exchange of ideas, particularly to encourage discussions of project studies and approaches among them, while the AHA focused on marketing the profession to hospital administrators. This difference in approaching the profession stimulated sowing the seed for HMSS.

New Profession: With an interest in the newly founded profession, Harold Smalley, Ed Gerner, Dick Dudek (industrial engineering professor from Texas Tech), and a few others met several times over the years in Baltimore and Atlantic City, in conjunction with the annual Middle Atlantic Health Congress in the late 1950s. These meetings became organizational development sessions for what was to become HMSS. *The organization was founded in 1961 to foster the continual improvement of hospital management systems through organized programs of research, education, and professional practice.* Dr. Smalley moved from the University of Pittsburgh to Georgia Tech in 1958.

AHA Conference for Hospital Management Engineers: In 1960, the AHA Committee began to de-emphasize basic institutes in favor of a program to cooperate with and assist hospitals that had established professional methods improvement programs. Specifically, the AHA Committee sponsored an Invitational Conference of hospital management engineers in Chicago in May, 1960, followed by the first annual three-day Advanced Institute, which was held at AHA headquarters in Chicago in March, 1961.

1961 – HMSS Constitution Drafted

Foundation of HMSS: In collaboration with information and management colleagues at Georgia Tech, including Howard W. Woods, John R. Freeman, A.D. Joseph Emerzian (University of Connecticut), and Pamela M. Hendrix, Dr. Smalley designed a questionnaire to test the extent of interest in forming a new society. In May 1961, this questionnaire was sent to 50 persons known to be involved in hospital management engineering, and favorable responses from 37 practitioners and educators led to the decision to proceed with preliminary plans for a new society. Using the information from the questionnaire responses and from other contacts and sources, ad hoc committees were formed to draft provisions of a constitution.

Participating in this committee work were William T. Delamar, Edward J. Gerner, Carl F. Thielmann, Frank A. Sorad, A.D. Joseph Emerzian, and Howard W. Woods. Significant input was also received from John R. Freeman, Fred W. Green, George L. Deschambeau, and Gerald Nadler.

Constitution Drafted: During October 1961, a constitution was drafted and circulated for review and comment. The Constitution of the Hospital Management Systems Society was certified at Society headquarters on the campus of the Georgia Institute of Technology on November 1, 1961, with a proviso that persons admitted to membership within two months of that date would be considered to be Charter Members.

Membership Categories: Membership application forms were sent from the Atlanta headquarters to all persons believed to be interested in this new society. The first application was received on November 6, 1961, from Edward S. Ferrell, who was admitted as a Full member on November 22, 1961. Initially, there were five membership categories: Full, Associate, Affiliate, Honorary, and Commercial. Only Full and Associate members (graduate industrial engineers) had the right to vote. Overtures were made by the American Institute of Industrial Engineers (AIIE) in 1961 for the new organization to affiliate with the Institute.

Charter Membership: The total of 47 persons admitted as Charter members in November and December, 1961; they were John M. Aungst, Edward J. Gerner Jr., Gerald Nadler, Russell L. Baker, Fred W. Green, Edward H. Noroian, W. Daniel Barker, John F. Harrigan, Phillip Bassin, Addison C. Bennett, Pamela M. Hendrix, Albert L. Samis, George F. Bird, Allen M. Hicks, John H. Schill Jr., Erwin O. Blair, John A. Hildebrand II, Harold E. Smalley, Mark S. Blumberg, Daniel Howland, Frank A. Sorad, Edward H. Burnet, W. R. Hudson, George R. Strode, Louis E. Davis, Frank T. Kubic, Carl F. Thielmann, William Delamar, Ruth P. Kuehn, Eugene D. Vodev, George L. Deschambeau, David Littauer, Paul M. Wallack, A. D. Joseph Emerzian, Stanley G. McIntyre, C. W. Whitston, Edwin B. Feldman, Joseph V. McKenna, L. Thomas Wilburn Jr., Edward S. Ferrell, Wilbur C. McLin, Daniel F. Woolf, John R. Freeman, Margaret M. Meenan, Howard W. Woods Jr., Richard B. Freibrun, and E. David Mellits.

First HMSS President: Agreeing to serve as temporary officers of HMSS until the first national convention were president-Edward J. Gerner, Jr.; vice-president-Edward H. Noroian; secretary-Joseph V. McKenna; treasurer-George L. Deschambeau; executive director-Harold Smalley; Membership Committee-George Strode and Howard W. Woods Jr.; Program Committee-Leo M. Cavanaugh; Nominating Committee-George Bird, William T. Delamar (chairman), and Edward S. Ferrell; Election Committee-Frank A. Sorad, and Carl R. Thielmann.

1962 – First National Convention Held in Baltimore

The Charter membership classification was closed January 1, 1962. The official constitution, with the names of the forty-five Charter members[1] who were admitted, was distributed on January 31, 1962.

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[1] There is a discrepancy in the number of Charter Members as provided by the original history document (47) and as provided by the proceedings of the April 1, 1962 National Convention (45). One might surmise because there were 47 who joined between November and December 1961 and 45 as of January 1, 1962, that perhaps of the original 47, two dropped out prior to 1962. Unfortunately, attempts made to determine the reason for this difference did not result with an answer.

Between then and March 31, 1962, nine more members were admitted, making a grand total of 54 members. They were classified as 26 Full members, eight Associate members, 14 Affiliate members, 6 Commercial members, and no Honorary members.

Publications - Newsletter: An interim newsletter was issued by the executive director to the membership on March 5, 1962. Items covered were the executive director's trips to Pittsburgh and Chicago to discuss Society business with its members, plans for the forthcoming national convention and AHA Advanced Institute, and internal Society operations.

Topics under discussion were the possible affiliation with the American Institute of Industrial Engineers (AIIE) and the American Hospital Association (AHA), and committee appointments for 1962-63. The first issue of the official newsletter, edited by J. V. McKenna, was distributed to the membership in late March 1962. (The Society has published an official newsletter on a quarterly or more frequent basis since then.)

National Convention: The first National Convention was conducted on April 1, 1962, at the Emerson Hotel in Baltimore in conjunction with the AHA Advanced Institute on Methods Improvement. Edward J. Gerner was elected president for 1962-63, and Harold E. Smalley was elected executive director. Other national officers elected for that year were Edward H. Noroian, vice president; J. V. McKenna, secretary; and George L. Deschambeau, treasurer. Officers served from the National Convention at which they were elected until the following National Convention.

Baltimore Resolution: The primary topic of importance at this meeting was the adoption of the "Baltimore Resolution"[1] which established a special committee to negotiate with the AHA concerning affiliation. (The full text of the resolution can be found in Appendix I.) This committee was to request that AHA establish a personal membership department for "management systems" and to allow the Society to maintain maximum autonomy of membership requirements and admissions. The committee was also to contact the AIIE concerning affiliation with that organization.

HMSS Seal: Under the leadership of Frank T. Kubic, the Seal Committee was responsible for developing a seal for the Society. Dr. Smalley asked that a seal be selected that would be simple and dignified and be compatible with the tone of the "management improvement movement and the Society." There were a number of suggested seal designs and one was selected.   It was agreed to refer the elements of this choice to Natalie Emerzian (wife of A. D. Joseph Emerzian) for design of the Society's original official seal, which was adopted in August 1962. The symbols displayed on the seal were the lamp of knowledge, the cross representing the hospital field, and an orbit of process chart symbols denoting modern professional practice in the age of electronics.

Treasurer's Report: George L. Deschambeau gave the Treasurer's report for the period of October 4, 1961 through March 31, 1962. Income was $670 and expenses were $82.97 for a net of $587.03. Based on a dues structure of $20 for full members, $15 for associate members, and $10 for affiliate members, $476.00 was in receivables.

Hospital Management Systems Society

225 NORTH AVENUE, N.W.
ATLANTA 13, GEORGIA

NATIONAL OFFICERS 1962-63:

OFFICIAL SEAL ADOPTED 8/62

The lamp is the lamp of knowledge representing the emphasis placed upon research and education as applied to the hospital field represented by the cross. The process chart symbols represent industrial engineering and the orbiting of the symbol.::; denote modern professional practice in the age of f'lf't:tronics. The symbolism is tied together suggesting the systems approach in thP solution of hospital problems.

Edward J. Gerner, *Jr.*
PRESIDENT

Edward .H. Noroian
VICE-PRESIDENT

J. V. McKenna
SECRETARY

George *L. Deschombeau*
TREASURER
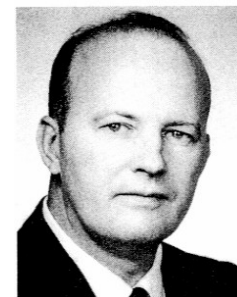
Harold E. Smalley
EXECUTIVE DIRECTOR

HIMSS Roster: The official HMSS roster, dated April 25, 1962, indicated 59 members with representation by states as shown below.

Number Members - April 1962
Total = 59
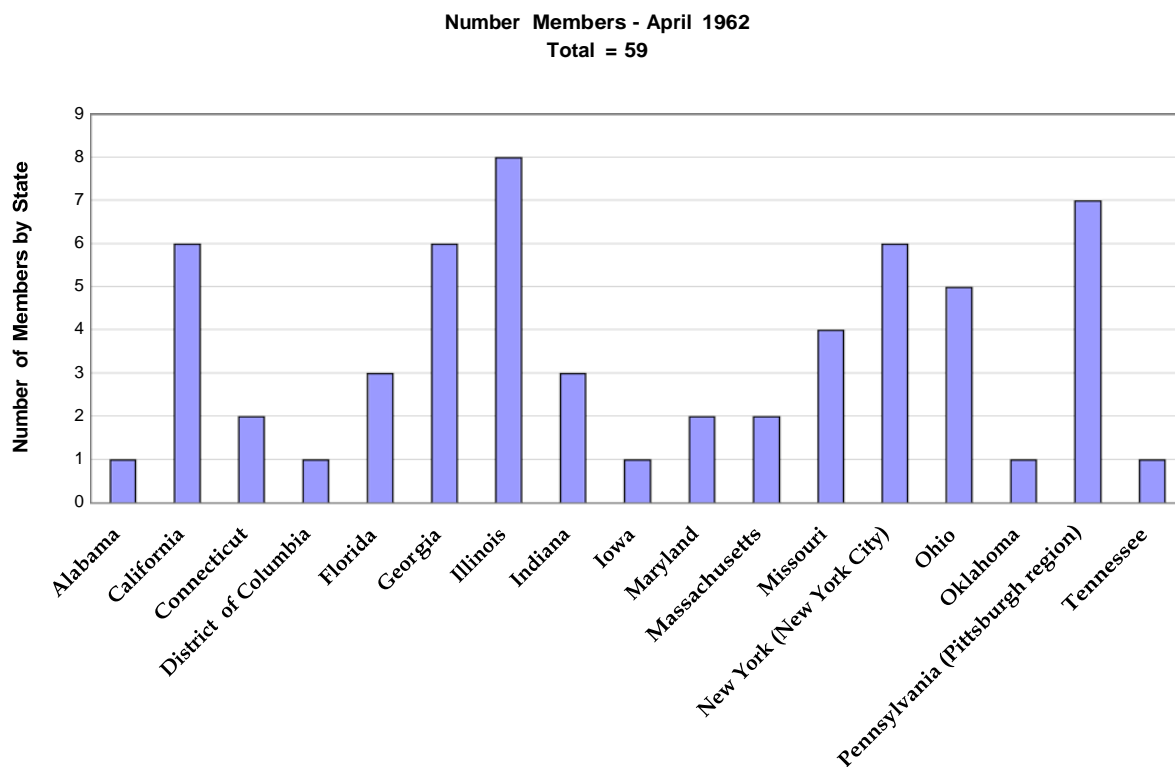
Membership Composition by Classification
April 25, 1962

Associate Member 14%

Affiliate 27%

Full Member 45%

Commercial 14%
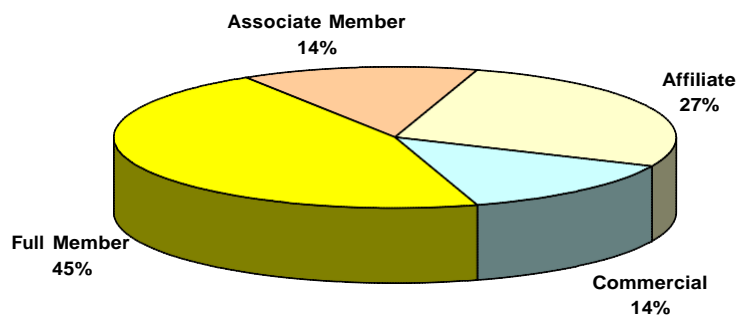
NOTE: Affiliates were administrators and nurses with a serious interest in methods improvement in hospitals

1963 – Second National Convention Held in Chicago

The second National Convention was held in Chicago in May, 1963, in conjunction with the AHA Advanced Institute on Methods Improvement. George Deschambeau was installed as president for 1963-64. Other officers included Fred W. Green, vice president; Edward S. Ferrell, secretary; Frank A. Sorad, treasurer. Harold E. Smalley continued as executive director.

The Society was dealing with growing pains.
- John Freeman reported that the national office in Atlanta had handled more than 6,000 items of correspondence and mailing.
- Karl Bartscht was asked to inquire about the interest of the University of Michigan in establishing an information center to work with the Society in providing a repository for management engineering reports.

Publications: The first research bulletin was published in 1963, and through its publication committee, other research results were issued periodically.

1964 – National Headquarters Moved to Chicago

The national headquarters' move from Georgia Tech to offices of the Chicago Hospital Council in the AHA Headquarters building on April 1, 1964, was announced to the members.

At the third National Convention in New York City in June 1964, the elected officers were William T. Delamar, president; Edward H. Burnet, vice president; L. Thomas Wilburn, secretary; Edward S. Ferrell, treasurer; and Harold E. Smalley, executive director. Dr. Ruth Keuhn was unanimously elected as the first Honorary member of the Society.

Code of Ethics: A code of ethics was developed by the Professional Practice Committee at this meeting and accepted by the members on March 8, 1965 (see Appendix II). Twenty-three proposed constitutional amendments were approved.

Collaborative Efforts: The announcement of the formation of the "Cooperative Information Center for Hospital Management Studies" at the University of Michigan under a grant from the W. K. Kellogg Foundation was welcomed. Society members would receive free copies of its publications during its first year. The Society during this period was active in assisting in the formation of the Hospital Division of AIIE, which was officially established on May 15, 1964, under the leadership of Fred W. Green.

AHA Affiliation: Efforts to become affiliated with the AHA were less successful than other collaborative initiatives established this year. After considerable discussion, AHA notified the Society in 1964 that there was no budget or personnel to accept additional affiliated societies. Nevertheless, the Society continued, as it had since its formation, to cosponsor AHA Advanced Institutes on Methods Improvement, which were held at the same time as the national conventions.

1965 – National Convention Held in Chicago

The Fourth Annual National Convention was held in Chicago in May 1965. The following officers were elected for the 1965-66 term: Edward H. Burnet, president; Addison C. Bennett, vice president; Karl G. Bartscht, secretary; Edward S. Ferrell, treasurer; and George Deschambeau, executive director.

The newsletter and the employment opportunities service continued to be conducted from Dr. Smalley's office at Georgia Tech, with John Freeman as newsletter editor. Matthew F. McNulty Jr., was elected the second Honorary member.

1966 – HMSS Affiliated with the American Hospital Association

San Francisco Resolution: At the Fifth Annual National Convention held at the Fairmont Hotel in San Francisco in May 1966, it was announced that the AHA Committee on Personnel Administration had joined other AHA committees to encourage the Society's affiliation. Affiliation with AHA was now a definite possibility.

As a result, the pros and cons of affiliation were discussed during the meeting. The "San Francisco Resolution" reaffirmed the Society's posture as previously stated in the "Baltimore Resolution" and a new committee was appointed to pursue the negotiations with AHA. Advantages identified included paid staff, while difficulties included having to work within a bureaucracy, having to give up an independent treasury, and possibly altering the organizational structure. The Society wanted to able to establish its own requirements for membership, subject to approval of the AHA.

National Officers: Edward Gerner, the Society's first president, and Harold Smalley were recognized for their leadership roles during the conference. The national officers elected were Fred W. Green, president; Karl G. Bartscht, vice president; John R. Freeman, secretary; Addison C. Bennett, treasurer; and George L. Deschambeau, executive director. In other action at the meeting, full membership in the Society was opened to include consultants who qualified for AHA membership and to analysts and technicians who successfully completed an approved course of study. Lillian M. Gilbreth was named the third Honorary member.

AHA Affiliation: On December 15, 1966, the Board of Trustees of AHA accepted the petition of the Society for affiliation. Members of the Society who were not also members of AHA were sent applications forms for AHA membership. Dual memberships were maintained for two years before a single membership application was adopted. Affiliation with AHA gave the Society strength and stability, and together with a relaxation of membership requirements, a broader membership base.

1967 – Bylaws, Rules and Regulations of HMSS Approved

The Bylaws, Rules, and Regulations of the HMSS of AHA were approved May 9, 1967, by the independent Society with the understanding that certain provisions of its constitution would be respected even though such provisions were not stated in the Bylaws.

In May 1967, the Sixth Annual National Convention was held in Toronto, Ontario. A plaque was presented to Harold Smalley in appreciation for his efforts in the formation of the Society. The first paid secretary of the Society, replacing the voluntary executive director position, was William J. Van Cleve, director of the Division of Personnel Management at AHA. The 1967-68 national officers and board members were George Deschambeau, president; John R. Freeman, president-elect; Karl G. Bartscht, Addison C. Bennett, Patric E. Ludwig, and L. Thomas Wilburn Jr., board members.

1968 – New York Became First Affiliated Chapter

The Seventh Annual National Convention was held in Tampa, Fla., in May 1968. The national officers and board members consisted of John R. Freeman, president; Addison C. Bennett, president-elect; William T. Delamar, George Deschambeau, Fred W. Green, Patric E. Ludwig, and David R. Shaw, board members.

New York Chapter: The formation in New York of the first officially recognized affiliated chapter of HMSS, the Hospital Management Systems Society of Greater New York, was announced. The chapter was also an affiliate of the American Institute of Industrial Engineers – Hospital Division (Tappan Zee Chapter). Bill Staib served as its first president. Its members were from the boroughs of New York City, Long Island, and New Jersey.

The official affiliation agreement was signed with the AHA on October 21, 1968.

Publications: It was announced that the AIIE Book of the Year Award went to Harold E. Smalley and John R. Freeman for *Hospital Industrial Engineering*.

1969 – Full Membership Requirements Broadened

The Eighth Annual National Convention was conducted in Houston in May 1969. The elected officers and board members were Addison C. Bennett, president; Patric E. Ludwig, president-elect; Karl G. Bartscht, John R. Freeman, Richard M. Grimes, David H. Harris, and David R. Shaw, board members.

Highlights of this convention included a change in the name of the Advanced Institute on Methods Improvement to the Institute on Hospital Management Engineering. Full membership requirements were broadened to include any person, regardless of educational qualifications, who was actively and substantially engaged in programs of research, education, or professional practice in the field of hospital management systems.

1970 – HMSS Fiscal Year Changed to Calendar Year

The Ninth Annual National Convention was held in February 1970 in New Orleans. Through a change in the bylaws, the Society's year was changed to coincide with the calendar year. Consequently, the 1969-70 officers continued in office through calendar year 1970.

HMSS and AIIE Programming: Between 1964 and 1970, one of the major activities of the Hospital division of AIIE was to conduct technical programs as a part of the AIIE Annual Conference held in May of each year. In 1970, the division held the first Divisional Conference within the AIIE program. This meeting was held in New Orleans just prior to the HMSS-sponsored Institute on Hospital Management Systems. Thus was spawned the beginning of a pattern of Annual Systems Conferences, jointly sponsored by the two organizations.

The opportunity to attend a full week of hospital-oriented technical papers caused this joint annual conference to become the major technical meeting in the field of hospital management engineering. Activities of the previous year recounted at this meeting included:

- Publication by the AHA of Management Engineering in Hospitals;
- Description of hospital management engineering written by members of the Society;

  And

- Development of the Multi-hospital Management Engineering Program Directors Committee and its sponsorship of an International Conference for Directors of Multi-hospital Programs.

Awards: At this convention, the first Literature Award was presented.

1971 – HMSS Collaborated with AHA on Educational Initiatives

The 10th Annual National Convention was held in Denver in February 1971. The 1971 officers and board members consisted of Patric E. Ludwig, president; David H. Harris, president-elect; Addison C. Bennett, Richard M. Bramblett, Richard M. Grimes, Ben W. Latimer, and James B. Mathews, board members.

Programs and People: The Education Committee reported that it had worked with AHA educational coordinators on six institutes in addition to the Institute on Hospital Management Systems. John R. Freeman announced that, due to time commitments associated with his move from the academic to the business world, he could no longer edit the newsletter. Steven Friedman, the new secretary replacing William J. Van Cleve, was appointed as editor of the newsletter.

1972 – HMSS Membership Criteria Expanded

The 11th Annual National Convention was held in San Francisco in February 1972. The 1972 officers and board members were David H. Harris, president; Ben W. Latimer, president-elect; and Richard M. Bramblett, Barton R. Burkhalter, Patric E. Ludwig, James B. Mathews, and Kenneth Pierce, board members.

Members in Computer Information Systems: The primary discussion focused on whether the AHA should actively pursue the development of the Society for Computer Information Systems. A subcommittee was appointed to look into hospital productivity. The committee later reported that a separate society was not needed and that these individuals could be attracted to the existing society.

National Cooperative Services Center: Colin Churchill, director of the Hospital Research and Educational Trust, announced to the members that the W. K. Kellogg Foundation had agreed to fund a modified version of the proposal submitted by the Society to develop a National Cooperative Services Center for Hospital Management Engineering.

Member Services: New criteria for the formation and approval of affiliated chapters were mandated by the board of directors. These criteria were developed to clarify the role of affiliated chapters and their relationship to the national Society, as well as to ensure reasonable uniformity and consistency in chapter organization and recognition.

1973 – Educational Meeting Name Changed

The 12th National Convention was held in February 1973 in Atlanta. The national officers and board members were Ben W. Latimer, president; Barton R. Burkhalter, president-elect; Robert N. Davis, William T. Delamar, Julius Spivack, and Wilson L. Williams, board members. The name for the HMSS portion of the joint educational meeting was changed from the Institute on Management Systems to the First Annual Systems Conference.

1974 – Bylaws Changed to Institute Regional Directors for HMSS Board

The 13th Annual Convention was held in Houston in February 1974.

Bylaws Change: The bylaws were changed again to reflect the concept of regional directors as a result of concern for a geographical imbalance on the board of directors when everyone was elected at large. The board was to consist of president, president-elect, two directors at large and four regional directors. The 1974 officers and directors at large elected were Barton R. Burkhalter, president; Julius Spivack, president-elect; Anthony F. Licata, secretary; Robert N. Davis and Wilson L. Williams, board members. The regional directors were Region I-William G. Flagg; Region II-John F. Roche; Region III-Michael J. May; and Region IV-John H. Eaton.

Southeast Wisconsin Chapter: The Southeast Wisconsin Chapter became an affiliated chapter in 1974. It began in 1972 as the Society of Hospital Management Engineering by co-founders Joe Steiner and Mohan Kirtane, and meetings were held at the University of Wisconsin, Milwaukee.

Delaware Valley Hospital Management Systems Society: The Delaware Valley Hospital Management Systems Society (DVHMSS) was created in 1974 through the vision of Peter Ryerson (Pennsylvania Hospital) and the support of several directors of management engineering/systems in the Delaware Valley region (southeastern Pennsylvania, southern and central New Jersey and the state of Delaware, including John Werner (Graduate Hospital), Reid Hoadley (Albert Einstein), Fred Neulander (Univ. of Pennsylvania), Doug Bly (Medical Center of Delaware), Frank Milewski (Thomas Jefferson University), Bruce Herpich (Temple University), and Tony Finnamore (Lehigh Valley Medical Center).

This group was comprised largely of members of HMSS. It developed close relationships with the Delaware Valley Hospital Council, Blue Cross of Greater Philadelphia, the consulting services division of the Hospital Association of Pennsylvania, and the Management Engineering and Cost Control Services (MECCS) of the New Jersey Hospital Association. Several guest speakers were provided from these organizations.

1975 – Task Force on Society Structure Appointed

The 14th Annual Convention was held in Long Beach, Calif., in February 1975.

Board of Directors: The board of directors for 1975 were Julius Spivack, president; William G. Flagg, president-elect; John H. Eaton, as director at large; and Louis E. Placella, Gerald C. Macks, Louis E. Freund, and Larry D. Grandia as regional directors. It was announced that Glenn C. Anderson had replaced Anthony F. Licata as secretary, but had resigned just prior to the annual meeting. After a brief interim appointment of Donald Tichenor as acting secretary, Robert C. Buldak was appointed secretary in summer 1975.

President's Objectives: Due to the relative inactivity of previous years, the president announced as his objectives for the year: appointing a task force on Society structure; having the president-elect develop a 1976 budget; and promoting the Society as an advocate of management engineers in the field.

Professional Practice Considerations: The Professional Practice Committee surveyed the membership and announced salary and other statistical information. The same committee also raised the question of certification of management engineers, feeling that the professional license for engineering was not adequate to define practitioners in the field.

1976 – Society Published First Annual Conference Proceedings

The 15th Annual Convention was held in Colorado Springs, Colo., in February 1976. William G. Flagg became president, and the new officers were elected as follows: Louis E. Placella, president-elect; Louis E. Freund, director at large; and John E. Rueckert, W. Thomas Winn, Nat Goodman, and Ronald D. Ellingson as regional directors. John Eaton continued as director at large. A committee was appointed to work at strengthening the relations with AIIE.

Proceedings from Conference: For the first time, the papers presented at the conference were published as proceedings available to conference participants.

Annual Essay Contest: The First Annual Essay Contest sponsored by the Society was won by Karl G. Bartscht. About 150 members attended the conference.

Center for Hospital Management Effectiveness: On March 1, 1976, the National Cooperative Services Center for Hospital Management Engineering was consolidated with the AHA Division of Management Effectiveness under Richard P. Covert, PhD, to become the Center for Hospital Management Engineering within AHA. As the Society was also in the Division of Management Effectiveness, increased cooperation was anticipated. The Society's Public Relations Committee established a speakers' bureau, organized by subject and region.

Annual Salary Survey: The original Annual Salary Survey was conducted for the Society by the Yale-New Haven Hospital Management Engineering Department of which Mark Tepping was director. This resource continued to produce the survey for the next several years.

Chapters: As of April 25, 1976, there were 11 active affiliated chapters. The 11 chapters were Atlanta, Greater Chicago, Greater New York, Indiana, Iowa, Intermountain (based in Salt Lake City, UT), Kansas City, Minnesota, South Florida, Tennessee, and Wisconsin.

1977 – Chicago, Indiana Chapters Established Annual Midwest Conference

The 16th Annual Convention was held in St. Petersburg, Fla., in 1977.

Board of Directors: The officers were Louis E. Placella, president; John E. Rueckert, president- elect; Ronald D. Ellington, director at large; and Alan J. Goldberg, Ronald T. Upham and Chester W. Bradley as regional directors. Louis E. Freund continued as director at large. Bruce J. Tianen joined the staff of AHA in March 1977 as staff specialist in the Department of Management Resources with appointment as director (formerly secretary) for the Society and staff for the Center for Hospital Management Engineering.

Publications: The AHA published Selections and Employment of Health Care Consultants, a booklet written by the Proprietary Consultants Committee of the Society.

Member Services: The Chicago and Indiana chapters held the First Annual Midwest Conference in fall 1977. The board of directors had contracted with Opinion Research Corporation of Chicago for an in-depth survey of member attitudes and needs.

The Society developed and implemented an aggressive marketing campaign to grow the membership, and printed 20,000 brochures. This was the first campaign in four years. Before the campaign the Society had 1,100 members with the following category classification:

Management Engineering…37.9%	Health Care Planning…4.7%
Hospital Administration…23.1%	Financial Management…3.5%
Health Care Consultants…14.8%	University Professors…1.9%
Information Systems/Data Processing…11.5%	Other…2.6%

1978 – Richard P. Covert Appointed Director of Society

The 17th Annual Convention was held in Biloxi, Miss., in February 1978.

Board of Directors: The president was John E. Rueckert. New board members consisted of Alan J. Goldberg, president-elect; Ronald D. Ellingson, director at large; and Raymond J. Hanson, Jr.; Harold E. Smalley, PhD, Thomas C. Waterman, and Paul O. Allen as regional directors. Leonard B. Fox, III was the carry-over director at large.

Long-range Planning: The board of directors, recognizing the need for long-range planning, spent much time developing a mission statement and goals for the Society. The board, by

necessity, had spent much time on meeting planning to improve an AHA-led process that had resulted in hotel selections being made without up-to-date information. The new process reached out to other AHA societies to establish a database of recent experiences and involved Society members who lived in the city where the meeting was planned.

Society Director: Bruce J. Tianen resigned from his position as director in August 1978. Richard P. Covert, PhD, became acting Society director until December 21, 1978, when he was appointed director of the Society as well as director of the AHA Center for Hospital Management Engineering.

Chapters: The seed was sown for a new chapter to serve central and western Wisconsin with the promulgation of hospital management engineering and the trend for more communities, in addition to large metropolitan areas, to embrace the discipline. The Dairyland chapter (formerly chartered as the Greater Madison chapter) began in Madison. Barry T. Ross served as its first president. Early members came from four non-federal Madison hospitals, hospitals in LaCrosse and Eau Claire, and students from the University of Wisconsin.

1979 – Annual Convention Held in Tucson

The 18th Annual Convention was held in Tucson, Ariz., in 1979.

Board of Directors: As a result of the election, the board for 1979 was Alan J. Goldberg, president; Raymond J. Hanson, president-elect; Thomas C. Waterman and Ronald D. Ellingson, directors at large; and regional directors, Peter J. Ryerson, Howard Mintz, Merrill W. Leman, and W. John Watts.

1980 – Planning Begun for Future Expansion

The 19th Annual Convention was hosted in Lake Buena Vista, Fla., in February 1980.

Board of Directors: Joining president Raymond J. Hanson, Jr., and director at large Thomas C. Waterman were president-elect Merrill W. Lehman; director at large W. John Watts; and regional directors Mark Tepping, Justin A. Myrick, PhD, Alvaro E. Pertuz, and Eugene J. O'Hea. The consultant's referral service of the Proprietary Consultants Committee became operational in 1980, and more than 500 requests for departmental listings were sent out.

Code of Ethics: The code of ethics was revised in July 1980.

Growth of the Society: As 1980 ended, the Society appeared ready for another spurt of activity and growth. An effort was planned to reach the professionals interested in management information systems. The board discussed ways to institute regional conferences, and a long-range planning committee extended the mission of the Society (as developed by the 1977 and 1978 board of directors) into a continuous, three-year-long-range plan of activity.

AHA Non-deficit Budget: The AHA required that the societies present and maintain each year a non-deficit budget and financial condition. While the Society had maintained such a position since 1977, there was no question that it strongly influenced the decisions of the board of directors and, hence, the direction of the Society. Also, nine of the Society presidents from 1971-80 either currently or previously had worked for state hospital associations. These state associations had their own or endorsed management engineering programs, which dominated the

field in the 1970s. The state hospital associations were aligned with AHA, thereby putting additional pressure on the Society leadership to meet this non-deficit budget directive.

1981 - Impetus for Information Systems Recognition

20th Anniversary: November 1981 marked the 20th anniversary of the formation of the Hospital Management Systems Society. Although the possibility of special activities at the 20th Annual Convention held in New Orleans in February 1981 was discussed, no special notice of this anniversary was celebrated.

Information Systems (IS) in Hospitals: However, the emergence of information systems in hospitals *was* recognized. Ned Simpson and Tom Durel introduced a "Where's Moses?" campaign. The significance of this catch phrase campaign was the need for a leader to bring the small, scattered pockets of hospital IS professionals to the Promised Land, i.e., HMSS.

Board of Directors: The board that year consisted of Merrill W. Lehman, president, assisted by president-elect Justin A. Myrick, PhD; directors at large Mark Tepping and W. John Watts; and regional directors Dennis P. L'Heureux, Barbara Gerhardt, Robert J. Durej, and Larry E. Shear, PhD. The primary discussion of the board in 1981 was the growing importance of management information systems and the relation of persons responsible for their installation and operation to the Society. Somewhat predicative of this discussion was the appointment of Dennis L'Heureux, a management systems engineer, as CIO of UMASS Medical Center later that year. Dennis may have represented the first CIO to serve on a HMSS board.

IS Task Force: The Task Force on Information Systems pointed out that IS professionals have different needs from practicing management engineers, and the board of directors reaffirmed the multi-disciplinary nature of the Society. The board noted the Society's and its members' continued involvement in both use of computers and in development of information systems. The task force provided the subsequent conference program director a track on information systems for the 10th Annual Systems Conference held in conjunction with the 21st Annual Convention and meeting in San Diego, Calif. in February 1982.

Management Engineering Committee: In other activity during the year, the in-house Management Engineering Committee developed a "Resource Hotline" of individuals who were willing to be consulted by telephone on specific hospital topics.

1982 – Society Committees Restructured

The 21st Annual Convention was held in San Diego in February 1982.

Board of Directors: The board of directors for 1982, led by president Justin A. Myrick, PhD, included returning director at large Mark Tepping and president-elect Robert J. Durej; director at large Dennis L'Heureux; and regional directors John P. Werner, Charles W. Overstreet, Barry T. Ross, and Steven Pettigrew.

Committee Restructuring: President Myrick restructured the committees for the Society, combining committees that dealt in similar concepts and recognizing that some committees no

longer performed viable functions. A bylaws revision committee was established to make necessary change—both those requested by the AHA, and those resulting from member dissatisfaction with the nomination and election procedures for the board of directors. They proposed, for member approval in 1983, a nine-member board of directors with eight members elected for two-year terms on a staggered basis.

Education: The Society added to its educational programs by offering the College of American Pathology's Workload Recording Methodology to cover the costs of the Society's representative on the CAP Workload Recording Committee and by holding a two-day regional conference in conjunction with the Delaware Valley Hospital Management Systems Society.

Publications: The Society published *Hospital Departmental Profiles*, edited by Alan J. Goldberg, the first Society publication since 1978. In August, 1,500 copies were printed and 1,300 copies sold by January 1983, which exceeded expectations. The first edition sold 4,000 copies. The second edition expanded the book with an initial press run of 3,000 books published in 1986. The third edition of the book was published in 1990, which doubled in length and had a total press run of 7,500.

Chapters: Due to an outward migration of hospital management engineering practitioners from the New York City area, the first affiliated chapter, the Greater New York Chapter, had become defunct.

As of February 1982, HMSS had 15 affiliated chapters:

Atlanta	**Australia**	**Delaware Valley (Pennsylvania)**
Greater Chicago	**Greater Houston**	**Greater Madison (later renamed Dairyland)**
Indiana	**Intermountain**	**Iowa**
Kansas City	**Michigan**	**Minnesota**
Southern California	**Tennessee**	**Wisconsin**

Midwest Conference: In summer 1982, the Annual Midwest Conference was held in Chicago. The collaborative event was co-sponsored by the Indiana, Chicago, Southeastern Wisconsin, Greater Madison (WI), and Minnesota affiliated chapters.

Chapters: The Western Pennsylvania chapter was formed in Pittsburgh in 1982 by Ed Gerner, Tom Gentile, Al Allison, and Walt Ditmer, who were engaged in hospital administration and management engineering in Pittsburgh hospitals. Ed Gerner was a Charter member of the Society and served as the first HMSS president in 1962. Tom Gentile served as the chapter's first president.

The Delaware Valley Hospital Management Systems Society (DVHMSS) that was founded in 1974 formally became an affiliated chapter of HMSS in 1982. The chapter also began to attract the interest and attention of local directors of information systems and healthcare administrators.

1983 – First Formal Long-range Plan Developed

Annual Convention: In 1983, the 22nd Annual Convention, held February 8-10 in Atlanta, was followed by regional meetings in Detroit in July and in Salt Lake City in September. At the regional meeting in Salt Lake City, one of the first exchanges of data among multi-hospital management engineering programs took place.

The 1983 annual conference in Atlanta marked the first time that vendors were invited to exhibit. Ten vendors had table top exhibits. Included were tools for cost accounting.

Board of Directors: The 1983 board of directors consisted of Robert J. Durej, president; Dennis P. L'Heureux and John P. Werner, directors at large; Barry T. Ross, president-elect; and newly elected directors Jack A. Gilbert, Roger S. Hendry, Peter J. Ryerson, and Robert B. McDonald.

Board Restructured: In 1983, members overwhelmingly approved the amendments to restructure the board that were proposed by the Bylaws Revision Committee in 1982 to increase regional representation.

As a result, the board was transformed to one consisting of:
- The president;
- One director from each of eight regions, elected for two years on a staggered basis; and
- Four incumbent directors who would be candidates for president-elect and the newly formed position of vice president, during their second year in office.

Chapters: Additionally, an amendment to Article 10 of the HMSS bylaws was approved by the membership to strengthen the ties between HMSS and its affiliated chapters. A methodology was developed and adapted to select the "Chapter of the Year."

First Long-range Plan: Throughout 1983 and through the coordination and vision of the president-elect, the Society developed its first formal set of long-range plans:
- The bylaws revisions assigned the president-elect to head the long-range planning efforts, which led to the need for a vice president to assist the president with the other Society activities.
- It became the responsibility of the president-elect to execute the plan for his/her year serving as president.

The plans included goals:
- To increase the Society's fiscal viability;
- To increase the benefits of belonging to the Society; and
- To stress the multidisciplinary role of the Society by meeting the needs of and recruiting all types of professionals in healthcare systems.

Specific objectives of the first long-range plan included:
- Establishing a student scholarship;

- Implementing a recognition program for member contributions to the Society;
- Developing stronger relationships with affiliated chapters;
- Being an advocate for hospital management systems, which included strategic partnerships with other groups; and
- Establishing a home for the developing IS constituency.

Scholarship Program: Since it was felt that the future of the Society and the health management systems disciplines would be in the hands of future members, the plan called for encouraging growth in student involvement. The plan identified several initiatives to achieve this, including implementation of a scholarship program.

Recognition Program: Deliberation occurred as to the form the recognition program should assume, i.e., purely recognition for service to the Society, chapters, and the profession versus attesting to a member's expertise through credentialing. For a variety of reasons, it was decided that recognition for service would be the option.

This rationale was based on factors including the AHA's position on credentialing due in part to potential legal issues, the time and expense associated with an effective credentialing program, and who the subject experts would be, since the Society had many long-time, experienced professionals, and these individuals would determine whether other qualified, experienced practitioners should be credentialed.

IS Committee: Heretofore, there had been no formal representation of the growing IS constituency. As a result, an IS Committee was identified by the plan to parallel the existing Management Engineering Committee.

Center for Hospital Management Engineering (CHME): In September, 1983, the AHA placed the CHME in HMSS, and, as a consequence of other organizational changes, also gave HMSS full responsibility for the CHME proceedings and information clearinghouse activities, and the resulting revenue.

Publications: The Management Engineering Committee published "Establishing an In-House Management Engineering Function" to assist hospital administrators who were considering establishing management engineering departments. Co-authors were Mitchell P. Perlin, Mark A. Tepping, Barry T. Ross, and Richard Gendel.

1984 – Membership Levels and Scholarship Programs Enacted

The annual meeting in 1984 was held in San Francisco on February 8-10. Cost accounting in healthcare was received special attention at the conference. With the 1983 Prospective Payment System under President Reagan, it was becoming more important that providers have a means to determine their costs.

Board of Directors: The 1984 board of directors, installed at the 1984 annual meeting in San Francisco, consisted of Barry T. Ross, president; Peter J. Ryerson, president-elect; John P. Werner and Roger S. Hendry, directors at large; and regional directors Robert A. Harris, Diane Harrison, Robert D. Gunn, and Phillip W. Herren. This board executed the first year's activities specified in the long-range plan.

Special Interest Groups: In terms of structure, special interest groups (SIGs) were created for groups of whose constituents shared a common professional interest. The SIGs were established within the Management Engineering (ME) Committee and the newly established Information Systems Committee. Examples were the multi-hospital ME SIG (ME Committee) and the micro-computer SIG (IS Committee).   Dennis L'Heureux and Dennis Daly were appointed as co-chairs of the new IS Committee, and Ed Howell was appointed as the ME Committee chair.

Member Recognition Program: The board planned and approved a Levels of Membership Recognition Program consisting of four levels of membership, Student, Regular, Senior Member, and Fellow. The Society director was charged with reviewing applications against the criteria and point system developed and to recommend those who qualified for Fellow status. The Society board president worked with the Director to adjudicate applicant qualification issues.

Fellows: The Board appointed 31 members as honorary Fellows who would be responsible for detailing and implementing the Fellow and Senior member criteria. The honorary Fellows, who were determined in 1984 and officially recognized at the 1985 annual conference, are shown below. Julius Spivack was appointed in 1984 to serve as the first Fellows Chairperson. He led the Fellows in 1985[1].

Honorary Fellows (1985 Induction)

James M. Brislin, Jr.	Charles W. Overstreet
Peter T. Cabban	Steven L. Pettigrew
James G. Campbell	Duke K. Rohe
David Z. Cowan	Barry T. Ross
Robert M. Davis	John E. Ruekert
Don Galimore	Richard L. Rydell
Wayne M. Gray	Vinod K. Sahney, PhD
Alan J. Goldberg	William R. Schramm
John G. Hackel, PhD	Harold E. Smalley, PhD
Doreen Hagerty	Arthur R. Smith
Roger S. Hendry	Kathryn Smith
James E. Hosking	Julius Spivack
Gerald C. Macks	Mark A. Tepping
Frank J. Milewski, Jr.	William J. Watts
Howard Mintz	George W. Whetsell
Justin A. Myrick, PhD	

Richard P. Covert Scholarship: To promote and recognize healthcare systems excellence in education, the Society founded the annual Richard P. Covert Scholarship. The annual scholarship ($1,000) and an all-expense-paid trip to the annual conference were to be awarded to a selected student member at the annual conference.

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[1] Refer to Appendix V for a listing of Fellows Committee/Council Chairs

Personal Membership Committee: The AHA instituted the Personal Membership Committee (PMC) in 1984 to recognize the personal membership groups (i.e., societies of the Association and to improve collaborative efforts among them). The PMC provided the Society with a stronger voice within AHA and it served to help AHA formulate positions and policies. Robert Durej, as immediate past president (1983), served as the Society's first PMC representative in 1984. Barry Ross served as the HMSS representative to the PMC (1985-1986).

Collaborating with Healthcare Professional Organizations: In addition to strengthening relations with its affiliated chapters, HMSS initiated collaboration with other healthcare professional organizations. These groups included the American Hospital Radiology Administrators (AHRA), College of American Pathologists (CAP), Southern California Health Care Marketing Association, Health Care Internal Audit Group, and the American Society for Quality Control (ASQC).

Education: The Society took a new direction in education in 1984 by adapting the Sony International Management Game to healthcare, and conducted the program for approximately 100 administrators and financial managers from healthcare organizations throughout the country. This program signified the Society's commitment to growing as the healthcare field changes under prospective pricing and as membership expands to administrative and financial areas.

Chapters: Although HMSS members had been meeting all over New England since the 1970s, it was not until 1984 that the New England chapter was formally chartered and recognized as an affiliated chapter of HMSS. The Chapter's first president, Dennis L'Heureux, presided over its inaugural meeting in Kennebunkport, Maine.

1985 – Endowment Fund Established for Scholarship

Board of Directors: The 1985 board, officially installed at the 24th Annual Conference in San Antonio, consisted of Peter J. Ryerson, president; and directors from the eight Society regions: Robert A. Harris, Region 1; and vice president; Frank J. Milewski, Region 2; Roger S. Hendry, Region 3 (elected to fill the position of Diane Harrison, who resigned); Pamela A. Wilcox, Region 4; Phillip W. Herren, Region 5; Jon A. Wennermark, Region 6; Robert D. Gunn, Region 7 and president-elect; and Richard Correll, Region 8.

Education: The Society was again involved in new ventures in 1985. In the area of education, the Society, along with Community Systems Foundation Australia, the Hospital Research and Educational Trust, and the W. K. Kellogg Foundation, organized and conducted a three-day invitational conference entitled "Knowing, Learning, and Sharing Management Tools in Health Care." Sixty-five persons from five continents and 14 countries heard and discussed 16 papers presented by attendees. There was general consensus that there was a great need for increased international knowledge sharing as the problems of healthcare were similar worldwide.

Publications: In the area of publications, the Society completed the second edition of *Hospital Departmental Profiles* and a new book, *Working with Consultants,* which replaced the 1977 HMSS publication, *The Selection and Employment of Health Care Consultants*.

Communications: In the area of communication, the board contracted for an electronic mailbox network among the board as a trial for this form of communication.

American College of Healthcare Executives (ACHE): In 1985, the Society was invited to participate in the American College of Healthcare Executives' examination confederation. Barry Ross was appointed as the HMSS representative to the confederation. The objective of the confederation, which included a number of healthcare professional associations, was to provide input and test a restructured ACHE advancement examination. The new examination was to have a profession-specific component (that was developed by each represented association for its discipline) and a generic component. HMSS provided the input for hospital management systems to ensure that the revised examination would reflect HMSS' member backgrounds; this was accomplished through the efforts of Gerald Macks, Justin Myrick, Charles Overstreet, and Richard Rydell.

Scholarships: The board elected to give two Richard P. Covert scholarships, and to start the process, to endow the scholarship by establishing an endowment fund. The board also authorized publishing an annual report to summarize the highlights of 1985 activities through a formal document. The report was sent to members in March 1986.

1986 – HMSS Became HIMSS - Healthcare Information and Management Systems Society

The 1986 conference and meeting were held in Lake Buena Vista, Fla.

Board of Directors: The 1986 board of directors consisted of Robert D. Gunn, president; and the regionally nominated directors James Turnbull, Region 1; Frank J. Milewski, Region 2; Gerald C. Macks, Region 3; Pamela A. Wilcox, Region 4; and vice president; Rodney L. Wiggins, Region 5; Jon A. Wennermark, Region 6; Robert J. Zamen, Region 7; and Richard Correll, Region 8 and president-elect.

New Name: HMSS moves to encompass information systems and telecommunications professionals, changing its name to the Healthcare Information and Management Systems Society (HIMSS).

Information Systems Professionals as Members: The Long Range Planning Committee, under the direction of Richard A. Correll, president-elect, developed plans for 1987 and beyond. It became apparent that there was no professional Society within healthcare for information systems professionals, and that the growth of the position of *chief information officer* would create a need for a Society that could embrace all of the professionals who should report to such a position.

As the Society had been presenting educational tracks and programs directed at information systems professionals for about five years, it seemed logical that the HMSS could fill that role. After a number of meetings of task forces and advisory committees, Mr. Correll recommended to the board that the name of the Society be changed to the Healthcare Information and Management Systems Society (HIMSS) and that the Society move to encompass information systems professionals.

In a subsequent vote of the membership on the name change, more than 80 percent of the 1,000 members who voted were in favor of the change.

Center for Healthcare Information Management: With the change in name, a second organization was established within the AHA to assist in the expansion of the Society. This organization, the Center for Healthcare Information Management (CHIM), was established to utilize funds donated by vendors and consultants who supported the expansion of the Society. Richard A. Correll resigned as president-elect to become director of CHIM at the end of 1986.

Telecommunications Professionals: As the efforts of the Society were approved by the AHA, it became apparent that the telecommunications professionals also belonged within this organization. At the end of the year, discussions about a merger were undertaken with the telecommunications group of the American Society for Hospital Engineers (ASAE), of which it was a part. This was precipitated by the fact that prior to the advance of IT, hospital telecommunications typically were focused on switchboard operations, which generally reported to the engineering department. Directors of plant engineering were represented by the ASHE, another AHA personal membership group.

Fellows as Facilitators: The Fellows recommended and were asked to facilitate appointing Fellows as moderators for the annual conferences. Fellows chairman, Barry Ross, developed guidelines for Fellows to serve as moderators and coordinated assignments of moderators for each conference educational session.

1987 – Nominations Committee Revised
  The 1987 conference was held at the Riviera Hotel in Las Vegas.

Board of Directors: The 1987 board of directors included Pamela A. Wilcox, president and regionally nominated directors Jim Turnbull, president-elect and Region 1; Ned J. Simpson, Region 2; Gerald C. Macks, Region 3; Cheryl Wyatt, Region 4; Rodney L. Wiggins, vice president and Region 5; Doreen C. Hagerty, Region 6; Robert J. Zamen, Region 7; and Frank Overfelt, Region 8.

Member Services: It was a year of change and growth. HIMSS reached out to new constituencies in addition to its traditional core group of management engineers. With the creation of CHIM, HIMSS reached out to information systems professionals, and through its agreement with the ASHE, HIMSS also reached out to telecommunications professionals. Concurrently, the HIMSS Nominations Committee composition was revised to emphasize functional divisions. As a result of these and other efforts, the Society grew by 50%.

1988 – Annual Conference Grew by 50%
  The 1988 conference, held at the Fountainbleu Hotel in Miami Beach, also had a 50% growth rate, as well as doubling the number of vendor exhibitors for the third consecutive year.

  Board of Directors: The 1988 board of directors included Jim Turnbull, president Richard Rydell, Regions 1 and 3; Ned Simpson, president-elect and Region 2; Cheryl Wyatt, Region 4; William Schramm, Jr., Regions 5 and 7; and Frank Overfelt, Vice President, representing Region 8. The functional nominated directors were G. Malcolm Murray, information systems, and Debbie Green, telecommunications. The ex-officio members were Hubert Austin, PhD, (information systems) and Toni Baych (telecommunications).

1989 – CHIM Became Independent Organization

The 1989 Annual Systems Conference and Meeting was held at the Anaheim Hilton and Towers, Anaheim, Calif. Registration totaled 1,225 people, another 50% jump in attendance. The information management exhibition had 128 vendors, filling the space available at the facility.

CHIM: This was also the last year of the original CHIM agreement, which thereafter became an independent organization with offices in Ann Arbor, Mich.

Board of Directors: The 1989 board of directors were Ned J. Simpson, president and regionally nominated directors Richard L. Rydell, president-elect and Regions 1 and 3; Everett Hines, Region 2; Laurel Renegar, Region 4; William Schramm, Jr., Regions 5 and 7; Michael Collins, Region 6; Sharon Garrett, Region 8; G. Malcolm Murray, vice president and information systems; and Debbie Green, telecommunications.

Publications: Discussions regarding how the Society's journal should be published continued with AHA, with the Society wishing to cover some or all of the costs of the publication through advertising. The publishing subsidiary of AHA, American Hospital Publishing, Inc., concluded, after a lengthy study, that there was not enough advertising support for it to publish the journal with advertising.

However, the Society continued its working relationship with American Hospital Publishing and the book, *Productivity and Performance Management in Health Care Institutions* was published. The book was sponsored by HIMSS, the American Society for Healthcare Human Resources Administration, and the Personal Membership Committee of AHA. Mark McDougall, Richard Covert, and V. Brandon Melton were editors and contributors included Alan Goldberg, John Werner, Vin Sahney, and others.

New HIMSS Director: Richard P. Covert, PhD, director of the Society since 1978, asked that he be relieved of his duties as director and continue as associate director with responsibility for educational programs. This transaction was completed when James W. Civik started as director in November 1989.

1990 – Monthly HIMSS Newsletter Introduced and the Rebirth of a Chapter

The 1990 Annual HIMSS Conference, again cosponsored by the Society for Health Systems of the Institute for Industrial Engineers, was held February 19-22, in New Orleans. The conference continued to grow, with 128 exhibitors using 215 booth spaces, 1,605 registered attendees, and over 200 persons registered as guests for social functions.

Board of Directors: At the annual meeting, it was announced that the president for 1990 was Richard L. Rydell; with John P. Glaser, PhD, president-elect; Laurel P. Renegar, vice president; and Everett Hines and Michael Collins returning board members. New board members were Dennis P. L'Heureux, Region 1; Marion J. Ball, EdD, Region 3; John A. Page, Region 5; and Richard Peterson, Region 7.

Publications: In June 1990, a monthly newsletter, *HIMSS News*, was introduced to supplement the quarterly journal, and plans were made to introduce additional member services as the details were completed. Also, the third and final edition of the book *Hospital Departmental Profiles,* edited by Alan J. Goldberg, was published with a press run of 5,000 copies and a second printing of 2,500 copies in 1992. This book was double the original in size with 37 chapters.

Member Services: The Society had also grown, with approximately 3,700 members at year's end.

Chapters: Upon his return to New York City, Barry Ross discovered that the relationships and communications among healthcare management systems professionals no longer existed as they had in the late 1960s and 1970s. He and Ed Snyder (both at New York City major teaching medical centers) identified the benefits to and interests of others to form a professional association. As a result, a new chapter, the Greater New York Chapter (now the New York State Chapter) was formed and became an affiliated chapter in 1991. It quickly grew as health information technology began to blossom. Ross served as its first president and Snyder was the first vice president.

In 1990, the Colorado Chapter was organized through the efforts of Richard Friedland. It took three years until the chapter affiliated with HIMSS.

1991 – HIMSS Operates at a Financial Deficit

The 1991 Annual Conference, the Society's 30th, was held in the Moscone Convention Center in San Francisco, with a registered attendance of more than 1,800 persons. In addition, there were more than 100 persons registered for the exhibits only, and at least 100 additional guests. The exhibition grew again, with 260 booths and 164 exhibiting companies.

The conference that year was cosponsored by both the Society for Health Systems of the Institute for Industrial Engineers and CHIM. In addition, the Society and the Society for Health Systems cosponsored for the second time a fall conference titled "Quest for Quality" with 500 registrants.

Board of Directors: The 1991 board of directors consisted of John P. Glaser, PhD, president; Richard L. Rydell, past president; John A. Page, president-elect and Region 5; Laurel P. Renegar, vice president and Region 4; Marion J. Ball, EdD, vice president-elect and Region 3; Dennis P. L'Heureux, Region 1; William C. Reed, Region 2; Chloe Miller-Haynes, Region 6; Richard C. Peterson, Region 7; Robert L. Hanson, Region 8; Dean R. Campbell, appointed to represent information systems; Richard A. Correll, appointed to represent CHIM; and Louis E. Freund, PhD, appointed to represent the Society for Health Systems, Institute of Industrial Engineers.

New Director: For the first time in its recent history, the Society was operating at a financial deficit. In April, James Civik resigned as director, and Richard P. Covert, PhD, was appointed acting director until a new director could be found.

In June, 1991, president-elect John A. Page accepted appointment to the position of executive director of the Society. It marked the first time that an elected officer of the Society received such an appointment. As a result of the vacancy created, President John Glaser, PhD, appointed second-year board member Dennis L'Heureux, to fill the president-elect's role.

Board Strategic Planning: A board strategic planning retreat was held to develop a formal planning document and direction for the Society. The results of a comprehensive membership survey were the basis for many decisions and plans made.

A special roast was held in Dr. Covert's honor at the 1991 Annual Conference to commemorate his years of service to HMSS/HIMSS; it was emceed by Bob Durej. In September 1991, Dr. Covert retired from the Society after a long and distinguished period of service to the HIMSS membership.

1992 – HIMSS Bylaws Revised to Reflect Growth

The 1992 Annual HIMSS Conference & Exhibition was held in Tampa, Fla. Total attendance approached 2,400, with 169 exhibiting companies. As during the previous year, the conference was co-sponsored by the Society for Health Systems of the Institute of Industrial Engineers and CHIM.

Logo Introduced: The Society's new identifier—three circles enclosed in a fourth circle representing HIMSS' core disciplines within the healthcare delivery team—was unveiled at the conference. That year also marked the 25th anniversary of HIMSS' affiliation with the AHA. In addition, the Society and the Society for Health Systems again co-sponsored a fall conference entitled "Quest for Quality," drawing 400 registrants.

Board of Directors: The 1992 board of directors consisted of Dennis P. L'Heureux, president; John P. Glaser, PhD, past president; Marion J. Ball, EdD, vice president; William C. Reed, president-elect; Kathryn F. Smith, vice president-elect; and board members Randal E. Carson, Pamela A. M. Cocavessis, Robert L. Hanson, Geoffrey J. Suszkowski, Ph.D., Chloe Miller- Haynes, George Levesque, and Richard A. Correll, representing CHIM.

Bylaws Revised: During the first meeting of the 1992 board of directors, the bylaws were revised to reflect HIMSS' growth, the diversification of its members' interests, and the intent to foster an organization that supports meeting the needs of its members through the integration of *common* interests while still recognizing *individual* interests. Members cast a landslide majority vote in favor of these changes in spring, 1992. Approved changes included reorganization of the board and changes to the nominations and elections process.

Staff Added: To support the Society's new directions and enhancements to membership services, the following vacancies were filled: Lyn Hopmayer, assistant director for programs and meetings; Andrew Pasternack, assistant director for publications; and Pamela Barrett, associate director. These well-qualified staff members provided the resources needed to dramatically enhance HIMSS' publications, educational programming, and membership services.

AHA Restructuring: National interest in healthcare reform also reached a peak that year. President L'Heureux's fall journal message in support of AHA's reform vision brought a warm letter of appreciation from AHA President Richard Davidson. The year ended with a change in AHA's structure that made HIMSS a part of the Division of Information Resources, reporting to the Division of Policy. A relationship between HIMSS and Healthcare Information Business Communication Council (HIBCC) was established when Dennis L'Heureux was appointed to fill an AHA seat on the Council. This appointment evolved into a revolving HIMSS at-large seat on HIBCC.

1993 - HIMSS Became a Separate, Independent Organization

Conference: The 1993 Annual HIMSS Conference & Exhibition was held March 1-4, 1993, in San Diego. The conference drew 4,400 attendees and 195 exhibitors, breaking records for attendance and exhibition size. In another first, the conference proceedings were prepared in a multi-volume boxed set. Also, copies of the newly redesigned HIMSS journal, *Healthcare Information Management* were distributed to attendees as well as to all members.

Among the most newsworthy events of the conference were a keynote session by Steven Jobs, founder of Next Computer and cofounder of Apple Computer and a general session by James Carville, chief strategist for Bill Clinton during his successful 1992 campaign for president.

Board of Directors: The 1993 board of directors were William C. Reed; Kathryn F. Smith, vice president; George E. Levesque, president-elect; and Geoffrey J. Suszkowski, PhD, vice president-elect; and board members Nancy E. Aldrich; Randal E. Carson; Robert L. Hanson, RN; Teresa J. Jacobsen, RN, MS; Chloe A. Miller-Haynes; Walter C. Perrin, representing CHIM; A. Charles Platt; John Schreier; and Pamela A. Wolff.

Independent HIMSS: HIMSS and AHA began to examine the possibility of an independent HIMSS. During 1992 and into 1993, AHA began a process of restructuring triggered by AHA President Richard Davidson. That restructuring would eventually see a reduction in the 1,000-person AHA workforce of about 30 percent and planning for relocation from its historic Chicago Streeterville district headquarters to another, smaller office space.

As part of that restructuring, AHA began probing options for its personal membership groups, of which HIMSS was among the most likely to be able to survive as an independent entity.

On Its Own: Seizing the moment, HIMSS and AHA agreed in the spring 1993 to examine the possibility of HIMSS becoming independent. In the aftermath of the conference's success, as well as the Society's continuing membership growth, AHA and HIMSS agreed to dissolve the
27-year affiliation between the two organizations. The separation occurred on September 10, 1993, when HIMSS became an independent, not-for-profit 501(c) (6) corporation.

New Headquarters: HIMSS moved into new headquarters one month later at 230 E. Ohio St. in Chicago's Streeterville neighborhood, a location within walking distance of both the Blue Cross/Blue Shield Association and the American Medical Association.

Education: Within days of the move, the 1993 Annual HIMSS Fall Communications Conference & Exhibition was held October 13-15, 1993 in Pittsburgh. The conference, attracting several hundred attendees, featured a keynote address by Henry "Harry" Hirsch,president and chief operating officer of communications giant WilTel Communications, Houston.

Chapters: In another sign of growth, by year end, there were nearly 40 HIMSS-affiliated chapters. Also during 1993, HIMSS members in voice/data/image communications voted to officially designate this area as "telecommunications."

Fellows: The Fellows Organization, which had fallen into neglect the previous two years, was resurrected and Frank Overfelt installed as chair.[1]

Healthcare Reform Related to HIS: Parallel to HIMSS' steady growth and evolution were several developments that placed information and management systems at the forefront of the healthcare reform dialogue. Among them were the following:

- President Clinton's Health Security Act, unveiled in September, 1993, featured a section on the role of information systems.
- Legislation was introduced that same month by Senator Christopher (Kit) Bond (R-MO) that proposed the development of wide-area healthcare information networks with which to streamline administration of healthcare financial and clinical operations.
- During 1993-94, other legislation was introduced calling for funding of test bed healthcare information networks and telemedicine pilot projects by Senator Tom Harkin (D-IA), Representative Rick Boucher (D-9th VA), Representative Larry La Rocco (D-1st ID) and others.
- The Joint Commission on Accreditation of Healthcare Organizations added standards regarding hospitals' information management functions to its 1994 accreditation manual. (A number of HIMSS members were reviewers of early drafts of the standard.)
- The Workgroup on Electronic Data Interchange published a revised (upwardly) estimated savings from healthcare EDI in its October 1993, report (a follow-up to its July 1992 report) on the use of information technology in healthcare.

In this setting, HIMSS once again seemed to be heading for a major success with its annual conference—a critical milestone for the now-independent Society. By mid-December 1993, exhibition space for the conference in Phoenix was nearly sold out.

1994 – "Clinical Systems" Voted a Membership Constituency

The annual conference was held February 13-16 in Phoenix. By conference time, the exhibition floor had sold out, with 248 exhibitors and a waiting list of 40 vendors. Total attendance hit 6,300, another record.

Publications: At the conference, HIMSS distributed copies of *Guide to Effective Health Care Information and Management Systems and the Role of the Chief Information Officer*, a

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Refer to Appendix V

completely revised and expanded version of an earlier book first published in 1987. The publication was the first of a planned series of new HIMSS "Guide to" books.

Board of Directors: The 1994 board of directors were George Levesque, president; Geoffrey J. Suszkowski, PhD, vice president; Nancy Aldrich, president-elect; A. Charles Platt, vice president-elect; and board members Richard C. Howe; Richard Reynolds; Toni Baych; Robbie G. Trussell, RPh; Randy Carson; Teresa J. Jacobsen, RN, MS; John Schreier, and Pamela A. Wolff.

Member Services: In May, 1994, HIMSS members overwhelmingly voted to make "clinical systems" a formal membership constituency (along with information systems, management engineering, and telecommunications).

Bylaws Change: HIMSS members also voted to adopt a change in how the HIMSS Board of Directors selected its leadership. These bylaws changes were put into operation on July 1, 1994, consistent with the beginning of the corporate fiscal year.

On October 29, 1994, Harold E. Smalley, PhD, passed away. He will always be remembered for his foresight to lay the groundwork for the development of healthcare management systems professionals and for founding the Society representing them. Smalley served the Society well as founder, Charter Member, and first Executive Director.

1995 – Transition to New Committee Structure Completed

More than 10,000 attendees and 372 exhibitors were on hand for the 1995 Annual HIMSS Conference, February 12-16, in San Antonio.

Deemed the "hottest annual meeting in healthcare" by *Modern Healthcare,* the conference's growth paralleled a key finding of the 1995 HIMSS/HP Leadership Survey, Trends in Health Care Computing: projected major increases in information spending during the next two years.

Anticipation of increased spending for healthcare automation drew top executives from three of the country's largest technology developers, all anxious to grab the attention of HIMSS '95 attendees:

- Bill Gates, founder and CEO of Microsoft;
- James Buckley, president and general manager of Apple USA; and
- Charles Wang, president and CEO of Computer Associates.

New Fiscal Year Set-Up: The final transition of officers from the calendar to fiscal year occurred in 1995. Nancy Aldrich and Charles Platt became president and vice-president, respectively, on January 1, 1995. They would be the first officers of the Society to serve for more than 12 months since HIMSS' earliest days. George Levesque and Geoff Suszkowski, PhD, along with Randy Carson and Pamela Wolff, continued to serve as members of the board through June 30, 1995. With the institution of a new, six-month orientation period, four new directors-elect also worked with the board during this period.

Board of Directors: On July 1, 1995, the 1995/96 board of directors officially took office. Included were: Nancy Aldrich, president; Charles Platt, vice president; Richard C. Howe, PhD,

president-elect; Richard Reynolds, vice president-elect; and directors Toni Baych; Ron Contrado; Deborah Krau; Teresa Jacobsen, RN; John Schreier; Cindy Spurr, MBA, RN; Cheryl Turner; and Robbie G. Trussell, RPh.

New Committee Structure: The transition to a new committee structure, one in which volunteers serve for a two-year term, had been accomplished. The new structure provided for adequate continuity and improved leadership on the committee by ensuring that not more than half the committee members retire each year.

In addition, committee chairs were now selected from among those that would be second-year committee members. A committee "leadership triad," consisting of the volunteer chair, a liaison from the board and a staff representative was developed for each committee. The purpose of the new structure was to ensure that progress toward the goals established by the board was maintained.

Committee chairs for 1995-96 included John Templin– Education; Gary Kurtz – Publications; Mary Alice Annecherico, RN - Professional Development; and Julie Glen, RN - Membership Services and Marketing.

New Strategic Committees: In order to better enable the board to achieve its strategic mission for the Society, several new strategic committees of the board were developed. Among these were Collaborative Relations, Community, Image, Leadership, and Technology. As part of the newly created volunteer/leadership orientation program, charters were developed for all HIMSS committees and constituency advisory boards.

Education: Besides the annual conference, HIMSS sponsored other educational events throughout the year including Access Telemedicine and the CEO Symposium. NetCon '95, the 1995 Annual HIMSS Networks Conference, was held in Keystone, Colo.

Following the board's newly approved direction of encouraging co-sponsorship of HIMSS programs with regional affiliated chapters, the Colorado HIMSS chapter was named an official cosponsor of NetCon '95. The expansion of HIMSS educational efforts also began to bear fruit during 1995-96 with the introduction of the Long Term Care Information Systems Conference in Philadelphia, in the spring of 1996. The conference was cosponsored with the Delaware Valley HIMSS Chapter.

Planning for HIMSS '96: The planning process began immediately after the HIMSS '95 in San Antonio for the 1996 annual conference. As with all HIMSS operating/mission committees, a volunteer chair was appointed by President Aldrich. LaVone Neal served as Chair of the 1996 Annual Conference Planning Committee. The committee maintained its multi-constituency makeup while, for the first time, assembling educational sessions within broader-themed tracks intended to serve the multidisciplinary management needs of HIMSS' continually diversifying membership. The Georgia HIMSS chapter was named the official host chapter of HIMSS '96 in Atlanta.

Publications: HIMSS published *Guide to Effective Health Care Management Engineering* to promote the value of the profession. Eight long-time members contributed to this booklet.

1996 - Membership Reached 7,500

A new attendance record was set with more than 12,800 persons attending the 1996 HIMSS Annual Conference & Exhibition, March 3-7, 1996. The publication, *Tradeshow Week 200*, ranked the 1996 Annual HIMSS Conference and Exhibition, Atlanta, Ga., as one of the top 200 tradeshows in the United States.

Those in attendance were treated to an all-star lineup of speakers:
- Gen. Colin Powell;
- Senator George Mitchell; and
- Gordon Moore, Intel Corp. founder and Chairman of the Board.

The exhibition hall continued its recent growth to more than 425 exhibiting companies. More than 1,200 professionals participated in the seventh annual HIMSS/HP Leadership Survey, Trends in Health Care Computing. A new, automated registration system, with self registering terminals on-site and pre-registration through the Internet, was used for the first time in Atlanta. The development of a true, ongoing HIMSS presence on the World Wide Web was accomplished in the fall 1995.

Collaborative Efforts: Expansion and formalization of collaborative relations began to take shape with the signing of multi-year cooperative agreements with the College of Healthcare Information Management Executives (CHIME) and CHIM. HIMSS also cosponsored activities with the American Medical Informatics Association (AMIA) and American Health Information Management Association (AHIMA). In addition, first steps began toward the development of a joint industry alliance of not-for-profit organizations within our field.

Publications: HIMSS' publications efforts were also active in 1995-96 with the release of the third and fourth in the HIMSS handbook series: *Guide to Effective Health Care Clinical Systems* and *Guide to Effective Health Care Telecommunications. Healthcare Information Management* as well with a broader distribution channel through an agreement with Jossey-Bass Publishers. The Annual Conference Proceedings also received a redesigned, more compact 7 x 10-inch format as well as a full text-searchable version on CD-ROM.

Member Services: Professional development efforts saw an increase in the number of advanced members as well as the development of two new categories of membership:
- *Retired member* (for those retired from the field with 10 or more years of continuous membership); and
- *Life member* (for those with 30+ years of continuous membership).

HIMSS Student Chapters: With HIMSS' encouragement, Barry T. Ross helped create the first student chapter as a model. This chapter was formed at Duquesne University in Pittsburgh. The first president was Don Kuhn and the faculty advisor was HIMSS member, Kathleen Begler. Another HIMSS member, Joan Kiel, PhD, served as Chair of the Health Management Systems program.

Richard P. Covert, PhD, long time director of the Society for whom the Covert Scholarship is named, was honored by being named an honorary Fellow of HIMSS in addition to his status as a member emeritus.

Membership Numbers and Satisfaction: The year closed with membership satisfaction continuing to increase and total membership closing the year at an all time high of more than 7,500.

HIMSS Foundation: The development of the HIMSS Foundation, a separate, non-profit 501(c)(3) educational foundation, completed the final outstanding transition of the Society from the AHA. A silent auction held at HIMSS '96 in Atlanta to benefit the HIMSS Foundation successfully raised more than $10,000 to be used to fund other student scholarships. Creation of the Foundation was prompted by the AHA practice that, if the Society had a surplus at the end of the fiscal year (which was the case), whatever funds were not used would be transferred from the Society into the general fund of AHA.

Web Services: HIMSSLIST was introduced to allow HIMSS members and staff to communicate with each other. HIMSSLIST was an Internet e-mail list members could use to exchange ideas and experiences that related to their day-to-day work. HIMSS staff could use the list to announce events and to monitor the content to better understand members' needs.

With the Society financial position improving for the fifth straight year and membership increasing, the HIMSS Board of Directors, volunteers and staff wasted no time in ensuring that HIMSS continued to provide leadership for the management of system, information and change well into the next millennium by focusing on goals related to the strategic plan developed by the board.

1997 – Joint Healthcare Information Technology Alliance (JHITA) Established

The 1997 Annual HIMSS Conference & Exhibition, February 16-20, San Diego, attracted a record 15,800 attendees, 408 exhibitors, and presented 13 educational tracks.

Keynote speakers:
- James Carville and Mary Matalin opened the conference by sharing their views on the federal government and healthcare;
- Reginald Ballantyne, III, President, American Hospital Association, presented his views on the future of healthcare delivery;
- Scott Adams, creator and writer of the Dilbert comic strip, related his lifelong dream of becoming a cartoonist;
- Maya Angelou, 1992 Poet Laureate, recited inspirational poems, stories, and songs; and
- Tony Alessandra, PhD, presented the platinum rule and techniques for interacting with others more successfully.

Other highlights of the conference included the following:

- New to HIMSS '97 were Conference Orientation Sessions. Three sessions were held to allow attendees to gain insight on the conference from several members including Fellows, Senior members, various committee members, and exhibitor representatives.
- The Department of Defense (DoD), Health Affairs became an official cosponsor for HIMSS '97, holding 15 educational sessions. The DoD hosted a demonstration area, where more than 25 projects and systems were online.
- Attendees were able to view the HUMVEE M3V (Mobile Medic Motoring Vehicle) and the DART (Deployable Aeromedical Readiness Team) vehicles to better understand how the military applies technology to medical care in action.
- For the first time ever, members and conference attendees received pre-conference information through the HIMSS web site via the Virtual Tradeshow and Virtual Education Catalog. The Virtual Tradeshow provided members with access to companies exhibiting at HIMSS '97 based on product and service categories. A completed search supplied booth number, contact name, address, and phone, a list of products or services and, if available, a hot link to the company's website for additional information.
- The Virtual Education Catalog allowed members to find sessions matching a specified topic or key word. A completed search gave the session title, abstract, date, time, and room number. Members could also search for sessions by speakers.

Joint Healthcare Information Technology Alliance Formed: The leadership of HIMSS, CHIME, and CHIM joined together to form JHITA, an organization to address concerns, such as pending federal legislation and regulation, and the lack of understanding about IT's capabilities and limitations among top health care executives.

JHITA's goal was to advance healthcare delivery through smart use of information technologies. JHITA published and distributed information papers so that members of HIMSS, CHIME, and CHIM could keep abreast of legislation that would affect the future of the profession.

Member Services: The HIMSS Board reviewed 98 applications for advancement to Senior Member and Fellow, a 24 percent increase over the previous year. In July, formally recognizing the contribution the Fellows made to the Society, a motion to establish the Fellows Advisory Council was adopted, and the Council was formed. Comprised of all HIMSS Fellows, the Council served in an advisory capacity to the Professional Development Committee. Richard Friedland, FHIMSS; was chair, and Robert Gunn, FHIMSS; was chair-elect.

HIMSS members identified five topic-oriented groups for participation in the Networking Group pilot program: academicians, managed care, computer-based patient record, outcomes, and reengineering and performance improvement. Providing members with the opportunity for a regular exchange of ideas and current information and a vehicle for informal discussion were some of the groups' objectives.

HIMSS Foundation: The HIMSS Foundation Board elected to increase the cash award of the Richard P. Covert Scholarship to $2,500 per award per year. In addition, the HIMSS Board agreed to underwrite the awards and expenses associated with the scholarships for three years (through the 2000 awards) to allow the scholarship funds to remain untouched during the "200K by 2K" fundraising program.

The HIMSS Foundation Board also unanimously approved the establishment of a goal to increase the Foundation's scholarship endowment funds to $200,000 by HIMSS00. This goal of "200K by 2K" would provide sufficient funds for the HIMSS Foundation to permanently award at least $10,000 in scholarships annually.

The 1997 recipients were Michele Puetz, BSIE, Iowa State University; and Mike Furukawa, MSHS, PhD.

Publications: Adding to member benefits, HIMSS introduced a *Hands on Guide to HIMSS* as part of a campaign to communicate benefits of membership more effectively to members, and published *Guide to Nursing Informatics,* the newest addition to the HIMSS guide series. HIMSS also entered into an agreement with *Advance for Health Information Management Executives* magazine to bring industry news to members.

Education: The regional education project team presented a series of educational offerings, including a new program, Introduction to Healthcare Information and Management Systems Workshop. The workshop provided an overview of each of four system divisions: clinical systems, information systems, management engineering, and telecommunications. Ongoing regional programs included Long Term Care Information Systems Conference and Telehealth: Steps to Successful Implementation.

As membership totals raced toward 10,000, annual conference participation at an all-time high, and consistently high and improving member satisfaction ratings, HIMSS was set to undertake a period of expansion unlike any in its history. With the direction of the HIMSS Board and the dedication of the expanding HIMSS staff, the Society was preparing to move into the 21st century.

1998 – HIMSS '98 Attendees and Exhibitors Aided Central Florida Tornado Victims

More than 19,500 attendees and 615 exhibitors gathered to "Imagine the Future" at the 1998 Annual HIMSS Conference & Exhibition, February 22-26 in Orlando.

The theme of HIMSS '98 encouraged attendees to imagine the future, but the reality of a series of devastating tornadoes in Central Florida allowed everyone to open their hearts and provide support for the victims. HIMSS quickly established a disaster relief fund and within hours of the devastation, attendees and vendors began contributing thousands of dollars. At the end of the conference, HIMSS was proud to present a check of cash contributions and pledges of more than $20,000 to Thursday morning's general session speaker, Elizabeth Dole, president of the Red Cross.

Attendees were treated to a wide variety of keynote and general session speakers at HIMSS '98.

Keynote speakers included the following individuals.

- Bill Bradley shared stories from his many experiences as a three-term Senator, author, and successful college and NBA basketball player;

- John T. Chambers, president and chief executive officer of Cisco Systems, provided his opinions on the current and future trends of technology and healthcare;
- Lou Holtz, former head football coach of the University of Notre Dame, presented a motivational speech highlighting the importance of attitude and care in overcoming challenges;
- Elizabeth Dole shared her thoughts on the future of America; and
- Charles Lauer, publisher of *Modern Healthcare,* closed the conference with his thoughts on having a positive, hardworking mindset.

New to HIMSS '98 was Career Development Day. The sessions chosen for Career Development Day were intended to provide attendees with professional development and career management information. Sessions included introductory tutorials covering clinical systems, information systems, management engineering, and telecommunications; a professional development and career planning workshop cosponsored by HIMSS and SHS; and a workshop describing publishing opportunities.

HIMSS Leadership Survey: The Ninth Annual HIMSS Leadership Survey, Trends in Healthcare Computing, sponsored by IBM, was conducted via the Internet for the first time. This allowed all HIMSS members to complete the survey, whether or not they attended HIMSS98. In addition, the searchable results were made available on the HIMSS website. The survey was also enhanced by a blue ribbon panel of 15 prominent members of the healthcare information and management systems community who better focused the survey on areas of industry concern to further define the framework of the healthcare computing and technologies industries.

Nursing Informatics: A new education program, *Nursing Informatics- Components for Success,* debuted in 1998. Topics covered in this workshop were developed by nursing practitioners, and included a nursing informatics practice overview, system analysis and design, system selection and vendor negotiations, data and outcomes management, and nursing informatics networking resources.

Member Services: Honoring its founder, Harold E. Smalley, PhD, and a former Regents Professor Emeritus of Georgia Institute of Technology, HIMSS presented a gift of $25,000 to the Georgia Institute of Technology Foundation. The endowment was to help fund the Harold E. Smalley Health Systems Endowed Chair in the School of Industrial and Systems Engineering.

Life Members: The Professional Development Committee recognized HIMSS' first two Life Members, William Andrew and Richard Friedland.[1] The committee advanced 56 members to Senior member status and 15 members to Fellow status.

HIMSS Headquarters: This year HIMSS purchased the building that had served as its Chicago headquarters since 1993. The purchase allowed HIMSS the space options to accommodate a larger staff and build for the future. The HIMSS staff completed its move to newly renovated offices on the 5th floor in early January.

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[1] Refer to Appendix IV for a list of Lifetime Members

Integrating the Healthcare Enterprise: HIMSS and the Radiological Society of North America (RSNA) collaborated to create an initiative called Integrating the Healthcare Enterprise (IHE), intended to stimulate the integration of disparate information systems, imaging, and other software components and resources for healthcare. HIMSS and RSNA planned to sponsor the development of a phased series of public demonstrations of increasing connectivity and systems integration. The meetings would take place over the next several years.

JHITA: The American Health Information Management Association (AHIMA) and the American Medical Informatics Association (AMIA) joined the Joint Healthcare Information Technology Alliance (JHITA), bringing the total number of associations to five. AHIMA and AMIA join the Center for Healthcare Information Management (CHIM), the College for Healthcare Information Management Executives (CHIME), and HIMSS.

HIMSS Joins ACEHSA: HIMSS became a member of the Accrediting Commission on Education for Health Services Administration (ACEHSA). ACESHA is a corporation organized exclusively for educational and scientific purposes. The accreditation program of ACEHSA is designed to foster high-quality professional education for health services administration.

Continuing Ed Credit for Nurses: HIMSS was also approved as a provider of continuing education in nursing by the Illinois Nurses Association, Continuing Education Approver Unit, which is accredited as an approver of continuing education in nursing by the American Nurses Credentialing Center's Commission on Accreditation. HIMSS was now able to give continuing education credit to those educational activities they provide or co-provide for a period of two years, ending December 2000.

1999 – Emphasizing Synergy through Partnerships

HIMSS99, with the theme of "Discover the Synergy," featured more than 150 panel, poster, and technical sessions; a job fair; keynote speakers; entertainment; networking opportunities; and nearly 500 vendors showcasing a wide variety of healthcare information-related products and services.

Keynote speakers included
- Former President George Bush, discussing success and the meaning of leadership;
- Captain James Lovell, spacecraft commander of Apollo 13 and president of Lovell Communications, talking also about leadership, teamwork, and overcoming challenges; and
- Howard Rubin, PhD, an expert in the field of Y2K solutions, to speak at a Y2K General Session.

Other topics of interest for the approximately 17,000 attendees included:
- Emerging technologies;
- New uses for the Internet; and
- Department of Defense (DoD)/Health Affairs on healthcare information systems and telemedicine in the military, including sessions on Internet/Intranet, computer-based patient records, emerging tools and concepts, and career development.

Job Fair and HIMSS/CHIME Career Match service provided attendees with numerous professional development opportunities. A total of 170 employers participated, posting more than 440 job openings. Applicants responded to these opportunities with more than 4,000 résumé submissions. A HIMSS Member Networking Lounge provided networking opportunities for member-attendees, as did group networking meetings scheduled throughout the conference.

Awards: Another feature at HIMSS99 was the presentation of awards:

- Wei-Tih Cheng, PhD, FCHIME, vice president, Information Systems, Memorial Sloan-Kettering Cancer Center, New York, N.Y., received the 1999 HIMSS/CHIME John E. Gall, Jr. CIO of the Year award
- Richard P. Covert Scholarships, awarded to one undergraduate and one graduate student for efforts in the field of healthcare information and management systems, were presented to Melanie J. Anderson, Iowa State University; and Tamara Pomerantz, graduate student at the Medical University of South Carolina, Charleston.
- The award for outstanding service was presented to Cherryl A. Turner, project manager at HBO & Company, Atlanta.
- The 1998 Book of the Year Award was presented to Steven Goldman and Carol B. Graham for their book *Agility in Healthcare: Strategies for Mastering Turbulent Markets.* Lee Olson, Steven G. Peters, MD, and Jane Stewart received the award for article of the year for their work "Security and Confidentiality in an Electronic Medical Record."
- The technical paper of the year was "The Opportunity of Chaos: The Future State of the CIO," by Betsy Hersher.

Awards were also presented in each of the four HIMSS constituencies.

- Marian Celli, MS, RN, NC, received the award for clinical systems.
- John E. Haffy received the award for information systems.
- Rudolph A. Guerrero received the award for management engineering.
- Toni Baych received the award for telecommunications.
- Cherryl A. Turner was presented the award for outstanding service.

Leadership Survey: The 10th Annual Leadership Survey Sponsored by IBM Global Healthcare found that the most important IT priority for healthcare organizations over the next year, not surprisingly, was implementing a year 2000 conversion (44%). Integrating systems in a multi-vendor environment was the second most frequently cited IT priority, with 16% of responses. The survey, conducted February 21–24, 1999, polled on-site attendees and website respondents on IT issues, and featured the opinions of nearly 1,000 chief information officers and senior managers.

IHE Results at RSNA's 85th Scientific Assembly and Annual Meeting: The results of the first year of the five-year program were initially presented at the 1999 IHE Symposium, part of RSNA's 85th Scientific Assembly and Annual Meeting at Chicago's McCormick Place November 28–December 3, and demonstrated the evolving state of the art in healthcare information systems integration. The focus of this initial vendor demonstration was on maintaining the continuity and integrity of data exchanged among information and imaging systems in radiology units.

Education: In September and October, two consecutive programs highlighted Information Technology Strategic Planning (September 29, 1999) and Implementing Security and Confidentiality Policies (September 30–October 1, 1999) at the Mandalay Bay Resort in Las Vegas.

- At the first workshop, James Martin, PhD, and Patrick Hagan, executive vice president and CEO, Children's Hospital Regional Medical Center in Seattle, provided intensive analysis and discussion of the essential components of strategic planning, emerging information technologies, and the IT plan of a contemporary healthcare organization.
- At the second program, Dale Miller, director of consulting services at Irongate, Inc., San Rafael, Calif., discussed the security requirements that HIPAA will pose, as well as security issues raised by the Internet and electronic health record systems.

A two-and-one-half day workshop for management engineers entitled "Maximizing Your Professional Value" was offered November 4–6, 1999 in Dallas. Duke Rohe, FHIMSS, systems improvement specialist at MD Anderson Cancer Center in Houston, was among the presenters offering sessions on topics such as:

- Process improvement tools;
- Industrial benchmarks and large-scale change;
- ISO 9000 versus Joint Commission standards;
- Project and change management;
- Financial analysis and strategic planning; and
- How to market yourself and your department.

Member Services: Two new member-benefit magazines were added in 1999 to the growing list of publications that are part of HIMSS' benefits of membership. Members could choose to receive *Health Data Management* and *Healthcare Informatics* magazine, in addition to *Advance Magazine for Healthcare Executives* and *Modern Healthcare*.

New Chapter in Canada: HIMSS welcomed a new international chapter in 1999, the Ontario Healthcare Management Information Systems Association, a 70-member chapter serving hospitals within the province.

Healthcare Information Management Systems Week: HIMSS sponsored Healthcare Information Management Systems (IMS) Week, November 2–6, to focus on changes in healthcare for the year 2000. The purpose of IMS Week was to recognize colleagues in the information and management systems field and educate coworkers outside of those areas about how information and management systems professionals contribute to their respective organizations and the healthcare industry.

The week's activities included encouraging HIMSS members to write articles in their organization newsletters explaining IMS week, host departmental open houses, show department unity by wearing IMS T-shirts, and give demonstrations highlighting how technology enhances the healthcare delivery system. CHIM, CHIME, and Society for Health Systems of the Institute of Industrial Engineers (SHS) joined HIMSS in sponsoring IMS week.

Publications: The *Journal of Healthcare Information Management* covered the following four topics in the 1999 editorial year:
- Healthcare Call Centers, guest edited by Toni Baych;
- Information Systems Supporting Integrated Delivery Networks, guest edited by Pamela V. Matthews;
- The Computer-Based Patient Record, guest edited by Nancy Stetson; and
- Long Term Care Information Systems, with guest editor Jake McQueen, CHE.

HIMSS News: In September 1999, HIMSS members received *HIMSS News* with a brand-new face, as HIMSS introduced a redesigned monthly newsletter. At the same time, *HIMSS News* rolled out two new columns to meet member needs: *Industry News*, which provided news clips of events relevant to the healthcare/IT industries; and *Legislative News*, which profiled industry-related events in Congress.

Readership Survey: HIMSS conducted its first ever readership survey in 1999, and found that the vast majority of HIMSS members believe the Society is "keeping up the good work," by continuing to produce high-quality publications. The survey also found that 28% of respondents typically read half the journal. The "emerging issues" and "industry information" sections were considered the most helpful parts of *HIMSS News* by most of the 324 HIMSS members responding to the survey. Ninety-seven percent of respondents found computer-based patient records the most useful topic presented by the journal.

Resignation of Executive Director: After eight years, John Page resigned his position as HIMSS Executive Director in July 1999. R. Norris Orms, CAE, HIMSS chief operating officer, was named acting executive director in interim, until a new chief executive was hired.

2000 - Healthcare Made the Transition to Y2K

HIMSS 2000 attracted approximately 17,300 people to the Dallas Convention Center, April 9-13. CIOs turned out in all-time high numbers—a total of 696, an increase of 27% over 1999.

Exhibitors also came to HIMSS 2000 in record numbers: 643 companies sent representatives to the conference, up 31% from 1999. Onsite booth selection for HIMSS 2001 was available for the first time at the 2000 conference. Of the exhibiting companies, more than 300 participated in the selection process. More than 46% of the available exhibit space for HIMSS 2001 was reserved by the close of HIMSS 2000.

Conference attendees heard keynote speeches by:
- Former presidential candidate Ross Perot, discussing the human aspect of technology;
- NFL coach and pro-football Hall-of-Famer Mike Ditka, talking about the importance of teamwork and leadership; and
- Ian Morrison, PhD, internationally known author of such healthcare and business books as *Healthcare in the New Millennium: Vision, Values, and Leadership*, and the

bestselling *The Second Curve - Managing the Velocity of Change*, provided the industry keynote session, speaking about the driving forces for change in healthcare.

First Electronic Poster Sessions: The 2000 Annual HIMSS Conference & Exhibition featured a combination of education sessions, pre-conference workshops, meetings, roundtables, and networking opportunities. A new feature at the 2000 conference was electronic poster sessions accompanied by 20-minute live presentations.

Internet Viewing: Some 12 conference education sessions were made available over the Internet as live streaming audio to viewers around the world. Members and non-members who registered in advance could view sessions in real-time from their home or office computers. The sessions were also available for viewing on the HIMSS website for one year after the conference.

CIO Forum: The CIO Forum was offered for the first time in 2000: a CIO lounge and business center, senior management-focused educational track, CIO reception, and series of CIO/CEO executive briefings.

The Second Annual HIMSS Foundation Open gave visitors to the exhibit floor the opportunity to mini-golf for a good cause, and the chance to win $500 each day and a $2,500 grand prize on the final day of the conference. Final proceeds of more than $20,000 went to the Richard P. Covert Scholarship fund.

Richard P. Covert Scholarship Auction: A not-so-silent auction also raised funds for the Covert scholarship, awarded to one undergraduate and one graduate student for efforts in the field of healthcare information and management systems, and gave conference attendees a chance to bid on prizes such as airline tickets, footballs autographed by Mike Ditka and Gayle Sayers, digital cameras, and DVD players.

The Integrating the Healthcare Enterprise (IHE) initiative demonstration was another special feature of HIMSS 2000. The demonstration's purpose was to show attendees how different technology standards can be used in a healthcare environment to exchange information required to facilitate and support the patient care process without costly interfaces.

Awards: HIMSS awards were presented at the conference in a special evening ceremony.
- Stephanie Reel, chief information officer (CIO) and vice president, Johns Hopkins Hospital and Health System in Baltimore, received the John E. Gall/CIO of the Year Award.
- Richard P. Covert Scholarships were presented to Adam Wilcox, graduate student at Columbia University, New York, and Matt Raine, undergraduate at Iowa State University in Ames, Iowa.
- Article of the year awards were given to Leslie Perrault and Jane Metzger for their article "A Pragmatic Framework for Understanding Clinical Decision Support."
- Stephen Veazie won for his article, "Computer-Based Patient Records Can Accelerate Software Component Commerce."

- John Griffith, MBA, FACHE, received the award for book of the year for *The Well Managed Healthcare Organization.*
- Four articles received awards in the Technical Paper of the Year category:" Liability for the Year 2000: What Hospitals Need to Know," by Diana J.P. McKenzie; "Clinical Benchmarking Using National Experience - A Reality Test," by William B. Munier, MD; "Medical Expert Systems: How Do We Get There from Here?" by Herbert J.Doller, PhD; and "Not Web TV - Web and TV: Advancing Patient Care," by Scott Brown, Robert Buckland, MD, Greta Umidi, and Richard Lobb, MBA.
- Chapter Innovation Awards were presented to the HIMSS Georgia Chapter as both First Place Runner Up and Grand Prize Winner; and Central Florida Chapter of HIMSS as Second Place Runner Up.
- The Quality Management Award was presented to BJC Health Systems - The Center for Healthcare Quality and Effectiveness.
- Constituency Awards were presented to Pamela Matthews, in Clinical Systems; Deborah Krau, in Information Systems; E. June Logan, in Management Engineering; and Penny Hillyer, in Telecommunications.

Leadership Survey: The 11th Annual Leadership Survey, sponsored by IBM Global Healthcare, was available for completion online prior to the conference for the first time this year. Participants were able to complete the survey, beginning in mid-March, in addition to being able to complete it onsite at the conference. In fact, participation in the 2000 survey rose 11% over 1999, with 1,111 senior executives and managers from healthcare provider and vendor organizations around the world responding.

According to final survey results, the remainder of Year 2000 was spent gearing up for HIPAA and e-healthcare. Seventy percent of survey respondents indicated that they would concentrate on HIPAA compliance over the next two years, and 44% said they would also be working to develop e-health infrastructures and applications. Improving efficiency was also an important future priority for 60% of survey respondents, and cost-cutting efforts for 55% of the interviewed healthcare providers.

Member Services

Special Interest Groups: The HIMSS Board of Directors voted to institute a special interest group (SIG) structure for HIMSS members, to replace the old constituency model, and strengthen and enhance HIMSS' sense of community. Special interest groups became active July 1, 2000.

United Dues Model: Another change in the structure of HIMSS membership was a unified dues model. Beginning July 2001, HIMSS members would automatically become members of their local chapters when they joined HIMSS or renewed their membership. Individuals seeking membership could also choose limited chapter membership, if they were not interested in HIMSS national benefits and services.

First Future Chapter Leaders Workshop: HIMSS held the first Future Chapter Leaders

Workshop, September 17–18 in Chicago. Tracey Davenport and Cynthia McKinney presented an interactive session focusing on best practices and helpful hints for leading successful chapters. Philip Lesser, PhD, CAE, vice president of Bostrom Corporation, a Chicago management and consulting firm specializing in not-for-profit organizations, discussed association management. Paula Cozzi Goedert, a partner with the law firm Jenner & Black, provided explanation of tax and legal issues for chapter leaders.

Chapter leadership training: Via teleconference, HIMSS also began offering chapter leadership training in summer 2000, exploring such topics as membership campaigns, financial management, board communication, successful programs, and e-publicity.

Mentoring Program: HIMSS also instituted a mentoring program in 2000, through which HIMSS members seeking advancement could work with a HIMSS Fellow (FHIMSS).

Chapters: The **Bluegrass Chapter** of HIMSS, serving healthcare professionals in Kentucky, was approved by the HIMSS Board of Directors on August 13, 1999. The chapter represents 50 members in the clinical systems, information systems, management engineering, and telecommunications areas. On October 15, 1999, the HIMSS Board approved the **South Carolina chapter** of HIMSS to serve healthcare professionals in that state.

JobMine: A new online job posting and job search website, HIMSS JobMine ®, was unveiled April 1, 2000. The search engine provided HIMSS members with a more sophisticated, industry-specific job search tool to compete with the proliferation of other recruitment websites.

Member Benefits: Two new member-benefit magazines were added in 2000 to the growing list of publications that are part of HIMSS' benefits of membership. Members may choose to receive *Managed Healthcare News* and *Hospitals & Health Networks* magazine, in addition to *ADVANCE Magazine for Healthcare Executives, Health Data Management, Healthcare Informatics*, and *Modern Healthcare*.

Education

- The first HIMSS professional education program of 2000 was "A Comprehensive Look at Nursing Informatics" on February 4, 2000, at Cedars-Sinai Medical Center in Los Angeles.
- HIMSS participated in the 2000 Healthcare Symposium, March 6–8 in Orlando. Sessions explored such topics as informatics for outcomes management, physician profiling, corporate finance, and managing change in the 21st century. HIMSS sponsored a program titled, "Using Information Technology to Improve Business Performance and Manage Growth." The Symposium was jointly sponsored by HIMSS, the American College of Healthcare Executives (ACHE), American College of Physician Executives, and the Healthcare Financial Management Association.
- On March 9, 2000, HIMSS sponsored the Long-Term Care: Clinical and Financial Applications Conference at the Jewish Home in New York City. Sessions at the day-long conference included case studies, a regulatory update, and a vendor information session.
- Spring professional education programs included The Reality of the Electronic Medical Record, May 18–19, 2000, in Vienna, Va., and The Systems Integration Challenge, June 15–16, 2000, in Philadelphia.

HI&T Week: Healthcare Information and Technology Week (HI&T Week), a program supported by all of the Joint Healthcare Information Technology Alliance (JHITA) organizations, recognizes information and management systems (IMS) professionals and offers education programs for information systems, management engineering, and telecommunications professionals. HIMSS and JHITA-partner members (CHIM, CHIME, AMIA and AHIMA) were encouraged to promote HI&T Week at their organizations through various awareness-raising activities.

Publications

The Journal of Healthcare Information Management published four issues in 2000:
- The Summer journal looked at Clinical Decision Support Systems, and was guest edited by Blackford Middleton, MD, vice president for clinical informatics, MedicaLogic.
- Marian Celli, LCDR, NC, USNR, deputy functional manager, CHCS II Program Office, Clinical Business Area, served as guest editor for the Fall journal on Clinical Systems Applications.
- The Winter journal, Telehealth: Changing Healthcare Delivery in the Twenty-First Century, was guest edited by Lieutenant Colonel Rosemary Nelson, program manager and CIO, Pacific Regional Program Office, U.S. Army Nurse Corps.
- The Spring journal looked at The Influence of the World Wide Web, and was guest edited by Deborah Kohn, MPH, RHIA.

Public policy outreach begins: The HIMSS Board approved the Advocacy Task Force's recommendation in February 2000 to allow HIMSS to become involved in public policy activities. The Advocacy Committee was formed in February 2000 under the chairmanship of Ijaz Bokhari.

New president and CEO named: In May 2000, H. Stephen Lieber, CAE, became the new HIMSS President and Chief Executive Officer.

2001 – HIMSS Introduced Onsite Bookstore at Annual Conference

The 2001 Annual HIMSS Conference & Exhibition was held from February 4-8 in New Orleans. The meeting attracted more than 17,000 healthcare professionals with 175 workshops and more than 725 exhibitors.

Introduced at the Annual HIMSS Conference in New Orleans:
- "Views from the Top" education sessions with nationally recognized speakers who are experts on key industry topics;
- HIMSS Bookstore with HIMSS publications at special prices for attendees; and
- New education tracks on e-Health, international, and patient safety.

Member Services

Chapters: HIMSS welcomed the new Louisiana chapter in February.

HIMSS Foundation Revamped: After the resignation of John A. Page as executive director in 1999, a committee was established and charged with reexamining the role of the HIMSS Foundation. A number of meetings had taken place since that time to rewrite the Foundation's bylaws. As a result, a more active Foundation Board was established and Richard Covert became the first president of the new Foundation in 2001.[1]

Awards

The Leadership Award was established in 2001. The 2001 HIMSS Awards Dinner was held at the Fairmont Hotel with HIMSS Chair, Walter R. Menning, as the master of ceremonies.

The awards announced at the event were:
- The John E. Gall Jr./CIO of the Year Award was presented to Charles C. Emery, Jr., PhD, FCHIME.
- The John A. Page, Outstanding Service Award was presented to Justin A. Myrick.
- The Distinguished Fellows Service Award was presented to Nancy E. Aldrich and Justin A. Myrick.
- The Article of the Year Award was presented to Brian Pomeroy and Evan Crawford for "Putting the Web to Work at the Children's Hospital of Philadelphia," published in the *Journal of Healthcare Information Management*.
- The Book of the Year Award was presented to David Ellis for *Technology and the Future of Health Care.*
- The Technical Paper of the Year Award was presented to Marianne S. Charbonneau and Paul Torrey for "Internet-Enabled Disease Management: A Provider/Patient Collaboration"; and to J. Peter Weil and Elaine Remmlinger for "Providers Beware: Commitments Are Compromised When Vendors and Consultants Hit Wall Street."
- The Chapters Innovation Award was presented to the South Florida Chapter of HIMSS (Grand Prize); Minnesota Chapter of HIMSS (1st Place Runner Up); and Oregon Chapter of HIMSS (2nd Place Runner Up).
- Richard P. Covert Scholarships were presented to Jenny Peterson, University of Wisconsin (undergraduate); Eneida A. Mendonca, MD, Columbia University (graduate); and Elizabeth Crowell, Georgia Institute of Technology (graduate).
- Lifetime Membership Awards were presented to Richard J Coffey, Barry T. Ross, Richard L. Rydell, and Robert N. Davis.

Research/HIMSS Leadership Survey: HIMSS conducted the 12th Annual HIMSS Leadership from December 20, 2000 – February 8, 2001. Key findings were based on 953 responses and included:
- Upgrading security of IT systems to meet federal HIPAA regulations was top priority for healthcare information technology in the next 12-24 months.
- Gearing up to meet new federal HIPAA regulations for security of patient information was the leading business issue facing healthcare management in the next two years.

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[1] The HIMSS presidents are listed in Appendix VI.

- Although security and finances top the list of executive concerns, hospitals were prioritizing their capital spending starting with upgrades to clinical information systems.
- The most widely used information technology in healthcare was high-speed networks.

Research/HIMSS Member Satisfaction Survey: This survey was conducted August 2-31, 2001, by an outside organization, the HSM Group, Ltd.; 696 individuals responded. Key scores held steady in member satisfaction, perception of value and intent to renew membership. Nine out of 10 members indicated that they would renew their membership.

U.S. Healthcare Industry Quarterly HIPAA Survey Results: HIMSS conducted this survey with Phoenix Health Services, Inc., in fall 2001. With 519 respondents, the survey's key findings indicated:
- Over half of all survey participants, across all segments of the healthcare industry, reported that their organizations were actively working on HIPAA assessments and project planning.
- 16 percent of vendors and seven percent of payers would not be ready to transmit or accept all transaction by the October 16, 2002 transactions deadline.
- Most frequently cited roadblock to compliance reported by providers was "not enough time."

2001 Davies Award Recipients: The 2001 recipients of the Davies Award of Excellence were announced on July 13:
- The University of Illinois at Chicago Medical Center – Chicago, Ill.
- Ohio State University Health System – Columbus, Ohio
- Heritage Behavioral Health Center, Inc. – Decatur, Ill.

2002 – HIMSS Held First Advocacy Day in Washington, D.C.

HIMSS provided vendors with additional opportunities at the 2002 annual conference, held in Atlanta, Ga. on Jan. 27 – 31, by introducing the

- Exhibitor New Product Showcase, an exhibitor area with new products/services.
- Certification in Healthcare Information & Management Systems (CPHIMS) with a certification examination held at the annual conference.
- Research, Development & New Technology Center, a demo area with new IT solutions from new and start-up companies, research organizations and universities.
- Vendor Product Sessions, where healthcare IT companies present their solutions in a classroom environment.

HIMSS Summer Conference 2002: The Society introduced its HIMSS Summer Conference in Las Vegas in June 2002. Almost 400 people attended this high-level conference that was designed to meet the needs of senior IT executives, senior operations executives, physicians, and IT managers from provider and supplier organizations. Educational sessions covered patient safety, CPOE, IT strategy, emerging technologies, and the electronic health record.

Member Services

Center for Healthcare Information Management: HIMSS reunited with the Center for Healthcare Information Management (CHIM) in January following approval by both boards in May 2001 and HIMSS members in July 2001.

Membership

As of January 1, 2002, HIMSS membership totaled 11,714. HIMSS welcomed the Arkansas and Oklahoma chapters in February 2002 and the Michigan and Tennessee chapters in June 2002. In March 2002, two new special interest groups were added: Senior Executive SIG and Supply Chain Management SIG.

Awards

The 2002 HIMSS Awards Dinner was held in the Grand Ballroom at the Georgian Terrace Hotel during HIMSS02. The master of ceremonies was Gregory Walton, FHIMSS, chair of the HIMSS Board of Directors. Awards presented were:

- The John E. Gall Jr./CIO of the Year Award was presented to Richard I Skinner.
- The John A. Page/Outstanding Service Award was presented to Paul R. Vegoda and T. Wayne Anderson.
- The Leadership Award (established in 2001) was presented to Rudolph A. Guerrero, Scott A. Klink, Katie G. Mazzuckelli, Pamela G. McNutt, Walter R. Menning, Rosemary Nelson, and John L. Templin.
- The Distinguished Fellows Service Award was presented to Peter J. Ryerson and John L. Templin, Jr.
- The Article of the Year Award was presented for "Road Map for the Development of an E-Healthcare Strategy," by Rene Gilbert; Edward S. Johnson, DDS, MBA; and Catherine Szenczy (JHIM Spring 2001).
- The Book of the Year Award was presented to Russell C. Coile, Jr, for *Futurescan 2001: A Millennium Forecast of Healthcare Trends 2001 – 2001*.
- The Technical Paper of the Year Award was presented for "PatientSite: A Web-based Clinical Communication and Health Education Tool," by Daniel Z. Sands, MD, MPH, John D. Halamka, MD, MS, and Dianne Pellat.
- The Outstanding SIG Member Award was presented to Joseph P. Brown, Telecommunications SIG; Major Drexel G. DeFord, Air Force CIOs SIG; Jason D. Oliveira, Data Warehousing/Data Mining SIG; and Roy F. Rada, HIPAA SIG.
- The Chapters Innovation Award was presented to the Minnesota Chapter (Grand Prize); Northern Ohio Chapter (1st Place Runner Up), and the Wisconsin Dairyland Chapter (2nd Place Runner Up).
- Richard P. Covert Scholarships were awarded to Christina D. Finger, North Dakota State University (undergraduate); and Mark D. Hiatt, CPHIMS, University of Virginia (graduate).
- HIMSS Foundation PhD Scholarship was awarded to James H. Ford II, FACHE, University of Wisconsin, Madison.
- Lifetime Membership Awards were presented to Andrew R. Ganti, William Richel, Howard E. Fagin, William R. Andrews, Chester S. Smith, and Larry D. Grandia.

Advocacy

HIMSS expanded its public affairs and advocacy efforts in 2002 with the addition of a Director of Public Affairs. The first HIMSS Advocacy Day was held in April 2002 in Washington, D.C., with about 40 individuals attending this first event at the Marriott Hotel.

HIMSS members made 16 visits to members of Congress or their staffs as part of this first advocacy event, which was designed to introduce the board and Advocacy Committee to this new activity.

Research

13th Annual HIMSS Leadership Survey (CIO Results): HIMSS conducted its 13th Annual HIMSS Leadership Survey during the seven-week period beginning on November 19, 2001. Key findings, which are based on the responses of 355 individuals, include:

- Upgrading security on IT systems to meet HIPAA requirements was the top IT priority for today and the future.
- Clinical information systems ranked as the most important healthcare application for healthcare organizations in the next two years.
- Promoting patient safety/reducing medical errors was the second most-pressing current IT issue identified by respondents.
- Wireless, hand-held devices, data security, and voice recognition all were high-priority technologies for the next two years.

13th Annual HIMSS Leadership Survey (CEO Vendor Results): The CEO Vendor Portion of the Leadership Survey was conducted during the same seven-week period beginning November 19, 2001. Key findings are based on the responses of 96 individuals and include:

- Respondents reported that security upgrades on IT systems to meet HIPAA requirements was their clients' top priority; it was projected to remain a priority in the next two years.
- Clinical information systems were identified most frequently as the most important healthcare application area for clients over the next two years.

HIMSS/Hersher Associates Job Satisfaction Survey: HIMSS and Hersher Associates, a healthcare search firm located in the Chicago area, conducted this survey from January 21 – February 22, 2002. The survey had 360 respondents and key findings indicated:

- Respondents most frequently identified salary as an item they evaluate regarding satisfaction level with their current position. It also topped their list as the factor most likely to be used to evaluate whether they would accept a future position.
- Respondents most frequently cited career growth as the reason they left their last position.
- Nearly half of the respondents indicated that the ability to balance their career and family obligations was important in evaluating their job satisfaction.
- Benefits and perks were not as important as other key factors, such as career growth and salary, in evaluating current job satisfaction.

2002 HIMSS Hot Topics Survey: HIMSS conducted this survey from January 27-31, 2002. With 619 respondents, key findings included:

- September 11, 2001, acted as a wake-up call to Americans, and a majority of survey respondents were reevaluating security in response to these events.
- Over half of survey respondents had a plan in place for a bio-terrorism attack.

- Based on the December 2001 extension for compliance with HIPAA, one-third of respondents did not believe that the delay would affect their organizations.
- Nearly three-quarters of respondents were turning their focus to using IT to improve patient safety.

2002 HIMSS Annual Compensation Survey: Conducted from March 18 – April 12, 2002, the survey resulted in 1,581 responses. Key findings were:
- As of January 1, 2002, the average salary for all respondents was $91,267.70.
- The majority of respondents indicated that the timeframe between their last salary increase, and their next increase was 12 months.
- Less than half of survey respondents received a bonus in 2002.
- Nearly all respondents reported receiving some level of benefits from their employer.
- Nearly half of all the respondents identified data security as the most-important technology to their healthcare client.

U.S. Healthcare Industry Quarterly HIPAA Survey – Winter 2002: HIMSS conducted this quarterly survey with Phoenix Health Systems in early January 2002 to gauge HIPAA compliance. Final results are based on the responses of 774 individuals. Key findings include:
- Covered entities would not be ready to transmit HIPAA standard transactions by the original compliance deadline of October 16, 2002.
- Vast majority of respondents reported that their organizations were continuing to build HIPAA awareness and had initiatives well "under aware" on HIPAA assessments, project planning and implementation.
- Reported provider budgets for 2002 were significantly higher than 2001 spending on HIPAA compliance.
- According to 75% of vendor representatives, the quality of their products would be improved as a result of HIPAA-related changes.

U.S. Healthcare Industry Quarterly HIPAA Survey, Spring 2002: HIMSS and Phoenix Health Systems conducted this survey during the first two weeks of April 2002; there were 659 respondents. Key findings included:
- The proposed modifications of the Privacy Rule, by the Department of Health and Human Services, (HHS), were not expected to negatively impact implementation efforts or timeliness among industry segments.
- Most survey respondents planned to use a strategic approach to HIPAA compliance, as opposed to a minimum compliance approach.
- Reported budgets for 2002 were significantly higher that 2002 spending on HIPAA compliance.

U.S. Healthcare Industry Quarterly HIPAA Survey: Summer 2002: HIMSS and Phoenix Health Systems conducted this survey in early July 2002 with 687 people responding. Key findings were:
- The survey no longer had to ask respondents if they have begun HIPAA initiatives; now questions could focus on how much work had been completed within the HIPAA compliance cycle.

- Largest roadblock to compliance came not from budget issues or other internal circumstances, but from difficulties in understanding and interpreting changing legal requirements.

- Although very few respondents had finished HIPAA remediation projects, respondents were making significant progress through gap assessment, and planning and implementation initiatives.

U.S. Healthcare Industry Quarterly HIPAA Survey: Fall 2002: HIMSS and Phoenix Health Systems conducted this survey early October 2002; the survey had 965 respondents. Key findings were:
- HIPAA support from senior officers, initially difficult to achieve, remained generally strong.
- The healthcare industry was moving slowly toward achieving compliance. Major roadblocks to HIPAA compliance included interpretation of results and not enough time. Cost concerns, issues of state preemption, and lack of industry best practices were increasingly being cited.
- Over 80 percent of all respondents applied for the Transactions deadline extension from October 2002 to October 2003.
- Across the industry, HIPAA budgets were generally higher for 2003 than for 2002.

HIMSS/AstraZeneca Clinician Wireless Survey: This survey, conducted from August 8-26, 2002, resulted in 453 responses. Key findings were:
- Nearly all of the physicians' offices in the sample had at least one desktop and/or laptop computer. Almost three-quarters used handheld technology.
- Technology in physicians' offices was most frequently used for administrative functions, rather than clinical functions.
- Only 20% of offices used e-mail to communicate with patients about clinical issues.
- Almost all respondents indicated that they would buy software, hardware, and other technology in 2002.

2002 HIMSS Individual Member Satisfaction Survey (not released to the public): This survey was conducted September 16-30, 2002, and had 830 respondents. Key findings were:
- Slight decline in member satisfaction; despite decline, most members did not feel that the value of their HIMSS membership had declined in the past year.
- Members validated the current strategic direction of HIMSS, as well as the Society's future path.
- Respondents were also very much in-line with the efforts that HIMSS was making to become a leader in IT issues impacting the healthcare industry.

2003 – CPRI-Host Merged with HIMSS

2003 HIMSS Annual Conference & Exhibition: At the 2003 Annual HIMSS Conference & Exhibition, healthcare information technology and management professionals, vendors, providers, consultants and payers come together to learn more about the latest trends, new products, and health IT innovations and solutions. HIMSS03 was held February 9-13 in San Diego, with more than 19,500 individual attendees and 686 exhibiting companies represented.

Keynote speakers included:
- Jeffrey R. Immelt, chairman of the board and CEO of General Electric;
- Rudolph Giuliani, former mayor of New York City, who led the city through the September 11th tragedy; and
- Patch Adams, a physician famous for his radical views of healing as a human interchange, not a business transaction.

New symposia introduced: The AMDIS Physicians Symposium and the International and Student Symposia were introduced at the 2003 conference to extend a unique educational opportunity to these audiences. Based on the success of these programs, HIMSS would offer them again at HIMSS04 in Orlando, in addition to a new Nursing Informatics Symposium.

Fact finding hearing: Also at HIMSS03, a public policy Fact Finding Hearing was held for the first time. At the hearing, expert witnesses provided testimony that was sent to federal governmental policy makers on the electronic health record.

Exhibits and sessions: More than 200 educational sessions were offered. Topics of interest included the Health Insurance Portability and Accountability Act (HIPAA), disaster preparedness, computerized provider order entry (CPOE), and patient safety. In addition, a special exhibition area for university degree programs in healthcare informatics was offered, as well as areas for the Department of Defense/Military Health System, and Integrating the Healthcare Enterprise (IHE). The IHE Exhibit featured user success stories describing successful implementations of the IHE integration profiles, which have resulted in cross-vendor interoperability in radiology settings.

HIMSS Summer Conference 2003: The Society held its second summer meeting in June 2003 in Chicago, with approximately 375 people attending. As part of the HIMSS Summer Conference 2003, the first HIMSS/*Modern Healthcare* CEO IT Achievement Award was presented to recognize healthcare industry chief executive officers who demonstrated leadership and commitment to using information technology to advance their healthcare organization's strategic goals. The recipients of this first award were:
- George Vecchione, president and CEO, Lifespan in Providence, RI; and
- Pete Velez, executive director, Elmhurst (NY) Hospital Center, and senior vice president, Queens Health Network

CITL – The Center for Information Technology Leadership (CITL): CITL was founded by Boston-based Partners Healthcare to help healthcare providers maximize the value of their information technology investments and help technology firms improve the value proposition of their healthcare products. HIMSS entered into a strategic alliance in 2002 with the newly formed CITL, which provides unbiased research assessments of new clinical information technologies for the healthcare industry and disseminates the findings through published industry reports and symposia. The first CITL report, offering a model for investment analysis of ambulatory CPOE, was published. The first CITL symposium was held in Chicago in June 2003, providing the healthcare industry with high-level research to maximize its information technology investments, and ultimately, improve patient care.

Advocacy

The Society expanded its national presence through a proactive visibility campaign that included the opening in 2003 of an office in Washington, D.C., to better serve its members and strengthen the Society's position and relationships with key decision makers on public policy issues related to health IT. In addition, the Society took formal positions on six key pieces of federal healthcare information technology legislation.

New advocacy initiatives established in 2003 included:
- Creating a HIMSS Government Relations Roundtable to give vendor members an opportunity to meet monthly to access and advocate industry positions with key federal leaders;
- Hosting annual HIMSS Advocacy Days on Capitol Hill to inform members and key federal leaders of the Society's policy agenda and to give HIMSS members opportunities to visit their elected officials;
- Sponsoring HIMSS Advocacy Forums on top policy issues with government and industry executives to promote creative solutions to complex problems;
- Launching the HIMSS Advocacy Award. It was presented in 2003 to the Honorable Nancy Johnson, Chair of the U.S. House Ways and Means Health Subcommittee, for her outstanding leadership and collaboration with HIMSS;
- Co-sponsoring congressional luncheon seminars and technology demonstrations to educate federal officials on the value of technology for bettering human health;
- Introducing the HIMSS Legislative Action Center to electronically connect members with leaders and issues in order to advocate the Society's positions;

And
- Adding a Chapter level to HIMSS Advocacy Outreach Board position.

Advocacy Day on the Hill: The Second HIMSS Advocacy Day on the Hill was held in April 2003 in Washington, D.C., at the Reserve Officers Association HQ building on Capitol Hill. About 120 individuals attended to hear former House Speaker Newt Gingrich and HHS Senior Advisor Bill Yasnoff speak on current issues. HIMSS members made 28 visits to members of Congress or their staffs.

The day ended with a Vendors Solutions Showcase in Rayburn House Office Building, Room B-339, from 5 – 7 p.m. with the following demonstrations: DoD, SAIC, IHE, Eclipsys, McKesson, Misys, PricewaterhouseCoopers, Siemens, Sun, Philips, Per-se, Symantec, and IDX. Over 150 individuals attended the reception, including congressional members Dave Hobson, Jim Moran, and Nancy Johnson, and 30 congressional staff.

Public Policy Forum: The Society also launched the HIMSS Public Policy Forum, an annual event that looked at federal investment in the electronic healthcare information infrastructure

Merger with CPRI-HOST: HIMSS and CPRI-HOST merged on July 1, 2002, to create a definitive information resources and expertise that helped the Society better target issues related to electronic health records, their design, implementation, and patient care impact.

Electronic Health Record: The merger of HIMSS and CPRI-HOST established HIMSS as the source for information and leadership on the electronic health record. HIMSS became the new

sponsor of the Davies Awards of Excellence that recognize excellence in the implementation of the EHR.

Davies Award of Excellence program: In addition, the nationally acclaimed Nicholas E. Davies Award of Excellence program, which recognizes excellence in the field of EHRs, was continued with HIMSS' backing. The Davies Organizational Award, which recognizes large healthcare organizations, was complemented by the addition in 2003 of the first Nicholas E. Davies Award for Independent Primary Care Practices. Both are awarded annually with winners of the Organizational Davies announced in September and winners of the Independent Primary Care Award announced in October.

EHR initiatives: The HIMSS EHR Committee was actively leading multiple efforts on this initiative. These included:
- The EHR Committee completed the HIMSS EHR Attributes, a document that described eight attributes of an electronic health record and the measures to determine if these attributes are fully implemented within a healthcare setting.
- HIMSS was the private sector sponsor, with the Centers for Medicare and Medicaid Services (CMS), Department of Veterans Affairs (VA) and Health Level Seven (HL7), of the HL7 Definitional Model. This model was a national standards- based effort to define the EHR. To help obtain provider input into this effort, HIMSS was an active member of the EHR Collaborative, which sponsored town hall meetings in six cities in August 2003.
- HIMSS, in collaboration with ASTM International, the Massachusetts Medical Society and the American Academy of Family Physicians (AAFP), worked on developing a Continuity of Care Record (CCR), a standard for a minimal data set of patient-specific information.

2002 Davies Award Winners: With the merger of CPRI-HOST and HIMSS, the 2002 Organizational Davies Award of Excellence winners were announced later in the year on January 15, 2003. They were:
- Maimonides Medical Center – Brooklyn, NY.
- Queens Health Network – Queens and Elmhurst, NY.

Independent Primary Care Davies Award: HIMSS introduced the Independent Primary Care Davies Award of Excellence in May 2003. The award was designed to recognize primary, independent care practices with no more than 32 physicians that have succeeded with implementations of electronic health records in their practices.

Formation of committees and work groups that focus on the electronic health record: HIMSS broadened its focus on the adoption of the electronic health record with the formation in 2003 of one committee and three work groups that addressed different elements of the EHR. Volunteer HIMSS members chaired each group. They were:
- **EHR Steering Committee** – February 2003 – Chair, Michael Glickman. The goal of the committee was to foster a wider acceptance of the EHR in the healthcare industry.
- **EHR Strategic Plan Work Group** – March 2003 – Lead, Jack Corley. Goal was to develop a strategic plan that would guide the work of the EHR Steering Committee, related Task Forces/Work Groups and collaborative efforts with additional groups that were working on fostering the growth and utilization of an EHR.

- **Definition and Attributes of the EHR Work Group** – March 2003 – Lead, Charlene Underwood. Goal was to develop the HIMSS' perspective on EHR attributes and define essential features of an EHR.
- **The EHR Implementation Guide Work Group** – March 2003 – Lead, Joe Miller. Goal was to develop a guide to help organizations plan comprehensive EMR/EHR strategies.
- **The Minimum Emergency Data Set Work Group** – March 2003 – Lead, Jack Corley. Goal was to develop a white paper that identifies the minimum information needed in an emergency department and emergency response arena to support both public health and emergency care delivery needs.
- **The Voluntary Patient Identifier Work Group** – May 2003 – Lead, Rick Holtmeier. Goal was to address the problems involved in identifying patients to permit the sharing of medical information among providers.

Standards: HIMSS expanded its support of standards activities by accepting the appointment by the American National Standards Institute to be the Secretariat for the International Organization of Standardization Technical Committee for Health Informatics (ISO/TC 215) and administrator of the U.S. Technical Advisory Group.

Accepting this appointment followed the HIMSS strategic goal to expand the expertise and knowledge of healthcare information professionals who frame and lead healthcare legislation, regulations, policies, standards, and practices. These activities would provide opportunities for HIMSS members to contribute to the development of international healthcare informatics standards that affect the global enterprise and to work in collaboration with the most prominent healthcare informatics experts in the world.

Research

HIMSS collaborated with industry leaders on research throughout the year; topics addressed in 2002 and 2003 include industry compensation, job satisfaction, the use of technology in the ambulatory market, supply chain, staffing and technology and patient safety.

14th Annual Leadership Survey, sponsored by Superior Consultant Company: HIMSS released data from this survey in February 2003 HIMSS03. The survey allowed hospital CIOs, CEOs, and physician and nurse executives, as well as CEOs
in the vendor community, to address the top technologies, priorities, and implementation barriers of the industry.

Member Services

Individual membership: Individual members represented healthcare professionals in hospitals, corporate healthcare systems, clinical practice groups, healthcare information technology supplier organizations, healthcare consulting firms, and government settings in professional levels ranging from senior staff to chief information officers (CIOs) to CEOs.

Corporate membership: More than 200 HIMSS corporate members included leading software and hardware suppliers, consultants, executive recruiters, publishers, ehealth, telecommunications firms, and other IT and healthcare industry professionals.

Users Group Alliance Program: HIMSS introduced the Users Group Alliance Program during 2003 to broaden its education and support offerings to users of various technology platforms in healthcare. As part of the program, Sun Microsystems formed its users group – SunSHINE (Sun Solutions for Healthcare: Information, Networking, Education) and MS-HUG (Microsoft Healthcare Users Group) unified with HIMSS as well during 2003. Members of HIMSS Users Group Alliance Programs were individual or corporate members of HIMSS, receiving full membership benefits; all HIMSS members also could participate in any of the user groups.

Chapters: HIMSS had 42 chapters throughout the United States and offered all members an opportunity to join special interest groups that brought together professionals with an interest in a special issue – or to serve on various committees.

Education
HIMSS audio conferences and on-line education: Throughout the year, HIMSS offered various audio conferences on key and timely issues, such as HIPAA compliance and the EHR, with well-known speakers conducting the presentation and question-and-answer session. Online education programs feature interactive tutorials, lectures, resource guides and quizzes. Courses were continually developed and updated to keep users current with the latest issues and body of knowledge with topics including career development, EHR, patient safety, HIPAA, and computerized order entry, to name a few.

Online education: HIMSS also entered into collaborations with two universities to extend the opportunity for higher-level education to members. The University of Connecticut and HIMSS launched their co-developed certificate program in healthcare information technology.

Additionally, Oregon Health Sciences University extended its graduate level certificate program in healthcare information technology. Additionally, Oregon Health Sciences University extended its graduate level certificate program in healthcare information technology at a discount to HIMSS members who wish to gain formal education in healthcare informatics.

Publications
Books from HIMSS: The HIMSS publications department continued to provide the healthcare IT industry with leading book titles in the field. Three major titles released during 2003 were:
Effective Management of Healthcare Information: Leadership Roles, Challenges and Solutions, by David S. Memel
Return on Investment: Maximizing the Value of Healthcare Information Technology, by Pam Arlotto and Jim Oakes
HIMSS HIT Forecast 2003 – 2007: The Digital Hospital, by Russell C. Coile, Jr.

Peer-reviewed Journal: *The Journal of Healthcare Information Management* provided members and other subscribers with a peer-reviewed publication covering key industry issues with the presentation of a current research as well as other articles. Each quarterly issue had a different theme: leadership in health IT, managing technology, security, and return on investment were covered.

New Initiative:
HIMSS Solutions Toolkit: Launched at the 2003 Annual HIMSS Conference & Exhibition, Solutions Toolkit was a web-based product containing competitive and strategic information for

the health IT industry. Solutions Toolkit gathered unbiased quantitative and qualitative data from the industry's leading intelligence resources in a single, integrated data warehouse. Users could view health IT product catalogs, side-by-side product comparisons, product peer reviews, IT department benchmarks, and hospital and healthcare system application profiles.

2004 – Alliance for Nursing Informatics and HIMSS Analytics Formed

During 2004, HIMSS focused on the adoption of an interoperable and portable electronic health record as part of a national healthcare information infrastructure. This initiative was international in scope as the Society continued to be part of and learn from the health informatics community throughout the world.

2004 Annual HIMSS Conference & Exhibition: HIMSS04 brought together more than 20,000 healthcare information and management systems professionals from all segments of the industry. Healthcare vendors, providers, consultants and payers converged on Orlando from February 22-26, 2004, to attend more than 200 education sessions, visit more than 700 exhibits and network with IT leaders in the healthcare industry.
> **Keynote speakers included:**
> - Newt Gingrich, former Speaker of the U.S. House of Representatives;
> - Dr. Gro Harlem Brundtland, former Director-General of the World Health Organization;
> - Congressman Patrick J. Kennedy (D-Rhode Island);
> - Aron Ralson, mountaineer who shared his story of survival and patient rehabilitation; and
> - Tom Wolfe, author.

Symposia: Recognizing the expanding and influential roles nurses play in clinical informatics, HIMSS introduced the Nursing Informatics Symposium, a one-day program designed by nurses for nurses and attended by more than 300 nursing informatics professionals. The Physicians' IT Symposium and International Program returned to the 2004 Conference, providing these key audiences with IT information and insights.

Member communities: Two special conferences for members of the HIMSS' users groups, Sun Solutions for Healthcare, Information, Networking and Education (SunSHINE) and Microsoft Healthcare Users Group (MS-HUG), offered education geared to developers and users of these vendor products.

New exhibit areas: To demonstrate IT solutions for implementation of electronic health records, HIMSS grouped exhibits and sessions together in two new exhibit areas - Product Pavilions and Emerging Technologies and Issues.

IHE/HL7 Collaboration: For the first time, HL7 and the Integrating the Healthcare Enterprise collaborated in an interoperability demonstration to raise awareness of the importance of standards and the national health information infrastructure (NHII).

HIMSS Advocacy Committee Fact Finding Field Hearing: This session asked the question: "Should the Federal Government Help Accelerate Clinician Adoption of the Electronic Health Record?" The testimony of expert witnesses on this topic was provided to key government policy makers.

Alliance for Nursing Informatics: In October 2004, 18 national and regional nursing informatics groups established the Alliance for Nursing Informatics (ANI). The boards of directors for both HIMSS and the American Medical Informatics Association agreed to provide ongoing support, coordination, and leadership for the Alliance.

The Alliance represents more than 2,000 nurses and brought together 18 distinct nursing informatics groups in the United States that function separately at local, regional, national and international levels and have established programs, publications and organizational structures for their members. The ANI Steering Team was formed with representatives of organizational groups that have a nursing informatics focus to guide the strategic goals and activities of the Alliance throughout the year.

HIMSS Summer Conference 2004 – Held in Las Vegas, the two-day summer conference gathered almost 400 healthcare senior level executives to review key healthcare issues from a strategic management perspective.

The conference featured six education tracks: the business of IT; clinical information systems; new technology; outsourcing; adoption, analysis and outcomes; and achieving excellence.

Keynote speakers were:
- Paul C. Tang, MD, FCHIME, CMIO, Palo Alto Medical Foundation, who chaired the Institute of Medicine Committee on Data Standards for Patient Safety;
- Arnold Milstein MD, MPH, medical director, Pacific Business Group on Health, worldwide partner at Mercer Human Resource Consulting, and co-founder of the Leapfrog Group; and
- Robert Stevenson, MBA, former all-American athlete, corporate executive and author of *How to Soar Like an Eagle in a World Full of Turkeys.*

At the Innovative Technology sessions, attendees learned about vendor healthcare IT solutions, now implemented in the marketplace, for nursing documentation, staffing, return-on-investment, and medication management.

Advocacy
HIMSS continued public policy and advocacy outreach in Washington, D.C., and at the grassroots level by both educating policy makers and influencing key legislation related to health information technology and the improved delivery of patient care. HIMSS reviewed over 20 separate legislative proposals involving patient safety, national health information infrastructure, offshore outsourcing, and electronic health records. Position statements were created on key legislative and regulation proposals.

Advocacy Day: At the annual HIMSS Advocacy Day in April, HIMSS members heard presentations from Representative Jim Greenwood (R-PA) and Dr. Rex Cowdry from the White House. Panels discussed key policy topics such as Voluntary Patient Identifiers and offshore outsourcing. The event was co-sponsored by eHealth Initiatives and AHIMA. Following the educational sessions, members visited with their respective legislators in Washington, D.C., to present the HIMSS policy agenda and discuss key health IT issues.

HIMSS Advocacy Award: At a congressional reception held in conjunction with the Vendors' Solution Showcase, the Honorable Tommy Thompson, Secretary of the U.S. Department of Health and Human Services (HHS), received the HIMSS Advocacy Award for his leadership and initiative in promoting the adoption of the electronic health record at an evening reception and technology demonstration. U.S. Representative Patrick J. Kennedy (D-Rhode Island) also addressed the attendees.

Public Policy Forum: At this year's event, participants discussed solutions to overcoming IT barriers in ambulatory care.

HIMSS continued to grow and evolve as a national advocate for health IT by providing monthly congressional updates for Capitol Hill staff on key issues of importance to the Society, visiting local HIMSS chapters to discuss advocacy, and collaborating with industry partners who share and can help deliver key input on health IT legislation.

21st Century Health Care Caucus: Working with key congressional staff and other associations, HIMSS helped launch the 21st Century Health Care Caucus, a bipartisan group of U.S. House members dedicated to improving healthcare using technology and management systems. HIMSS helped to recruit co-chairs, members, plan programs, and produce the monthly electronic newsletter.

Chapter Advocacy Liaison Roundtable: The Society launched this new grassroots effort of chapter advocates to promote advocacy and public policy at the chapter level.

Year-end Summary: HIMSS introduced an annual year-end event last year focused on summarizing current activities at the federal level surrounding health information technology issues and looking forward to new challenges. The first event was held jointly with the U.S. Medicine Institute Foundation policy forum in 2003, with a collaborative event planned with the 21st Century Health Care Caucus to review the effects of the November, 2004, U.S. elections on future health information technology policy.

New DC-area Office: HIMSS also opened a new Washington, D.C., area office at 901 King Street, Suite 400, in Alexandria, Va.

Federal Affairs: In addition to its advocacy initiatives, HIMSS expanded its outreach and staff to include federal affairs, the executive branch of the U.S. government. This effort was designed to positively affect the adoption of the electronic health record and leverage the collective HIMSS member expertise to assist the federal government's development of priorities for health information technology implementation.

National Coordinator's Office: The administration announced in September 2004 its goal that most Americans have access to electronic health records within the next decade. David J. Brailer, MD, PhD, was appointed as the first National Coordinator for Health Information Technology, a position within HHS that HIMSS had also advocated as part of its advocacy agenda. Dr. Brailer released a Strategic Framework document that called for patient and clinician-centric education initiatives to achieve a national health information network.

HIMSS and its members were actively involved in the efforts to bring Dr. Brailer's goals and actions to fruition, particularly the development of the Commission for the Certification of Health Information Technology.

Volunteer Member Involvement: HIMSS federal affairs efforts were supported by volunteer member involvement in the HIMSS National Health Information Infrastructure (NHII) Task Force, the National Preparedness and Response (NPR) Task Force, the HIMSS Government Relations Roundtable (HGRR), and the Chapter Advocacy Liaison Roundtable (CALR). These volunteer members have engaged federal agency representatives in policy discussions on such issues as disaster management, local health information exchange networks, and the potential impact federal efforts will have on health IT penetration.

Electronic Health Record: HIMSS continued to work for the passage of the HL7 Definitional Model for the electronic health record, which was a national standards-based effort to define the EHR. A mock ballot and education sessions provided attendees HIMSS04 with detailed information to better understand the benefits and positive impact of the HL7 definitional model. Following the conference and until summer 2004, when the draft standard was approved, HIMSS worked with the EHR Collaborative, other key health organizations, and stakeholders to ensure its passage.

Clinical Decision Support Implementers' Workbook: This workbook was published in February 2004, providing healthcare organizations guidance on developing and implementing clinical decision support (CDS) systems for clinical care. Developed by the HIMSS Clinical Decision Support Workbook Workgroup, the guide, including downloadable worksheet templates, was available on the HIMSS website. The second edition would be distributed in 2005 as an updated, printed workbook.

Clinical Information Systems (CIS) Benefits Database: The Society began work on a Clinical Information Systems Benefits Database to assist healthcare providers and organizations in the process of selecting CIS. By providing evaluations from organizations now using clinical information systems products, the database will focus on "advanced" CIS capabilities including computerized provider order entry (CPOE), CPOE-driven decision support, automated clinical documentation, electronic medical record (EMR) functionality and the ability to integrate ancillary systems. The HIMSS National CIS Benefits Database Task Force, led by an advisory group of national experts on CIS, planned to complete the development and introduction of the pilot version of the database in early 2005.

Continuity of Care (CCR) Record: HIMSS continued its efforts in support of the Continuity of Care Record (CCR), a standard for a core data set of the most relevant and timely facts about a patient's healthcare. The ASTM International, Massachusetts Medical Society, American Academy of Family Physicians, American Academy of Pediatrics, American Medical Association, and Patient Safety Institute are sponsors of the Continuity of Care Record. The CCR ballot was scheduled for December 2004.

Davies Award of Excellence: As manager of the Davies Award of Excellence, HIMSS awarded the first **Primary Care Davies Award** in 2003. Three recipients were chosen:
- Roswell Pediatric Center, Alpharetta and Cumming, Ga.;
- Cooper Pediatrics, Duluth, Ga.; and
- Evans Medical Group, Evans, Ga.

The recipient of the **Organizational Davies Award** was:
- Cincinnati Children's Hospital Medical Center in Cincinnati.

Public Health Davies Award: HIMSS introduced the Public Health Davies Award of Excellence in partnership with the Centers for Disease Control and Prevention (CDC), American Public Health Association (APHA), Association of State and Territorial Health Officials, Council of State and Territorial Epidemiologists (CSTE), National Association of City and County Health Officials (NACCHO), and the Association of Public Health Laboratories (APHL).

The award was open to any public health program, state or local, including tribal, that improved the health of a defined community through health information management. Recipients of the award would be announced in November 2004 at the American Public Health Association Annual Meeting and Exposition.

Ambulatory Care: The Society added a medical director to its staff in December 2003 to lead HIMSS in its ambulatory care, or outpatient, initiatives for the adoption by physicians of the electronic health record.

Certification Commission for Healthcare IT: To address the challenge many physicians face when selecting an EHR system for their practices, HIMSS introduced the Certification Commission for Healthcare Information Technology in collaboration with the National Alliance of Health Information Technology (the Alliance) and American Health Information Management Association (AHIMA). Designed as a voluntary, private-sector certification of EHR systems, in support the direction of the U.S. Department of Health and Human Services, the program would let physicians and other healthcare professionals select and implement these products with greater speed and confidence, knowing that patient data could be securely exchanged in the nation's developing health information infrastructure.

Physicians Adopting Computer Technology (PACT): In November, the Ambulatory Care Steering Committee launched a series of regional events designed to bring educational opportunities to physicians who wanted to computerize their practices while minimizing the interruption to their patient care schedules and those who want to maximize efficiencies of the installed systems. The program, PACT – Physicians Adopting Computer Technology, was conducted in Jacksonville, Florida, and Portland, Oregon. Physicians, who had successfully implemented health IT in their practices, provided keynote presentations, followed by two education tracks and a demonstration of vendor IT solutions.

Integrating the Healthcare Enterprise (IHE): The Integrating the Healthcare Enterprise expanded this year to include two additional components for the application of IHE in healthcaredelivery. The American College of Cardiology (ACC) introduced its technical framework in this clinical practice area. The initial three profiles, Retrieval of Electrocardiograms

for Display, Echocardiography Workflow, and Cardiac Catheterization Workflow, can help improve patient care by providing a common approach to collecting, coordinating and sharing cardiology images and information related to cardiology.

The Cross Enterprise Document Sharing supplement, one of four supplements in the information technology infrastructure framework, facilitated the sharing across healthcare settings – from a private physician to a clinic to an acute care in-patient facility – of electronic documents with text and structured content. This supplement contributed to the foundation of a shared electronic health record, a key initiative for HIMSS and the healthcare industry in the U.S.

Auto-ID Virtual Tour: The HIMSS Bar Coding and Auto ID Task Force introduced the "Auto-ID Virtual Tour," an online or CD-ROM review of the significant benefits that Auto-ID technologies bring to healthcare by taking a journey through a typical healthcare encounter.

Standards - ISO TC 215: As the secretariat for the Technical Committee 215 (TC 215) of the International Standards Organization (ISO), HIMSS continued its support of international standards activities for health informatics. The Society joined other international standards experts at a weeklong meeting in Washington, D.C., with 112 international delegates from 16 countries. Carolyn M. Clancy, MD, director of the Agency for Healthcare Research and Quality (AHRQ), was the speaker at a dinner sponsored by HIMSS.

New members joined the U.S. delegation to the international technical committee TC 215 that included (as of September 2004) AHRQ, the National Institutes of Health, Department of Veterans Affairs, and Department of Defense – Health Affairs participating with Siemens, Philips, GE Health solutions, Quadramed, Booz-Allen-Hamilton, Kaiser Permanente, United Health Care, and SNOMED and others.

Standards Task Forces: HIMSS launched two standards-related task forces this year. The Professional Practice Standards Task Force completed a business ethics standard while the Standards Task Force will provide an overview for all HIMSS standards initiatives and activities.

Member Services
HIMSS Membership: HIMSS membership reached 15,000 individual and 250 corporate members during 2004. The Society provided a diverse range of high-quality resources, including education, professional advancement, and networking for its individual members that included executives such as chief executive officers (CEOs), chief information officers (CIOs), and chief operations officers (COOs), and senior executives, and industry specialists such as senior managers, IS technical staff, physicians, nurses, consultants, attorneys, financial advisors, technology vendors, academicians, management engineers and students.

Corporate Members: HIMSS corporate members included leading software and hardware suppliers, consultants, executive recruiters, publishers, e-health, telecommunications firms, and other IT and healthcare industry professionals.

Chapters: The Society had 40 chapters throughout the United States and Canada that provided local programming and networking for members.

HIMSS Foundation: The HIMSS Foundation, a separate non-for-profit corporation, remained the philanthropic arm of HIMSS, dedicated to inspiring charitable giving, research, education and to enhancing the management and application of health IT. The Foundation offered six scholarships to students at the undergraduate, graduate and doctoral level through Foundation and corporate support.

Society for Health Systems: HIMSS and the Society for Health Systems (SHS) affiliated to offer dual membership in and membership benefits of the two organizations. SHS members were healthcare management engineers and performance improvement professionals.

Nursing Informatics Member Community: The Midwest Alliance for Nursing Informatics (MANI) unified with HIMSS this year. HIMSS and MANI decided to unify since the two organizations share compatible goals: promoting education and networking to nurse informaticists and focusing on leadership in technology to improve the overall delivery of healthcare. MANI, founded in October 1991, is a not-for-profit organization that serves as a resource for nursing informatics professionals throughout the Midwestern United States.

New Special Interest Groups (SIGS): HIMSS Special Interest Groups offered members an opportunity to participate in subject matter areas of interest. To better represent key initiatives and issues in healthcare, the Managed Care SIG changed its name to the Payer SIG and the Management Engineering and Re-Engineering & Performance Improvement SIG merged. In addition, the Society introduced a new SIG, Healthcare Security.

Education
HIMSS Online Education: HIMSS continued to offer a wide variety of topics in its online education and audio conference programs. Online and distance education collaboration programs offered opportunities for HIMSS members throughout the world to earn health IT certificates. The University of Connecticut and HIMSS continued to offer their co-developed certificate program in health IT. The Oregon Health Sciences University extended its graduate level certificate program in healthcare information technology at a discount to HIMSS members who wished to gain formal education in health informatics.

Audio Conferences: Audio conferences, typically 60 to 90 minutes including time for questions to the presenter, offered continuing education credits for certification credentials. In 2004, the Society focused on the electronic health record for a three-session series. Other topics throughout the year included nursing informatics, return-on-investment, outsourcing, identity management and radio-frequency identification, HIPAA security, evidence-based medicine, clinical decision support, wireless nursing communication and incentives for clinical adoption of the EHR.

Health IT vendors/HIMSS members and providers were part of a new education offering from HIMSS in an audio conference series that illustrated real-world IT solutions in the delivery of healthcare.

Publications

As a leader in providing the industry with content focused on the healthcare information technology, HIMSS published the following books in 2004:

Career Success in Healthcare Information Technology, by Betsy S. Hersher and Linda B. Hodges;

The Physician-Computer Conundrum, by William F. Bria, M.D, and Richard Rydell; and

Clinical Management Systems: A Guide for Systems Deployment, by Jeffrey Blander and Bryan P. Bergeron, MD.

Center for Information Technology Leadership (CITL): HIMSS continued its affiliation with the Center for Information Technology Leadership as publisher of CITL's research report on standardized Healthcare Information Exchange and Interoperability (HIEI). Preliminary
results of the CITL research, which was presented at HIMSS04, found that standardized health information exchange between health IT systems would deliver national savings of $77.8 billion annually after full implementation.

HIMSS Insider: The *HIMSS Insider* debuted in November, replacing *HIMSS News*, as the monthly newsletter for HIMSS members. The newsletter appeared within another new publication, *Healthcare IT News*, which was published by MedTech Publishing in partnership with HIMSS. This trade magazine was a monthly tabloid-sized newspaper for the health IT field with a total circulation of almost 44,000.

Peer-reviewed Journal: *The Journal of Healthcare Information Management* continued to provide members and other subscribers with a peer-reviewed publication covering key industry issues with the presentation of current research as well as other articles. Each quarterly issue had a different theme: computerized physician order entry (winter), HIPAA (spring), clinical informatics (summer), and new technology trends (fall).

Electronic Newsletters: HIMSS published a number of electronic newsletters for its members and niche communities. *HIMSS E-News* published weekly for HIMSS individual and corporate members; the newsletter contained up-to-the-minute news of HIMSS activities and services and includes industry news briefs. Two monthly e-newsletters served HIMSS' Microsoft and Sun Microsystems user group communities: the *MS HUG Connection* and *SunSHINE. Chapter Leader E-News* was published monthly for HIMSS chapter leaders, and *Exhibitor E-News* was published monthly for exhibitors to the Annual HIMSS Conference & Exhibition.

HIMSS Analytics:
Formation of Market Research Subsidiary: Recognizing a need in the industry for quality and expanded market research services, the Society formed HIMSS Analytics in February

2004, as a wholly owned, for-profit subsidiary, supporting the HIMSS' mission of advancing the delivery
of healthcare through the use of information technology.

The Society considered several options in developing the subsidiary, including exploring relationships with existing market research organizations and building a new enterprise. With approval from the HIMSS board of directors, HIMSS Analytics acquired the DORENFEST IHDS+ DATABASE™ and related business assets from Sheldon I. Dorenfest & Associates, Ltd., a Chicago-based provider of health information technology consulting and market data. The acquisition was final in July, 2004.

The subsidiary, was headquartered in Chicago, brought together a strategic and experienced senior leadership team with expertise in health IT, market research and consulting. Products and services offered by HIMSS Analytics support improved decision- making for healthcare organizations, health IT companies, and consulting firms by delivering high quality data, information and analytical expertise.

The company collected and analyzed healthcare organization data relating to IT processes and environments, products, IS department composition and costs, IS department management metrics, healthcare delivery trends and purchasing related decisions. HIMSS Analytics also provides custom market research services to support strategic decision making in areas such as product planning, business and marketing strategy.

HIMSS Research Initiatives: The HIMSS research efforts, funded by the HIMSS Foundation, are now housed in HIMSS Analytics, positioning the subsidiary to be the single source for authoritative research in the health IT and management systems marketplaces.

HIMSS Leadership Survey: The Annual HIMSS Leadership Survey, sponsored by Superior Consultant Company, then in its 15th year, provided insight on the priorities, barriers and future of health IT from a variety of perspectives, including CIOs, CEOs and physician and nursing executives. Other research topics addressed during 2004, in collaboration with industry leaders, included nursing informatics, national health information infrastructure, networking technology, national preparedness and response, ambulatory technology, and HIPAA compliance.

2005 – Record-Breaking Attendance at Annual Conference
July 2004 – June 2005

Annual HIMSS Conference & Exhibition: The 2005 Annual HIMSS Conference & Exhibition was held February 13-17, 2005, in Dallas, with 22,887 attendees, another record-breaking attendance with a 10 percent increase in registration from the 2004 conference.

Exhibitors: A total of 701 companies participated in the year's exhibition, including 193 first- time exhibitors, using a total of 280,400 net square feet. An additional 29,300 net square feet included these demonstration areas: Product Pavilions, University Row, Interoperability Showcases, and Department of Defense.

Product Pavilion: The Product Pavilion demonstration areas featured 57 exhibitors showcasing products or services in the areas of Managing the Business of Healthcare, Patient Safety, Security, and Wireless & Mobility. In addition, 73 companies provided case study-based
learning opportunities for attendees seeking to gain in-depth knowledge about various products(s) and the solutions they provided to health IT challenges.

Keynote speakers included:
- John Chambers, president & CEO, Cisco Systems;
- Howard Putnam, former president/CEO, Southwest Airlines;
- Barbara Bush, Former First Lady, U.S.;
- David Brailer, MD, PhD, National Health Information Technology Coordinator; and
- Scott Adams, syndicated cartoonist & author, creator of Dilbert.

Professional Education: This year's educational sessions included a Physicians' IT Symposium, a Nursing Informatics Symposium with featured topics of Clinical Informatics; E- Enabled Applications; Electronic Health Record; Emerging Technologies; Health Data, Interoperability and Standards; IT Infrastructure and Architecture; IT Management; Leadership and Communication; Patient Safety; Legal, Regulatory and Risk Management; and Process Improvement.

Nursing Informatics Symposium: The 2005 symposium was attended by more than 400 nurses and was cosponsored by the Alliance for Nursing Informatics.

Physicians Symposium: The 2005 Symposium had almost 300 physicians and other industry professionals choosing from two educational tracks—one designed for the physician in the hospital or health system setting, the other for the physician office practice and ambulatory setting. The 2005 Physicians' IT Symposium program was delivered by 13 experts in their respective fields and was presented in collaboration with the Association of Medical Directors of Information Systems, the American Medical Informatics Association and the Medical Group Management Association.

Interoperability Showcases: Electronically tracking a personal health record became a reality on the exhibit floor at HIMSS 2005 when more than 10 percent, or 2,300, attendees visited the Interoperability Showcases from February 14-17. They gained a glimpse of how caregivers can manage and share patient records across interoperable health care networks. Dr. David Brailer, MD, PhD, National Coordinator for Health Information Technology, attended HIMSS 2005 and received a private tour of the showcase.

Some 49 organizations participated in the Interoperability Showcases, including vendors, standards development organizations, EHR initiatives, academic health institutions, government agencies including the Department of Veterans Affairs Health System and others. The participating vendors assembled a virtual Regional Health Information Organization (RHIO) in which patient care records were efficiently created, stored, managed and accessed

across a number of realistic care settings as attendees registered nearly 6,000 sample medical records in the RHIO.

Users Groups: The HIMSS Users Group Alliance Program was developed to create a variety of independent communities within HIMSS to provide environments for members to exchange technology-related ideas, challenges, and solutions. The 2005 SunSHINE Summit "Healthcare: Thinking Outside the Box," was held on February 14 in conjunction with the annual conference. The MS-HUG Tech Forum 2005 attracted more than 300 attendees. With topics such as
emerging technologies, interoperability, mobility and wireless, patient safety, data management and more, the Tech Forum featured presentations by the leading minds at Microsoft and industry experts

Education

HIMSS Summit: The 2005 HIMSS Summit: Achieving National Healthcare Transformation was held June 6-7 in New York City with 853 people attending. Michael O. Leavitt, HHS Secretary, was the keynote speaker and announced the formation of the American Health Information Community (AHIC) at this conference. He held a press conference with Dr. David Brailer, MD, PhD, the ONC coordinator, who was also a keynote presenter at the Summit. As a new federal advisory body, the AHIC was developed to make recommendations to the HHS Secretary on how to accelerate the development and adoption of health information technology.

At the HIMSS Summit, Dr. David Brailer announced the release of four request for proposals (RFPs) to achieve interoperability in healthcare. The RFPs focused on four specific areas in a contracting process that would support an interoperable National Health Information Network (NHIN).

Webinars and Audio Conferences: HIMSS education continued to provide ongoing educational efforts with webinars and audio conferences on key topic areas, such as clinical decision support, patient safety, ambulatory care, auto identification, nursing informatics and process improvement.

Member Services

Membership: HIMSS individual membership grew by 7.6% in 2005 with membership at 17,500.

Corporate Members: HIMSS had more than 250 corporate members in 2005.

MS-HUG: Membership in MS-HUG grew by 20% and SunSHINE by 141%.

Chapters: HIMSS also welcomed two new chapters: Austin, Texas and Red Rock, which includes Nevada and New Mexico.

CEO IT Achievement Award: The recipients of the 2005 award were:
- Joel Allison, President/CEO, Baylor Health Care System/Dallas;
- George Halvorson/Chairman/CEO/Kaiser Foundation/Health Plan and

Hospitals/Oakland, Calif.; and
- Mark Neaman/President/CEO/Northwestern Healthcare/Evanston, Ill.

Informatics

HIMSS Nursing Informatics Community: This new community welcomed 1,141 nurses as HIMSS members in 2005; this is a 66% increase from 2004.

HIMSS Nursing Informatics Task Force: The task force had 85 members in 2005. Workgroups were established for:
- Education;
- Web Site Tools & Resources;
- Nursing Informatics Awareness; and
- Nursing Informatics Task Force Survey.

Health Information Technology Standards Panel: HIMSS, the Advanced Technology Institute (ATI) and Booz Allen Hamilton were selected to serve as strategic partners with the American National Standards Institute (ANSI) in a new initiative to develop standards. A contract award was announced in October by HHS to support this new collaborative effort to harmonize healthcare information technology standards. Under the sponsorship of the ANSI, coordinator of the U.S. voluntary standardization system, the Healthcare Information Technology Standards Panel (HITSP) was formed to bring together a wide range of stakeholders to identify, select, and harmonize standards for communicating data throughout the healthcare spectrum.

Integrating the Healthcare Enterprise/IHE: As an industry-wide framework, IHE then had more than 100 vendors worldwide participating. IHE was also involved in the work of HITSP and was part of the standards harmonization effort awarded to ANSI with HIMSS, ATI and Booz Allen Hamilton.

International Organization for Standards Development (ISO)/-ISO Technical Committee 215: As the Secretariat for ISO TC-215, HIMSS participated in a Global HIT Standards Summit in Hamamatsu City, Japan, on September 12. This event was co-sponsored by HIMSS and ISO TC 215 with participants from 12 countries attending: Japan, Korea, Taiwan, Belgium, France, Germany, Netherlands, Sweden and the United Kingdom.

HIMSS Certification: The number of individuals with the CPHIMS - Certified Professional in Healthcare Information and Management Systems – certification grew in 2005 with 145 individuals sitting for the exam. A total of 631 health IT professionals then carried this credential. Individuals with the Certification in Healthcare Security or CHS credential totaled 101 with 25 people tested in 2005.

HLA Competency Directory: The Healthcare Leadership Alliance is comprised of the following organizations:
- American College of Healthcare Executives;
- American College of Physician Executives;

- American Organization of Nurse Executives;
- Healthcare Financial Management Association;
- Healthcare Information and Management Systems Society; and
- Medical Group Management Association and its certifying body, the American College of Medical Practice Executives.

EHR Initiatives

Hurricane Katrina Outreach: When Hurricane Katrina hit the Gulf Region in August 2005, HIMSS established an outreach to members in the area. HIMSS members donated more than $10,000 to charities for Katrina survivors and HIMSS matched this donation with $10,314.

HIMSS Katrina Phoenix Project: Following the hurricane, HIMSS also established a program to help rebuild medical practices in the area with EMR. The program identified practices in need and worked with other organizations to initiate this effort. They are:
- Health Level Seven;
- American Health Quality Association (AHQA);
- eHealth Initiative;
- Louisiana Health Care Review (LA QIO);
- Alabama Quality Assurance Foundation(AL QIO);
- Information and Quality Healthcare (MS – QIO);
- American College of Physicians;
- American Medical Association (AMA);
- Evans Medical Group;
- Pediatrics @ The Basin;
- North Fulton Family Medicine;
- University of Rochester Medical Center;
- Center for Health Information and Decision Systems University of Maryland; and
- HIMSS Electronic Health Record Vendors Association.

HIMSS Electronic Health Record Vendors Association (EHRVA): HIMSS formed the EHRVA to provide a forum for the EHR vendor community relative to standards development, the EHR certification process, interoperability, performance and quality measures, and other EHR issues that may become the subject of increasing government, insurance and physician association initiatives and requests.

As an active participant in the interoperability roadmap, the EHRVA was named to be part of the HITSP or Standards Harmonization panel. In addition, the group:
- Responded to the Certification Commission for Health Information Technology (CCHIT);
- Developed the EHRVA Interoperability Roadmap;

- Participated in the HIMSS Katrina Phoenix Project; and
- Responded to the Centers for Medicare and Medicaid on Personal Health Records.

Nicholas E. Davies Awards of Excellence: The 2005 recipients of the Davies Award were:

- **Organizational Davies Award:** Citizens Memorial Healthcare/Bolivar, Mo.

- **Ambulatory Care Davies Award**: Wayne Obstetrics and Gynecology, Jesup, Georgia; Southeast Texas Medical Associates, Beaumont, Texas; and Sports Medicine & Orthopedic Specialists, Birmingham, Ala.

Ambulatory Care Initiatives: HIMSS expanded its outreach to ambulatory care sites and physicians practicing in their own medical practice or clinic. Initiatives included:
- Physicians Adopting Computer Technology - PACT Conferences - held in Phoenix, New
    - York and
    - Chicago;
- American Health Quality Association (AHQA) collaboration; and
- Massachusetts eHealth Collaborative (MAeHC) educational conference.

Government Relations
ASAE Honor Roll Award: The year 2005 was busy for HIMSS Advocacy and Government Relations. In December 2005, the HIMSS Federal Legislation Tracker received the 2006 American Society of Association Executives (ASAE) Honor Roll award.

Advocacy Day: At the 4th Annual HIMSS Advocacy Day on Capitol Hill, members from 30 states representing almost half of all HIMSS chapters made more than 100 visits on Capitol Hill. For this event, 14 organizations signed on as co-sponsors:
- American Health Information Management Association (AHIMA);
- Center for Information Technology Leadership (CITL);
- Certification Commission on Health Information Technology (CCHIT);
- College of Healthcare Information Management Executives (CHIME);
- eHealth Initiative (eHI);
- EHR Vendor Association;
- Information Technology Industry Council (ITIC);
- Internet2;
- Medical Records Institute (MRI);
- Mobile Computing Alliance (MoHCA);
- National Committee for Quality Health Care (NCQHC);
- National Quality Forum (NQF);
- Patient Safety Institute (PSI);
- U.S. Medicine Institute (USMI);

At Advocacy Day, all 34 members of the 21st Century Health Care Caucus were honored.

2005 HIMSS Advocacy Awards: Congressman Patrick Kennedy (D-RI) and former House Speaker Newt Gingrich) received these awards.

Public Policy Forum: The October Public Policy Forum was held in Washington, D.C, with the following milestones achieved for this event:
- First time a U.S. Senator has addressed HIMSS;
- Overcoming barriers to interoperability;
- Advocacy & Public Policy and Integration & Interoperability Steering Committees; and
- More than 125 attendees- record audience.

Legislation: In 2005, the U.S. Senate passed S. 1418, the Wired for Healthcare Quality Act. Members of the New England, Iowa and Michigan chapters of HIMSS worked to help this legislation pass the Senate. HIMSS co-sponsored six pieces of key health IT legislation during 2005. In addition, the Society worked for full funding for Office of the National Coordinator for Health Information Technology.

Briefings: HIMSS conducted briefings for the Senate Centrist Coalition and congressional caucuses with members providing testimony before key committees. HIMSS was also a member of the National Patient Advocate Foundation, AHIC Outreach Working Group.

Health IT Consortium: This group of which HIMSS is a member developed and published an advertisement in *RollCall* newspaper to promote the adoption of health.

HIMSS Legislative Principles: This document was developed to emphasize what "principles" should appear in legislation that HIMSS supports.

RHIO Federation: HIMSS launched the RHIO Federation in October with 38 RHIO members confirmed in 2005. A task force and work groups were formed to address topics that include definitions, position statements, special projects and RHIO Guidebook. There was also a 38- person Chapter RHIO Federation Roundtable.

HIT State Dashboard: The HIT Dashboard launched. This web tool provided a color-coded, easy- to-read visual interface that tracks over 500 state, federal, and private health IT initiatives. Projects tracked in the HIT Dashboard were:
- AHRQ HIT grants;
- DOQ-IT programs;
- Military Health System;
- RHIOs;
- Health Information Exchanges;
- Bridges to Excellence;
- Private HIT projects;
- HIMSS State Legislation Tracker (added in 2006);
- Information on HIMSS Chapters (added in 2006);
And
- Information on Davies Award Winners (added in 2006).

Oversight of data collection for the HIT Dashboard was secured by collaboration between HIMSS and the University of Maryland, Robert H. Smith School of Business, Center for Health Information and Decision Systems (CHIDS). The information provided by the HIT Dashboard was updated every two weeks.

Publications/Communications

HIMSS publications introduced five new books in 2005:

Improving Outcomes with Clinical Decision Support, 2nd edition (written by the Wireless Task Force

Medical Practice Transformation with Information Technology, by Charles M. Kilo MD, MPH, FACP and Mark K. Leavitt MD, PhD, FHIMSS

Implementing the Electronic Health Record: Case Studies and Strategies for Success, by Joseph Miller FHIMSS

Annual Report of the US Hospital IT Market (with HIMSS Analytics)

And *Performance Management in Healthcare: From Key Performance Indicators to Balanced Scorecard*, by Bryan P Bergeron MD

Web Services

The web team introduced a redesign of the HIMSS website (www.himss.org) and continued to develop websites for other HIMSS initiatives.

2006 – The First National Health IT Week Is Held
July 2005 – June 2006

The first National Health IT Week was held in collaboration with 45 partnering organizations; the event was jointly sponsored by the Massachusetts Medical Society. Two of the main events during the week—the 2006 HIMSS Summit and Advocacy Day—were both well-attended with over 466 and 200 participants, respectively.

Annual HIMSS Conference & Exhibition – North America: The 2006 Annual HIMSS Conference & Exhibition, held Feb. 12-16 in San Diego, Calif., attracted another record- breaking attendance of 24,870 individuals, a 5% increase over 2005, with 859 exhibitors.

Keynote speakers were:
- David Brailer, MD, PhD, National Health Information Technology Coordinator;
- Craig R. Barrett, chair, Intel Corporation;
- Governor Mark R. Warner, Virginia; and
- Dana Carvey, actor and comedian.

Exhibition: A total of 859 companies participated in the year's exhibition, including 320 first-time exhibitors, using a total of 321,300 net square feet. Special areas on the show floor included Product Pavilions, University Row, Interoperability Showcases and Department of Defense.

Professional Education: Educational sessions were presented by some of the industry's most well-respected thought leaders including symposia for physicians, CIO's, nurses, pharmacists, clinical engineers, RHIOs, and Pay-for-Performance initiatives and two users group meetings. Featured topics included Clinical Informatics; E-Enabled Applications; Electronic Health Record (EHR); Emerging Technologies; Health Data, Interoperability and Standards; IT Infrastructure and Architecture; IT Management; Leadership and Communication; Patient Safety, Legal, Regulatory and Risk Management; Process Improvement; Project Management; and Public Health.

CIO Forum: The 2006 CIO Forum marked the first truly collaborative planning effort between CHIME and HIMSS with 455 attendees. This Forum was designed for the nation's CIOs to examine the latest thinking and explore new trends in the industry. Speakers included Rep. Patrick J. Kennedy, (D-RI); Francois de Brantes, Program Leader, GE Health Care Initiatives; Leading Technology: Insights from CEO IT Achievement Award Winners; John P. Glaser, PhD, Senior VP & CIO, Partners Healthcare; and Joel Allison, FACHE, President and CEO, Baylor Health Care System, G. Richard Hastings, FACHE, President and CEO, Saint Luke's Health System; Mark R. Neaman, President and CEO, Evanston Northwestern Healthcare; David J. Brailer, MD, PhD., National Coordinator for Health Information Technology; and Bruce Tulgan, Founder, RainmakerThinking, Inc.

At HIMSS06, other education sessions offered included the:

Clinical Engineering and IT Leadership Forum developed in partnership with the American College of Clinical Engineering (ACCE).

Nursing Informatics Symposium was co-sponsored with the Alliance for Nursing Informatics. More than 350 nurses attended. New that year were two pre-symposium sessions for nurses who are new to informatics: Standardizing Terminology: An Introduction; and Basic Concepts in Understanding Databases.

Pay for Performance Symposium was designed to foster the collaboration between payers and providers by addressing the complex issues affecting both communities today and providing a focus for a common view through sharing information and data.

Pharmacy Informatics Symposium provided a professional forum for pharmacists involved in informatics and other professionals actively engaged in the process of medication management for their organization. It was developed in collaboration with the American Society of Health System Pharmacists (ASHP), National Council of State Pharmacy Association Executives (NCSPAE), and the Institute for Safe Medicine Practice (ISMP).

Physicians' IT Symposium presented a powerful program designed by physicians for physicians. The 2006 Symposium had over 300 physicians and other industry professionals choosing from two educational tracks: one designed for the physician in the enterprise system setting, the other for the physicians in the office practice and ambulatory setting. The Physicians' IT Symposium was presented in collaboration with the Association of Medical

Directors of Information Systems, the American Academy of Pediatrics, and the American Medical Informatics Association.

RHIO Symposium appealed to all audiences playing a role in EHR transformation. It addressed what is being offered to support the growth of RHIOs and outlined the successes and steps to achieve them during. The HIMSS RHIO Federation Work Group was introduced at the symposium; at that time the Work Group was developing a business plan to support RHIOs across the U.S.

2006 SunSHINE Summit: This one-day conference was presented by SunSHINE, Sun Microsystems and HIMSS. The keynote speaker was Dr. Ed Hammond, a leading authority on healthcare standards and EHRs and professor-emeritus at Duke University. Dr. Hammond addressed the pressures and the progress of national EHR adoption and prescribed the specific steps for success.

MS-HUG Tech Forum 2006: The Microsoft Healthcare Users Group (MS-HUG) Tech Forum featured presentations by Microsoft and industry experts with two different tracks; an Interoperability, Collaboration & RHIOs Track and an Administration and Process Improvement Track.

Advocacy Activities at HIMSS06
4th Annual Government Relations and Public Policy Breakfast, which included speeches by Nancy Davenport Ennis, Commissioner on the American Health Information Community and CEO of the National Patient Advocate Foundation; Ms. Robin Raiford, and Mr. Steve Robertson, CIO of Hawaii Pacific Health.

1st Annual Project Health IT Champions (Project HITCh) with the National Conference of State Legislatures, a three-day education program to improve state legislators' understanding of healthcare IT and management systems tools. Five state legislators and staff from Colorado, Florida, Maryland, Michigan, and New Hampshire represented the inaugural Project's Champions. As part of Project HITCh, HIMSS hosted a tour of the U.S. Navy Ship Mercy in San Diego and the University of California Medical Center in La Jolla for congressional staff and state legislators to see the latest advances in public and private health information technology

Global Programs
Global Business Trade Exhibits & Education: The Global Business Trade Pavilion featured trade ministries from the United Kingdom, China, Australia and Singapore. To connect international trade representatives with major U.S. healthcare IT vendors and providers, the Global Business Trade Pavilion featured country-specific trade and investment information.

International Group Package: This was the first year HIMSS offered a discount for groups of 30 or more international delegates that were planning on attending the annual conference. Participation included more than 10 groups from Germany, Japan, Sweden, France, China, Singapore, Australia and The Netherlands. Included in the group package were special networking events, private U.S. hospital tours specializing in state-of the art health IT, a

private tour of the Interoperability showcase during non-exhibit hours, opportunities to meet and greet with senior level executives of U.S. marketed companies, and a special discount on registration.

Hospital Tours: Approximately 40 German and Japanese delegates toured Sharp Mary Birch Hospital for Women; 30 delegates toured Sharp Grossmont Hospital, one of the most technologically advanced emergency and intensive care facilities in the nation.

Exhibition Floor

Product Pavilions–The Product Pavilion demonstration areas featured 44 exhibitors showcasing products or services in the areas of EHRs, Managing the Business of Healthcare, and Wireless & Mobility. In addition, 42 companies provided case study-based learning opportunities for attendees seeking to gain in-depth knowledge about various products(s) and the solutions they provide to health IT challenges.

Interoperability Showcase: The Interoperability Showcase demonstrated health information exchange across a HIMSS RHIO using the IHE framework. Dr. David Brailer visited the HIMSS Interoperability Showcase and offered his perspective on the collaborative effort behind it.

Other facts about the Interoperability Showcase that year:
- More than 3,000 attendees visited the 2006 HIMSS Interoperability (RHIO) Showcase;
- 37 vendors demonstrated 48 health IT systems;
- 12 vendors participated in a distributed demonstration of health information exchange; between their own exhibits and the Interoperability Showcase ;
- 700 attendees created and tracked their own EHR;
- 63 educational sessions were presented;
- 5 international delegations visited the showcase;
- Three HIMSS 2006 keynote speakers toured the HIMSS Interoperability Showcase; and
- 16 clinical scenarios demonstrated interoperability across products, systems and enterprises.

Certification: On August 14, 2006, the CPHIMS program met a milestone of having the one thousandth person apply for the exam. Mobile testing was launched in 2006 as well.

During 2006, 196 individuals applied for the exam; 186 tested with 138 (74.2 percent) passing and 48 (25.8 percent) failing. Since the inception of the program in January 2002, 1,044 individuals had applied for the exam, and 970 had actually sat for the test.

By 2006, the CPHIMS program had a total of 792 individuals (81.6 percent) who had passed the exam**;** 178 persons (18.4 percent) who had failed; and 609 health IT professionals who were active CPHIMS credential holders.

Informatics

Tiger Team Summit: In April 2004, nursing representation was missing from the national conference on Cornerstones for the Electronic Health Record convened by the Office of the

National Coordinator of health IT. During fall 2004, the TIGER Team formed to ensure nursing input to the national agenda. On November 1, 2006, 120 nursing and informatics leaders collaborated at a summit to articulate a vision for the future of nursing that enables nurses to use informatics in practice and education to provide safe, quality care and to define steps over the next three years toward their 10-year vision. As co-sponsor of the Alliance for Nursing Informatics, along with AMIA, HIMSS was a leader of this initiative.

HITSP Year One Effort/Publication of Interoperability Specifications: HITSP recommended to the American Health Information Community three interoperability specifications in the areas of electronic health records, biosurveillance, and consumer empowerment. In October, AHIC acknowledged the excellent work of the HITSP members and further recommended the interoperability specifications to HHS Secretary Michael Leavitt.

Member Services
Individual Membership: With 47 HIMSS chapters throughout the U.S. and in Canada, HIMSS reached more than 10,000 members and prospects with local education and networking opportunities.

New chapters: During the past year the following chapters were developed: West Virginia, New Jersey, New Mexico, and Mississippi.

Special Interest Groups: Three new SIGs were formed: Behavioral Health Special Interest Group; Clinical Engineering – Information Technology Convergence (CE & IT Convergence SIG)**;** and Greater China Region Special Interest Group.

MS-HUG: The MS-HUG Fall Tech Forum, held August 23-24 at Microsoft Corporate Campus in Redmond, Wash., experienced a record registration. At that time MS-HUG had close to 4,000 members.

Fellows: The fellows began work on the first HIMSS History Wall - an exhibit of artifacts and timeline, which would be displayed adjacent to HIMSS Central at the 2007 Annual HIMSS Conference & Exhibition.

Health Information Systems
Ambulatory Information Systems and Enterprise Information Systems:

Ambulatory Community Health Clinics: The Ambulatory IS Steering Committee launched a new community of Ambulatory Community Health Clinics to address this growing sector of the healthcare community.

CCHIT Response: The Ambulatory IS Steering Committee and the Enterprise Information Systems Steering Committee both responded to various CCHIT public comment periods, offering input and guidance on the certification of EHR products.

HITSP Response: The Enterprise Information Systems Steering Committee responded to several of the comment periods offered by the Health Information Technology Standards Panel to provide input shaping the delivery of standards for inpatient EHR health IT.

Stark Exception and Anti-Kickback Safe Harbor Educational Materials and Programming: Both the Ambulatory IS and the Enterprise IS Steering Committees developed and implemented webinars and educational materials on the Anti-Kickback Safe Harbor topic with numerous printed educational materials developed and posted on HIMSS website.

Personal Health Records: With more clinician and consumer interest in personal health records, HIMSS introduced the PHR Steering Committee, PHR Vendor Group Task Force, and PHR Consumer Organizational Outreach Task Force to study and educate the respective audiences on PHRs.

Davies Award of Excellence Program:

Davies logo: A Davies logo, designed in-house with a line drawing of Dr. Nicholas E. Davis, was introduced and would now be used on all Davies Award materials and the website.

Davies white papers: A series of Davies white papers were developed and posted on the HIMSS website. This set of informational materials provided background and ROI data on the program.

Davies Award Recipients:

2006 Davies Organizational Award Recipients were the Center for Behavioral Health/Bloomington, Ind.; and Generations+/Northern Manhattan Health Network/New York, NY.

2006 Davies Ambulatory Care Award Recipients were Alpenglow Medical, LLC/Fort Collins., Colo.; Cardiology of Tulsa (COT)/Tulsa, Okla.; and Piedmont Physicians Group (PPG 775)/Atlanta, Ga.

2006 Davies Public Health Award Recipients were Texas Department of State Health Services (DSHS) Behavioral Health Integrated Provider System (BHIPS), a Web-based Electronic Health Record (EHR)/Austin, Texas; and New York State Environmental Public Health Tracking Network (NYS EPHTN) Data Exchange System/Albany, NY.

The Digital Office: This e-newsletter marked it first anniversary in January and ranked as the HIMSS publication (newsletter) with the highest sign-on rate of subscribers.

The HIT First Responder Workgroup: Launched under the guidance of the Ambulatory IS Steering Committee, the workgroup addressed emergency preparation for healthcare facilities.

Business Information Systems

It was a year of *collaboration* with the HIMSS Business Information Systems initiatives.

CAQH-CORE: HIMSS established a relationship with CAQH-CORE to co-sponsor educational sessions with them. As background, the Council for Affordable Quality Healthcare (CAQH) brought together nearly 70 industry stakeholders—health plans, providers, vendors, government agencies, associations, regional entities and standard-setting organizations—to create and, ultimately, disseminate and maintain operating rules to facilitate real-time, comprehensive, secure transfer of patient eligibility and benefits information. The organization launched the Committee on Operating Rules for Information Exchange (CORE) in response to private sector recognition of the need for an interoperable solution for communicating member data to physician practices.

Three different **CAQH-CORE** educational sessions were offered during the year, each in conjunction with one of the following: HIMSS EIS Steering Committee, EIS Enterprise Integration Task Force, and the Ambulatory Steering Committee.

Connecting Communities: HIMSS and the eHealth Initiative collaborated to develop this initiative as a vehicle to share the strengths of both organizations in the delivery of products and services for RHIOs and HIEs. In 2006, two Connecting Communities regional programs were held (with two in 2007), one in Salt Lake City and one in Chicago

Regional health information organizations (RHIOs) and health information exchange (HIEs) initiatives throughout the U.S. facilitated healthcare information across organizations to deliver clinical results and information to physicians and other healthcare providers at the point of care. The Connecting Community Forums were designed to provide key insights and practical advice to these state, regional and community-based initiatives. The forums brought together industry leaders to share their experience and knowledge regarding RHIO and HIE development.

Webinars: Throughout the year, programming on RHIOs, via a webinar and with "Connecting for Health: A Common Framework for Initiative Private and Secure Health Information Sharing," provided more information on the topic of RHIOs and their value to the implementation of the EMR.

Internet 2: HIMSS and Internet2 launched a collaborative relationship in 2006. Internet2 had focused on academic organizations and thus, brought that strength to HIMSS. Two work groups were formed with combined HIMSS membership and Internet2 members. The work groups were Identify Management and Privacy and Security.

AFEHCT Advisory Council: HIMSS launched the AFEHCT Advisory Council to expand core content areas to business information systems with an onsite meeting of the AFEHCT board as the HIMSS AFEHCT Advisory Council held during the year. This group expands HIMSS' outreach to members by providing more education and content for those in the business information systems area. AFEHCT is the Association for Electronic Health Care Transactions.

Health Information Exchange Steering Committee: To help lead HIMSS' activities in RHIOs and HIEs, this steering committee was formed. This group also supports the collaboration between HIMSS and eHI.

Publications

The following books were published by HIMSS in 2006:

Nursing and Informatics for the 21st Century: An International Look at Practice, Trends and the Future, by Charlotte A. Weaver RN, PhD, Editor, Connie W. Delaney PhD, RN, FAAN, Editor, Mr. Patrick Weber RN, MA, Editor, Ms. Robyn Carr, RGON, Editor;

HIMSS Dictionary of Healthcare IT Terms, Acronyms and Organizations (both print and online versions), compiled by the HIMSS Standards Task Force andDictionary Editing Work Group;

Guide to the Electronic Medical Practice: Strategies to Succeed, Pitfalls to Avoid, edited by Steven L. Arnold MBA, MD, MS;

Performance Management in Healthcare: From Key Performance Indicators to Balanced Scorecard, by Bryan P Bergeron, MD; and

2006 Annual Report of the U.S. Hospital IT Market, HIMSS and HIMSS Analytics.

Public Policy

Advocacy Day 2006: In 2006, more than 400 advocates from 48 states turned out for HIMSS 5th Annual Advocacy Day on June 6 in Washington, D.C.'s Ronald Reagan Building and International Trade Center. Armed with professional legislative strategy training from author and grassroots consultant Christopher Kush, the advocates completed morning education sessions and trekked to Capitol Hill in the afternoon to complete 246 visits with their members of Congress. Keynote speaker, U.S. Senator Sam Brownback (R-KS), announced his plans to introduce the Independent Health Record Bank Act of 2006, at HIMSS Advocacy Day. The bill would establish independent health record banks to store electronic medical records.

Advocacy Awards: Following the Capitol Hill meetings, June Lowe, vice chair of HIMSS Board of Directors, presented the 2006 Advocacy Awards to Maryland Delegate Shane Pendergrass and Dr. Carolyn Clancy, director of the Agency for Healthcare Research and Quality during a Networking Reception in the Rayburn House Office Building Foyer.

HIMSS First State Government Advocacy Day: In conjunction with HIMSS Virginia and National Capitol Area Chapters, HIMSS' first State Government Advocacy Day was held on January 18 in Richmond, Va. Speakers included State Delegate David Poisson and Virginia Secretary of Technology Aneesh Chopra. Additional state advocacy Days were held in the states of New York and Oregon.

Public Policy Forum: A record number of industry and government leaders attended the 4th Annual HIMSS Public Policy Forum at the Ronald Reagan International Trade Center in Washington, D.C., on September 28th. The program opened with Rep. Adam Smith (D-WA), Co-Chair of the New Democrat Coalition of the U.S House of Representatives, providing a congressional overview of health information technology legislation and reiterating his support for its passage in the 109th Congress. Keynote speakers included The Honorable William Winkenwerder, Jr., MD, MBA, Assistant Secretary of Defense for Health Affairs;

The Honorable Karen Evans, Administrator for eGov, Office of Management and Budget; and Paul Sheils, Head of eHealth & Information Business, Aetna, Inc.

HIMSS-NCSL Partnership: HIMSS was a founding member of the National Conference of State Legislators (NCSL) Health Information Technology Champions (HITCh) Partnership, a project of the Foundation for State Legislatures (NCSL Foundation), which was launched at NCSL national conference in Nashville on August 17.
HIMSS and NCSL had been working together informally for over a year to ensure that state legislators were aware of how HIT can help address some of the prohibitive costs and quality issues that exists in today's healthcare programs. HIT legislation was pending in almost every state so the partnership with NCSL was a natural progression in HIMSS' efforts to strengthen education and outreach to state, regional, and local areas.

Over an 18-month period, the NCSL Foundation Project HITCh Partnership would sponsor working and information sessions for state legislators and their staff, share articles and policy papers on HIT, and develop a HITCh web site. A core group of legislators and staff would meet at regular intervals to guide the project. Silver and Gold sponsors of the Foundation for State Legislatures were invited to participate in the Foundation partnership program.

HIMSS Chapter Advocacy Certification Program: Over 35 HIMSS chapters were working together to advance federal, state, and local HIT-related legislation through the Chapter Advocacy Certification Program. Launched in July, 2006, the program identifies, trains, and mobilizes Chapter Advocacy Liaison Representatives (CALR) at participating chapters to help coordinate effective, sophisticated grassroots advocacy across the country. CALRs and their Chapters were working their way up a three-step certification program. In 2006, 11 HIMSS chapters and 14 Chapter Advocate Liaison Representatives had achieved Advocate Level Certification. Shawna Schuler, Minnesota Chapter Representative, earned Ambassador Level Certification.

HIMSS First Elections Webinar: More than 100 HIMSS members participated in the organization's first webinar on "The November Elections and Its Impact on HIT and You" on November 17. The webinar featured retired Congressman Alan Wheat of Missouri as well as Ned McCulloch, chair of the Advocacy and Public Policy Steering Committee, and Fred Hannett, chair of the Government Relations Roundtable.

2007 – HIMSS Goes Global
July 2006 through June 2007

In September 2006, HIMSS officially opened its HIMSS EMEA (Europe, Middle East and Africa) office in Brussels, Belgium. The office is staffed by MCI, a management consulting firm with offices throughout Europe and Asia. The HIMSS EMEA office operates much as the U.S. HIMSS office with the staff leading the educational efforts with input from HIMSS staff as needed.

World of Health IT: HIMSS expanded its member outreach and educational programming to Europe with the introduction of the first annual World of Health IT Conference & Exhibition, which was held in Geneva, Switzerland in October. This meeting was a joint venture with several sponsoring organizations working with HIMSS to establish the programs for the meeting.

Close to 2,000 people attended the conference. The event drew speakers, attendees and exhibitors from across Europe, the Middle East and Africa, including places as diverse as Andorra and Azerbaijan, Iceland and Israel and Saudi Arabia and Serbia-Montenegro. The main organizers of this event included HIMSS, the European Commission (EC) and the World Health Organization (WHO).

Keynote speakers at the event included some of the industry's most respected thought leaders and experts including a Senior Member of the European Parliament Baroness Emma Nicholson, the Commission's Ilias Iakovidis, Michael Bainbridge of the UK National Health Service and Claudio Beretta, general director of health for the Lombardy region of Italy. Other top names included Spaniard Maria Jesus Montero, minister of health for the Andalusia region and the Kuwaiti health minister, Sheik Ahmad Al-Abdullah Al Ahmad Al Sabah. Information Society and Media Commissioner Viviane Reding, meanwhile, sent an opening video address.

The final attendance was 1,751. Almost 80% of those surveyed indicated they would be attending WHIT 2007 in Vienna scheduled for October 23-26, 2007.

Awards
HIMSS Honors 2006 Award and Scholarship Recipients: More than 60 winners were honored by 400 attendees at the 2007 HIMSS Awards and Recognition Banquet.

Publication Award
Book of the Year
Nursing Informatics for the 21st Century: An International Look at Practice, Trends, and the Future
Editors: Charlotte A. Weaver, PhD, RN; Connie White Delaney, PhD, RN, FAAN, FACMI; Patrick Weber, MA, RN; Robyn L. Carr, RGON

Service Awards
Distinguished Fellows Service Award
Richard Reynolds, FHIMSS
Outstanding Special Interest Group Member Award
Cynthia McKinney, MBA, FHIMSS

Chapter Leader of the Year
Scott MacLean, MBA, CPHIMS, FHIMSS

Chapter Innovations Award
Grand Prize - Colorado Chapter
1st Runner Up - Georgia Chapter

2nd Runners Up - Minnesota and Ontario Chapters

Lifetime Members
Patrick F. Abrami, FHIMSS
Richard E. Duncan, MBA, FHIMSS
Robert D. Gunn, FHIMSS
Gail Malcolm, FACHE, FHIMSS
Morris H. Moriuchi, FHIMSS
John Templin, FACHE, FAAHC, DSHS, FHIMSS
James Turnbull, FHIMSS

Board of Directors Service Award
Wei-Tih Cheng, PhD, FCHIME, FHIMSS
Sheldon I. Dorenfest
June L. Lowe, FHIMSS
Blackford Middleton, MD, FACMI, FACP, FHIMSS
William Montgomery, FCHIME FHIMSS
David St. Clair

John A. Page Outstanding Service Award
Lawrence E. Dux, CPHIMS, FHIMSS
Barry Ross, FHIMSS

Leadership Award
Steve L. Arnold, MD, MS, MBA, CPE

Industry Awards
CHIME-HIMSS John E. Gall Jr./CIO of the Year Award
Eric Yablonka, MBA, FCHIME, FHIMSS

Nursing Informatics Leadership Award
Judy Murphy, RN, FACMI, FHIMSS

Physician IT Leadership Award
James R. Morrow, Jr., MD

ACCE-HIMSS Excellence in Clinical Engineering and Information Technology Synergies Award
Elliot B. Sloane, PhD
Raymond Zambuto, CCE, FACCE, FASHE, FHIMSS

Foundation Supported Scholarships
Undergraduate
Amanda Hardy

Master's
Joshua Pevnick, MD

PhD
Stephanie Hackett, MS, RHIA

Northern California Chapter
Jim Ort

Richard P. Covert, PhD, FHIMSS, Management Engineering
Laura English

Corporate Supported Scholarship
Healthlink Informatics Scholarship
Muzna Mirza, MD

Sentillion Scholarship
Veronica Sikka, MD

The 2006 Nicholas E. Davies Awards of Excellence

Public Health Davies Award of Excellence
The Texas Department of State Health Services, Behavioral Health Integrated Provider System, Austin, Texas

The New York State Environmental Public Health Tracking Network Data Exchange System, Albany, NY

Ambulatory Care Davies Award of Excellence
Cardiology of Tulsa, Tulsa, Okla.
Piedmont Physicians Group, Atlanta, Ga.
Alpenglow Medical, PLLC, Ft. Collins, Colo.

Organizational Davies Award of Excellence
Generations+/Northern Manhattan Health Network, New York, NY
Center for Behavioral Health, Bloomington, Ind.

2007 Annual HIMSS Conference & Exhibition
New Orleans, Louisiana was the perfect setting for the HIMSS07 Conference & Exhibition, February 25 – March 1, 2007. The revitalized city is all about building a bright future. The same could be said about the future of health IT.

Annual Conference Attendance: Total attendance at HIMSS07 was 24,076, a 3 percent decrease from HIMSS06. CIO attendance increased by 27 percent to 1,217. More than 1,200 attendees were present at the Sunday programs.

Annual Conference Education: The education program was the biggest and most important component of the conference, with more than 300 educational sessions. Participants were engaged in thought-provoking discussions, collaborative exchanges and interactive sessions on market dynamics, EHR/EMR/EPR applications, emerging technologies, clinical leadership and eHealth innovations.

Leading these forums were keynote speakers, visionaries and thought leaders from well-respected hospitals, universities, associations, government entities and health associations. Newly launched this year were wireless access to speaker presentations in all education rooms, SIG-created presentations in E-Sessions, new symposia and workshops, and an audience response system in the senior executive track.

Keynote Speakers: Leading the keynote roster at HIMSS07 were the following speakers:
- **General Colin Powell,** US Army (Ret.), 65th Secretary of State;
- **Steven Ballmer,** Chief Executive Officer, Microsoft; and
- **Dr. Stephen Covey**, co-founder of FranklinCovey Company and best-selling author.

Exhibition: The HIMSS07 event added 10 percent more companies and welcomed 279 first-time exhibitors for a total of 885 exhibiting companies. Attendees learned about new products and services, cutting-edge technologies and the latest healthcare IT solutions from the top health IT vendors. But more importantly, the HIMSS07 exhibition was the place where attendees could experience tangible innovation – up close and personal.

Interoperability Showcase: The Interoperability Showcase proved to be one of the most popular events during the exhibition. HIMSS and its partner vendors demonstrated that they are bringing the future of interoperable EHRs closer each day.

"Bigger"... Visionary"... "Revolutionary" are all words that described the HIMSS07 Interoperability Showcase. Sixty-nine vendors participated in the 9,200 sq.-ft. showcase, which attracted 3,600 attendees. Five international delegations were also on-hand from France, Germany, Holland, China and Japan. Also, present at the showcase was Maj. Gen. Gale S. Pollock, Interim Surgeon General of the Army.

Attendees could experience real, hands-on interoperability demonstrations, such as creating and tracking their own EHRs. The showcase also featured breakthrough technologies and standards to create an interactive environment within the RHIO.

HIMSS07 Attendee Satisfaction: The following percentages reflect the satisfaction with the annual conference and various aspects of it. The second column shows the change from the previous years' satisfaction score.

Overall Satisfaction	86%	(-1%)
Registration	86%	(+10%)
Value of Exhibition Floor	84%	(-2%)
Conference Marketing	82%	(+10%)
Daily News	79%	(+8%)

E-Sessions	73%	(+17%)
Networking	73%	(+9%)
Social Functions	72%	(+11%)
Education	71%	(-3%)
HIMSS07 Blog	47%	(new)

HIMSS07 Media: HIMSS07 media coverage reached an estimated audience of 65 million. Fifty news releases, media alerts and media tip sheets were released, and the national and international distribution of HIMSS press releases increased.

Media coverage highlights from the Conference included:
- Feature coverage in the 'Money' section of *USA Today* on February 26
- A front-page article and photo in *The Times-Picayune* on March 1
- A live interview on WSDU-TV (NBC) with Steve Lieber during the noon news on February 28
- Advance coverage in *New Orleans City Business* on February 21
- Extensive HIT trade coverage in AuntMinnie.com, *FierceHealth IT, Healthcare IT News, Health Data Management, Health Imaging & IT, Health Leaders* and *Modern Healthcare*
- In all, 80 reporters from around the world attended and reported on the conference from outlets including *The Wall Street Journal, Advance for H.I.E., E-Health Insider, Government Health IT, iHealthbeat, Imaging Technology News, Network World, RT-Image* and more.
- Over 161 placements reaching an estimated audience of about 65 million have been tracked from HIMSS07.

Public Policy

Government Relations: More than 70 pieces of legislation and 10 regulations were reviewed. There were five HIMSS awards showcasing government-related initiatives and five industry relationships expanded. HIMSS expanded its legislative principles into privacy and security, consumer empowerment, and population health monitoring. The HIMSS Arlington (Va.) office opened.

Congressional Relations: Four new Congressional members joined the House health IT caucus and one new member joined the Senate health IT caucus. More than 300 Capitol Hill visits were made. Attending the HIMSS annual conference were 13 congressional staff and one senator. HIMSS hosted four congressional staff seminars, co-sponsored nine congressional staff seminars and provided nine witnesses at congressional and federal agency hearings. HIMSS received seven requests to provide input into federal legislation.

6th Annual Advocacy Day: At this event, 540 congressional offices received HIMSS materials, and 276 staff and volunteers, representing 40 states, participated in the day's events, 51 more than in 2006. Hill visits totaled 215, with HIMSS advocates meeting with nine senators and 51 representatives. Twenty-seven co-sponsoring associations, six more than in 2006, also participated.

ONCHIT: The codification of the Office of the National Coordinator for Health Information Technology (ONCHIT) was supported by 48 officials, and 45 officials supported ONCHIT's FY08 budget request.

National Health IT Week: More than 600 participated in National Health IT Week. There were 60 co-sponsoring associations, and 15 HIMSS scholarships were awarded during the week. Two senators and six representatives participated in the first-ever National Health IT Week press conference. A House resolution was introduced, and the Senate passed a resolution unanimously designating National Health IT Week and specifically mentioning HIMSS.

Federal Affairs: The Public Policy Forum had 130 attendees. Ten HIMSS members presented to the National Committee on Vital and Health Statistics (NCVHS) and the American Health Information Community (AHIC). Four pieces of analysis were published. Information management best practices were provided to the Government Accountability Office. The HIMSS/Centers for Disease Control and Prevention (CDC) Project Public Health IT was launched, and HIMSS expanded the federal presence at the Interoperability Showcase to the ONC, CDC, Department of Defense, and Veterans Administration.

Public Comment Periods: During the various public comment periods, 4,300 volunteer and staff hours were spent toward making 43 responses. Thousands of pages were submitted.

State Government Relations: Sixty-seven Chapter Advocates from 41 chapters were active, with 37 chapters (90 percent) engaged in some measurable advocacy activity. Thirty-one Chapters (46 percent) achieved recognition for their advocacy work. Three Chapter Advocacy Days, Chapter Advocate Training, and the Chapter Advocacy Liaison Recognition Program were launched.

Community Affiliations

Individual Memberships: There were 19,023 members, including 16,224 paid, for a 4.7 percent increase in total members and a 6.4 percent increase in paid members. The individual member retention rate was 75.5 percent.

Corporate Membership: Actual revenue totaled $2,873,805 (2% over budget). There were 328 paid corporate members by year-end FY07, including 83 new corporate members. The average corporate member retention rate was 77 percent, with 9 percent corporate member growth over FY06.

Exhibits & Sponsorships: Total actual sponsor revenues were $1,072,850 (6% over budget). Actual exhibit revenues were $9,782,072 (2% over budget). Exhibit space increased by 11 percent from FY06.

Communities: This year**,** 5,000 members were engaged in two user groups, and 4,000 members were engaged in 20 special interest groups (SIGs). There were 850 volunteers working on 78 task forces and work groups, 180 volunteers on three roundtables, and 215 appointees to 13 HIMSS committees. Two new SIGs were organized.

Chapters: There were 450 chapter leaders in 47 chapters in 45 states; 109 chapter leaders attended training. Two new chapters and a new chapter leader website were launched.

Informatics

TIGER Initiative/Technology Informatics Guiding Education Reform: The focus of the TIGER Initiative is to better prepare the nursing workforce (all practicing nurses and nursing students) to use technology and informatics to improve the delivery of patient care. Members of this initiative believe that *necessary skills* for nurses' portfolio in 2007 include computer literacy and information literacy. The TIGER Initiative is a program; not an organization. TIGER has been a grass-roots effort to engage with all stakeholders that are committed to a common "vision" of ideal EHR-enabled nursing practice.

More than 70 diverse organizations have joined this effort, which was launched in in late October 2006 at the Uniformed Services for Health Sciences (USUHS) in Bethesda, Md. At this meeting, the group of 100 participants created a collective vision for nursing practice and education within 10 years, if nurses were fully enabled with IT resources. To achieve this vision, the group developed a 3-year action plan. Visit www.tigersummit.com for the summary report.

Nursing Informatics Workforce Survey: There were 776 respondents to the Nursing Informatics Workforce Survey. At the 2007 Technology Informatics Guiding Education Reform (TIGER) Summit, 120 organizations were represented. Alliance for Nursing Informatics (ANI) member organizations increased by 20 percent. The Pharmacy Community was launched.

Integrating the Healthcare Enterprise (IHE) Interoperability Showcase: The IHE Interoperability Showcase attracted 600 visitors, including five international delegations and 10 VIP tours. Seventy-six organizations participated as vendors. Fourteen clinical scenarios and a new domain – patient care devices – were demonstrated.

Standards: Three Health Information Technology Standards Panel (HITSP) Interoperability Specifications were accepted by the Department of Health and Human Services (HHS), the result of 351 volunteer members engaged in HITSP Technical Committees. Global Summit 3 had 120 participants. In the International Standardization Organization (ISO) Technical Committee (TC)-215, there were 22 member countries, 16 observers and three new liaisons.

Privacy and Security: Version 6.0 of the HIMSS Privacy and Security Toolkit was published, and a quarterly update schedule was implemented. The standards-writing process for the Manufacturer Disclosure Statement for Medical Device Security (MDS2) Form began in anticipation of its future submission as the ISO standard for medical device security. The Application Security Questionnaire (ASQ), a tool to assess security features of software applications, was published. Ongoing contributions included the creation of privacy and security legislative principles and the creation and delivery of Privacy and Security 101 and Health IT 101 training for legislators.

Organizational Effectiveness

Communications and Marketing: Three new brands and two e-newsletters were launched, and

the circulation of opt-in niche topic newsletters increased by 21 percent.

Professional Development

Virtual Conference: The first HIMSS Virtual Conference & Expo was held on May 16-17, 2007 with 87 percent of attendees indicating they had never attended an online conference before. Conference attendance included 2,300+ registrants with 65 percent of those registered attending the conference. There were 18,574 visits to 31 booths and 16,000 requests for documents. The average length of an attendee's visit was 2.5 hours. The average length of time for the 1,700 chats was 2.5 minutes.

Connecting Communities Learning Forums: Organized through a partnership between the eHealth Initiative and HIMSS chapters, these events drew 184 attendees in Boston, 135 in Chicago, 122 in Orlando, and 75 in Salt Lake City.

The Transformational IT Governance Summit: A HIMSS leadership event, this summit featured educational tracks addressing EHRs, governance, leadership and technology. An industry innovations track was launched at this summit.

Career Services: There was $88,052 in revenue gained by year-end (18% over budget).

CPHIMS: As of May 2007, 228 applications were submitted. There was a 62.1 percent certification renewal rate and 91 approved programs for continued education. Two special administrations of the CPHIMS examination were scheduled. HIMSS07 offered three on-site CPHIMS certification exam sessions, providing instant score reporting to 83 pre-registered candidates and bringing the total number of certified professionals to 815.

Communications/Publications

Eight books and one CD were published and 40 titles distributed, contributing to an 18.5 percent increase in publications revenue.

2007 Annual Report of the U.S. Hospital IT Market. HIMSS/HIMSS Analytics ™ LLC

Beyond Return on Investment: Expanding the Value of Healthcare Information Technology. Pam Arlotto, MBA, FHIMSS, Patricia C. Birch, MBA, Marla H. Crockett, RN, MBA, and Susan P. Irby, MSHS

Guide to Establishing A Regional Health Information Organization. Christina Beach Thielst, FACHE, and LeRoy E. Jones, Editors (Written by the HIMSS RHIO Guidebook Task Force)

Medical Informatics: An Executive Primer. Kenneth R. Ong, MD, MPH, FACP, FIDSA, Editor

Improving Quality and Reducing Cost with Electronic Health Records: Case Studies from the Nicholas E. Davies Awards. Introduction by Patricia Wise, RN, MSN, MA, FHIMSS

Electronic Prescribing for the Medial Practice: Everything You Wanted to Know But Were Afraid to Ask. Patricia L. Hale, MD, PhD, FACP, Editor

Guide to the Electronic Medical Practice: Strategies to Succeed, Pitfalls to Avoid. Steven Arnold, MD, MS, MBA, CPE, Editor

Developing a Data Warehouse for the Healthcare Enterprise: Lessons from the Trenches. Bryan Bergeron, MD with Hamad Al-Daig, BS, MBA, Enam UL Hoque, BS, MBA, PMP, Fadwa Saad AlBawardi, BS, MS, and Osama Alswailem, MD

Web Services: The average repeat visitors to www.himss.org increased by 21 percent. Enhanced web analytic tools were implemented.

Healthcare Information Systems

HIMSS Davies Awards: Seven organizations won Davies Awards. In addition, five new white papers pertaining to the awards were made available for free online and one book was published. The Davies volunteer orientation was launched and HIMSS successfully re-engaged the Davies founders. Speeches and op-ed pieces about the Davies Awards were drafted.

Ambulatory Information Systems: Seven new tools were made available on the HIMSS website. An 11 percent growth in subscriptions made the *Digital Office,* HIMSS' most-widely distributed e-newsletter. A new community for the underserved, Ambulatory Community Health Centers, was launched. HIMSS published an authentication technology white paper with the Government Services Agency.

HIMSS Katrina Phoenix: HIMSS received $610,000 in donations to rebuild with electronic health records (EHRs) medical practices decimated by Hurricane Katrina. Nine practices were identified for assistance, and they each received a cash grant provided by the HIMSS Foundation. Six practices fully implemented EHRs and a new partnership was established with the Morehouse School of Medicine.

Enterprise Information Systems: More than 30 RFIs were collected on clinical systems. The EHR inventory included 19 countries. The Linking Health Information Roadmap included 13 competencies. Members were offered 12 webinar sessions. Eleven Management Engineering/Process Improvement (ME/PI) tools, four enterprise integration white papers, and four integration and interoperability use cases were published.

Electronic Health Records Vendors Association (EHRVA): Some 42 HIMSS corporate members participated in this group, which worked with the Certification Commission for Health Information Technology (CCHIT) to review and provide feedback on certification criteria; review CCHIT by-laws to ensure long-term sustainability, manage costs and avoid complexity; and provide representation as commissioners and on workgroups. HIMSS EHRVA also supported interoperability and standards by contributing to the interoperability roadmap, working on standards harmonization with HITSP, providing representation on the Health Level Seven (HL7) board, participating on the Integrating the Healthcare Enterprise (IHE) Quality Domain,

and contributing to the interoperability presentation at the Capitol Hill Steering Committee on Telehealth and Healthcare Informatics.

HIMSS Analytics
2007 HIMSS Analytics Research

- 2007 Annual Report of the US Hospital IT Market;
- Second Annual HIMSS Analytics Essentials of the US Hospital IT Market;
- Sharpening the Case for Returns on Investment from Clinical Information Systems, 2007;
- 2007 HIMSS Analytics Report: Care-Based Revenue Cycle Management, February 2007; and
- Stage 6 Hospitals: The Journey and the Accomplishments, September 2007

HIMSS Global
- The World of Health IT and eHealth Week, AsiaPac, and the Virtual Conference and Exhibit were launched, as well as a partnership with the eHealth Initiative. Webinars were expanded to new audiences.

- Held from Oct, 11-13, 2006, in Geneva, Switzerland, World of Health IT and eHealth Week was attended by 1,751 individuals (612) paid. Revenue gained was $1,029,000. There were 55 education sessions, three symposia and 59 exhibitors.

- Held from May 15-18, 2007, in Singapore, AsiaPac was attended by 1,139 individuals (451 paid). Revenue gained was $752,000. There were 47 education sessions, three symposia and 51 exhibitors.

2008 – HIMSS Launches Institute for e-Health Policy
July 2007 through June 2008

Under the HIMSS Foundation, HIMSS launched the Institute for e-Health Policy in May 2008 to provide research and educational opportunities for public- and private-sector stakeholders—two key constituents who make and are most directly impacted by e-health policy decisions. The Institute is part of the HIMSS Foundation, a 501(c) (3) organization with charitable, scientific and educational goals. Read more about the Institute for e-Health Policy.

Awards
HIMSS Honors 2007 Award and Scholarship Winners: HIMSS recognized more than 30 outstanding industry leaders and organizations during its 2008 Awards and Recognition Banquet at the Peabody Hotel in Orlando. Held in conjunction with HIMSS08, the banquet honored the 2007 award recipients for their significant contributions to the Society, their organizations and the healthcare IT profession. The 2007 award recipients are listed below:

Publication Award

Book of the Year
Medical Informatics: An Executive Primer, Editor: Kenneth R. Ong, MD, MPH

Paper Kills: Transforming Health and Healthcare with Information Technology, Editor: David Merritt

Service Awards
Outstanding Special Interest Group (SIG) Member Award
Dexter D'Costa, MBBS, MHA, CPHIMS

Distinguished Fellows Service Award
Dean J. Athanassiades, PMP, CPHIMS, FHIMSS

Lifetime Members
Paul Mermelstein, LHIMSS
Frank Milewski, LHIMSS
Ned Simpson, LHIMSS
Joseph J. Wagner, MPA, LFHIMSS
Thomas Webb, LHIMSS

Board of Directors Service Award
Marion J. Ball, EdD, FCHIME, FHIMSS
Simon P. Cohn, MD, MPH, FACEP
Janet M. Dillion, FHIMSS
Raymond A. Gensinger Jr., MD, CPHIMS, FHIMSS
George T. Hickman, CPHIMS, FHIMSS
Karen J. Ondo, FHIMSS, MTASCP

John A. Page Outstanding Service Award
John L. Templin Jr., LFHIMSS, FAAHC, FACHE, DSHS

Leadership Award
Emma Cartmell
Lyman Dennis, PhD, CPHIMS, FHIMSS

Chapter Leader of the Year
Colin B. Konschak, MBA, RPh, CPHIMS

Chapter Innovations Award
Grand Prizes - Georgia Chapter and the Western Pennsylvania Chapter
Runners-Up - New England Chapter and the Oregon Chapter

Industry Awards
ACCE-HIMSS Excellence in Clinical Engineering and Information Technology Synergies Award

John D. Hughes Jr., MS

SHS-HIMSS Excellence in Healthcare Management Engineering/Process Improvement Award
John L. Templin Jr., LFHIMSS, FAAHC, FACHE, DSHS

Physician IT Leadership Award
Peter Basch, MD, FACP

Nursing Informatics Leadership Award
Patricia C. Dykes, DNSc, MA, RN

CHIME/HIMSS John E. Gall, Jr. CIO of the Year Award
George T. Hickman, CPHIMS, FHIMSS

The 2007 Nicholas E. Davies Awards of Excellence
Public Health Award of Excellence
Illinois – National Electronic Disease Surveillance System (I-NEDSS), Springfield, Ill.
Institute for Family Health, New York, NY

Ambulatory Care Award of Excellence
Valdez Family Clinic, San Antonio, Texas
Village Health Partners, Plano, Texas

Organizational Award of Excellence
Allina Hospitals and Clinics, Minneapolis, Minn.

2008 Annual HIMSS Conference & Exhibition
HIMSS08 attracted 29,179 attendees, a 33 percent increase over 2007 and 41 percent increase in attendance from target organizations, such as critical access hospitals. CIO attendance increased by 30 percent from 2007 and professional attendees by 33 percent.

Addressing a mix of compelling issues, keynote speakers included:

- **Bill Frist, MD,** former US Senator, Tennessee;
- **Robert Kolodner, MD**, National Coordinator, Health Information Technology, Office of the National Coordinator, Department of Health and Human Services;
- **Michael O. Leavitt,** Secretary, HHS;
- **Steven Case,** Chairman and CEO, Revolution Health Group and co-founder, America Online (AOL);
- **Eric Schmidt, PhD**, CEO, Google; and
- **Steven D. Levitt**, author of the NY Times bestseller *Freakonomics - A Rogue Economist Explores the Hidden Side of Everything*

Held at the Orange County Convention Center in Orlando, February 24-28, the meeting also attracted 942 exhibitors. The exhibit floor spanned more than 407,000 square feet filled with 942 exhibiting companies – and 252 first-time HIMSS08 exhibitors.

But the numbers don't really tell the success story here – the real-world solutions do. Attendees could learn the latest about EHRs, medication management systems, ambulatory care, e-prescribing, clinical data sharing and so much more. At the must-see, 12,000 sq.-ft. Interoperability Showcase, and 2,800 visitors had the opportunity track their own EHR. With 67 participating organizations, the showcase netted more than $290,000 in revenue for HIMSS. The Product Pavilion featured IT solutions for system implementations.

There were substantial increases by attendees representing hospitals and hospital systems, as well as from C-level executives and professionals whose work focused included clinical systems, IT infrastructure, e-commerce/e-health, and leadership management. More than 70 percent of the attendees had decision making authority – up from 55 percent in 2007.

HIMSS08 Media: Strategic placement of national, local and trade coverage created headlines across the country before, during and after HIMSS08. More than 195 placements reaching an estimated audience of more than 200 million have been tracked from the HIMSS08 Annual Conference & Exhibition. Some 129 reporters from around the world attended. Mentions of HIMSS08 appeared in national media outlets including the *Associated Press, Bloomberg, Reuters* and the *Wall Street Journal* and in Orlando media outlets, including *WOFL-TV* [FOX - Orlando] and multiple stories in *Florida Today* and the *Orlando Sentinel.* Trade media outlets providing in-depth coverage included *Modern Healthcare.*

Healthcare Information Systems
Ambulatory Information Systems: A presentation on health IT adoption was created and a COMCARE video was posted. White papers on community health organizations and electronic health record implementation in ambulatory care were developed.

Personal Health Records (PHRs): HIMSS produced a Definition and Position Paper, published an Environmental Scan of PHRs, and delivered PHR tools online.

Patient Safety and Quality Outcomes: HIMSS published a white paper on pandemic flu, a primer for congressional staffers, and a position statement on auto-ID and bar-coding for small hospitals. HIMSS also completed a survey of small hospitals, produced a manuscript on implementing wireless technologies, and contributed its ideas to The Joint Commission's stance on patient safety goals for hospitals.

Business-Centered Systems
Business Information Systems: The Association for Electronic Health Care Transactions (AFECHT) was welcomed into HIMSS, and the AFECHT Advisory Council was launched. Three tools were published online, and business and financial systems issues were inserted into key HIMSS competencies such as government relations, education and research.

Professional Development

eLearning Academy: HIMSS launched the eLearning Academy to provide top-rated HIMSS education to members on a 24/7 basis.

Virtual Conference & Expo: The HIMSS Virtual Conference & Expo continued to attract attendance with some 4,500 participants attending the 2008 event. In addition, since last year's Annual Conference, almost 200 chapter educational and networking events have been held in North America.

Career Services: HIMSS launched a new and updated JobMine service for members. The Society also introduced a Young Professionals Online Resource Area that includes a mentoring program.

Communities

Membership surpassed 2,000+ Cisco for Community for Connected Health members and 5,000+ Microsoft HUG members.

Informatics

TIGER Initiative: Through the TIGER Initiative, IT is now included in nursing curricula across the United States. HIMSS introduced the nursing informatics community of profession. And, in collaboration with AAMI and ACCE, HIMSS launched Clinical Engineering – IT Community.

CPHIMS: From March 1-December 31, 2008, 111 newly certified individuals became part of the CPHIMS roster. HIMSS also introduced a new CPHIMS exam and review materials. Expanding its outreach to Canada for certification, HIMSS signed an agreement with COACH: Canada's Health Informatics Association, to advance the CPHIMS credential as the premier health IT credential in Canada, including development of a Canadian Supplemental Exam to test competencies specific to the Canadian healthcare system.

Regional Health Information Organizations (RHIOs) and Health Information Exchanges (HIEs): HIMSS launched the HIE Steering Committee and a partnership with the eHealth Initiative and also revitalized the Chapter RHIO Roundtable. HIMSS also provided industry experts to present testimony, published a top-selling HIMSS book, and was named as sub-contractor on Office of the National Coordinator (ONC) state initiatives.

Publications/Communications

New Publications: New books published include the following titles:

2008 Annual Report of the U.S. Hospital IT Market. HIMSS/HIMSS Analytics ™ LLC

Guide to the Wireless Medical Practice: Finding the Right Connections for Healthcare. Steven Arnold, MD, MS, MBA, CPE, Editor

Preparing for Success in Healthcare Information and Management Systems: The CPHIMS Review CD ROM. HIMSS

Preparing for Success in Healthcare Information and Management Systems: The CPHIMS Review Guide. HIMSS

The Healthcare Information Technology Planning Fieldbook: Tactics, Tools and Templates for Building Your IT Plan. George T. Hickman, FHIMSS, CPHIMS, and Detlev H. (Herb) Smaltz, PhD, FHIMSS, FACHE

Personal Health Records: The Essential Missing Element in 21st Century Healthcare. Holly Dara Miller, MD, MBA, William A. Yasnoff, MD, PhD, FACMI, and Howard A. Burde, Esquire

Two new 3-newsletters, *HIELights* and *Financial Edge*, with content from health information systems staff, are now part of the HIMSS e-newsletter family.

HIMSS Analytics
2008 HIMSS Analytics Research

- 2008 Annual Report of the US Hospital IT Market;
- Third Annual HIMSS Analytics Essentials of the US Hospital IT Market;
- 2008 HIMSS Analytics Report, Security of Patient Data, April 2008;
- The HIMSS Analytics Guide to Evaluating Mobile Cart Technology, May 2008;
- 2008 HIMSS/HIMSS Analytics Ambulatory Healthcare IT Survey, October 2008; and
- Hospital IT Expenses and Budgets Related to Clinical Sophistication, October 2008

HIMSS Global
- The World of Health IT Conference and Exhibition and eHealth Week was held from October 22-25, 2007, in Vienna, Austria.

- HIMSS Global Services was formed in December 2007, with Jeremy Bonfini joining HIMSS as senior vice president, global services.

- Steven Yeo joined HIMSS in April 2008 as first vice president and executive director, HIMSS Asia Pacific. He was based in Singapore, bringing almost 20 years of Asian health IT experience to HIMSS.

- Michael Strubin continued in his role as executive director of HIMSS Europe.

- The HIMSS Brussels office opened on June 16, 2008.

- The HIMSS Asia Pacific Conference and Exhibition was held from May 20-23, 2008, in Hong Kong.

2009 – US Economic Stimulus Legislation Passes
July 2008 through June 2009

Throughout the year, HIMSS worked to educate Congressional leaders on its membership's policy priorities and provide legislative resources to HIMSS members. In 2009, during the First Session of the 111th Congress, more progress was made to advance the transformation of patient-centric healthcare using information technology (IT) than in any previous year. Through passage of the American Recovery and Reinvestment Act of 2009 (ARRA), on Feb. 17, 2009, Congress took significant steps in establishing leadership for national health IT initiatives and providing funding to bolster the electronic exchange of health information.

Specifically, the ARRA included more than $30 billion for health IT and worked to build a solid IT infrastructure for the healthcare sector. President Obama referred to this investment in health IT as the foundation for healthcare reform. Visit the HIMSS website for an update on HIMSS' public policy efforts around this legislation.

Awards
HIMSS Honors 2008 Award and Scholarship Recipients: HIMSS recognized outstanding industry leaders and organizations during its 2009 Awards and Recognition Banquet. Held in conjunction with HIMSS09, the banquet honored the 2008 award recipients for their significant contributions to the Society, their organizations and the healthcare IT profession. The 2008 award recipients are listed below:

Publication Award
Book of the Year Award
Developing a Data Warehouse for the Healthcare Enterprise, By Bryan Bergeron, MD

Keys to EMR Success: Selecting and Implementing an Electronic Medical Record, By Ronald Sterling, CPA, MBA

Service Awards
Distinguished Fellows Service Award
Robin S. Raiford, RN, BC, CPHIMS, FHIMSS

Outstanding Special Interest Group Member Award
Feliciano Yu, MD, MSHI, MSPH, CPHIMS

Chapter Leader of the Year Award
Barry T. Ross, MHSA, MSIE, LFHIMSS

Lifetime Member Award
John R. Freeman, PhD, LFHIMSS
Barbara Gerhardt, LFHIMSS
Robert Kowalski
Frank C. Overfelt, FACHE, LFHIMSS

Board of Directors Service Award
Margaret Amatayakul, RHIA, CHPS, FHIMSS
Victoria M. Bradley, RN, CPHIMS, FHIMSS
Steven J. Fox, JD
John T. Hansmann, CPHIMS, FHIMSS
John C. Wade, FCHIME, FHIMSS

John A. Page Outstanding Service Award
Ned Simpson, LFHIMSS

Leadership Award
Randy McCleese, FHIMSS
Charles Parker
Barry T. Ross, MHSA, MSIE, LFHIMSS

Chapter Innovations Award
Grand Prizes
Iowa Chapter – Small Chapter
Southern California Chapter – Large Chapter

Runners Up
Arizona Chapter – Small Chapter
Tennessee Chapter – Large Chapter

Industry Awards
CHIME-HIMSS John E. Gall Jr. CIO of the Year Award
Patricia Skarulis, Vice President and CIO, Memorial Sloan-Kettering Cancer Center

Nursing Informatics Leadership Award
Rosemary Kennedy, RN, MBA, Chief Nursing Informatics Officer, Siemens Medical Solutions

Physician IT Leadership Award
Brian R. Jacobs, MD, CMIO and Executive Director, Center for Pediatric Informatics, Children's National Medical Center

ACCE-HIMSS Excellence in Clinical Engineering/IT Synergies Award
Todd H. Cooper

SHS-HIMSS Excellence in Healthcare Management Engineering/Process Improvement Award
Lawrence E. Dux, CPHIMS, FHIMSS

The 2008 Nicholas E. Davies Awards of Excellence
Public Health Award of Excellence
Cherokee Indian Hospital Authority, Cherokee, N.C.

New Jersey Department of Health and Senior Services, Trenton, N.J.

Ambulatory Care Award of Excellence
Cardiology Consultants of Philadelphia, Philadelphia, Pa.
Oklahoma Arthritis Center, Edmond, Okla.
Palm Beach Obstetrics & Gynecology, Lake Worth, Fla.

Community Health Organization Award of Excellence
Columbia Basin Health Association, Othello, Wash.
Community Health Access Network, Newmarket, N.H.
New York Children's Health Project, New York, N.Y.
White River Rural Health Center Inc., Augusta, Ark.

Organizational Award of Excellence
Eastern Maine Medical Center, Bangor, Maine

2009 Annual HIMSS Conference & Exhibition

HIMSS09 was held at a time when dramatic transformations were happening in health IT: a new "pro-health IT" administration for advancing EMR adoption, interoperability, standards, privacy & security, and more. In addition, $19 billion from the American Recovery and Reinvestment Act (ARRA) would help clinicians toward the goals of higher quality and patient safety.

Attendance: HIMSS09 attendance was 27,429 – running slightly lower than 2008 and a substantial increase from 2007. Even in a downturn economy, the demand for an industry event, such as HIMSS09, is still critical.

HIMSS09 attracted more C-level executives than in 2008. About 44 percent of attendees were first-timers, bringing new buyers to the exhibition. About 75 percent of attendees were decision makers and influencers.

A large percentage of the HIMSS09 attendees had a work focus in IT infrastructure, clinical systems, leadership management and ecommerce/ehealth.

There were increases in executive level attendance, including a 2 percent increase for CEOs, chairmen, presidents, executive directors, administrators and group practice managers. Other professional titles in attendance were on par with 2008 – a record-breaking year.

Healthcare consulting firms and ambulatory care organizations were among the areas demonstrating slight increases. The majority of the attendees were from hospital, multi-hospital systems and integrated delivery systems.

About 75 of the attendees contribute to the decision making for major purchases – slightly ahead of 2008.

Keynote Speakers: Timely and relevant keynote speakers included:

- **Dennis Quaid,** actor;
- **Alan Greenspan,** former Federal Reserve Chairman;
- **George Halvorson**, Kaiser Permanente Chairman and CEO; and
- **Jerry Linenger,** physician and astronaut.

Education: More than 300 education sessions addressed topics including ARRA, EMRs, privacy & security, quality, patient safety, interoperability, and public policy initiatives.

Exhibits: Some 907 exhibitors demonstrated cost-effective product solutions designed for today's shrinking budgets, The Interoperability Showcase gave attendees the opportunity to create and manage their own virtual health record – in real-time. The Showcase included 72 participating organizations and with some 4,000 visitors touring the 16,440 sq.-ft. showcase.

HIMSS09 Local, National & Global Media: The media buzz started early and continued after the conference. With the strategic placement of local, national and trade coverage – HIMSS09 reached an audience of over 104 million people through 290 stories.

National media outlets were represented by *Reuters Health, CNNMoney.com, Bloomberg News, New York Times Online, Fox Business News, USA Today Online* and the *Associated Press*

Local print and broadcast coverage was provided by the *Chicago Tribune, Chicago Sun-Times, Daily Herald, WLS-TV/ABC, WGN-TV* and *WBBM-AM*

More than 150 reporters attended.

Regional Affairs
Chapter Advocacy Days: Twelve Chapter Advocacy Days were held around the nation:
- Virginia - January 22, 2009
- Texas - January 27, 2009
- Maryland - February 17, 2009
- Iowa - February 17, 2009
- Kentucky - February 18, 2009
- Ohio - February 25, 2009
- Tennessee - March 3, 2009
- Western States Health eConnections Summit (Arizona) - March 3, 2009
- New Jersey - March 9, 2009
- Pennsylvania - May 5, 2009
- California - May 12, 2009
- New York – May 12, 2009

Membership: A new chapter – the San Antonio HIMSS Chapter – was formed. Total new membership grew by 52.6 percent, from 6,686 to 10,205. Paid new membership increased by 10.9 percent, from 5,775 to 6,405. Growth in the Microsoft HUG user group increased by 40.8 percent, growing from 4,453 to 8,269. The CISCO user group increased by 75.2

percent, from 2,093 to 3,680. Total FY09 membership was 24,125, compared to 20,176 at the end of FY08 – an increase of 19.6 percent.

Informatics
Standards and IHE: IHE International launched with 250 organizational members and 400 individual volunteers.

Healthcare Information Systems
Plug-In!: HIMSS was selected as a provider of management services for a newly launched independent organization–Plug In!. The new organization is dedicated to improving the health of the public by empowering consumers to effectively manage their wellness and healthcare with the adoption and use of health IT. Plug In, the first non-for-profit organization of its kind to bring together consumers and health IT, includes consumers, educators, clinicians, informaticists, business leaders and employers who all share the vision of educating and enabling consumers to improve and better manage their healthcare. Plug In! is now developing educational programs and demonstration projects, as well as conducting research. Visit www.pluginforhealthcare.org to learn more about Plug In!

Stories of Success!: HIMSS launched its Stories of Success! program, which is a Call for Case Studies, in co-sponsorship with the American Society for Quality (ASQ), National Committee for Quality Assurance (NCQA) and National Patient Safety Foundation (NPSF). This program recognizes healthcare organizations that have leveraged health IT to demonstrate fulfillment of national priorities recommended by the National Priorities Partnership (NPP) and The Joint Commission's (TJC) National Patient Safety Goals (NPSG). Visit http://www.himss.org/storiesofsuccess/ for more information.

HIMSS/AHIMA Collaboration: HIMSS and AHIMA collaborated through the HIE Privacy & Security Work Group, an effort resulting in a white paper available on the HIMSS website.

Financial Systems
This content area conducted its first HIMSS 5010/ICD10 Readiness Provider Survey, while also introducing a collaborative initiative with HIMSS, CAQH CORE, IHE, and 5010.

Government Relations
"A Call to Action" was completed to educate policy makers on how health IT could be used to reform healthcare. "Week in Review" was initiated to inform HIMSS members on healthcare reform. The American Recovery and Reinvestment Act (ARRA) was passed with billions for health IT. The HIMSS Healthcare Reform Committee was launched.

HIMSS Analytics
2009 HIMSS Analytics Research
- 2009 Annual Report of the US Hospital IT Market;
- Fourth Annual HIMSS Analytics Essentials of the US Hospital IT Market;
- The 2009 HIMSS Analytics Guide to Evaluating Mobile Cart Technology, March 2009;

- Top Five Challenges for Wireless Healthcare Deployments, May 2009;
- Intelligent Medical Devices in Hospitals – An Overview, June 2009;
- The State of US Hospitals Relative to Achieving Meaningful Use Measurement, October 2009; and
- 2009 HIMSS Analytics Report: Evaluating HITECH's Impact on Healthcare Privacy and Security, November 2009

HIMSS Global
- The World of Health IT Conference and Exhibition was held from November 4-6, 2008, in Copenhagen, Denmark.

- The HIMSS Asia Pacific Conference and Exhibition was held from February 24-27, 2009, in Kuala Lumpur, Malaysia.

- The Singapore office opened on April 1, 2009. Agnes How was hired as the office manager.

- The HIMSS Middle East Conference was held from May 5-7, 2009, in Manama, Bahrain.

2010 – HIMSS Acquires Medical Banking Project
July 2009 through June 2010

HIMSS acquired Nashville-based Medical Banking Project in October 2009, providing a banking technology stakeholder perspective that positions HIMSS as a single industry resource with all major financial, administrative and clinical stakeholders. HIMSS acquired the Medical Banking Project to boost "cross-industry dialogue" between the banking and health IT communities with plans to expand on current Medical Banking Project programs, including industry forums, work groups and an annual institute. John Casillas, founder in 2001 of the Medical Banking Project, joins HIMSS as a senior vice president.

Awards

HIMSS Honors 2009 Award and Scholarship Winners: Recognizing the exemplary contributions and leadership of HIMSS members in moving forward the adoption of interoperable electronic health records, HIMSS announced the recipients of its 2009 Awards and Recognition Program. The HIMSS Foundation and three HIMSS chapters also provided seven individual annual college scholarships to students enrolled in health IT and management systems university degree programs. All award and scholarship honorees were recognized on March 2, 2010 at the Omni Hotel in Atlanta during the 2010 Annual HIMSS Conference and Exhibition.

Publication Award
Book of the Year
Improving Medication Use & Outcomes with Clinical Decision Support: A Step-by-step Guide

Editor: Jerome A. Osheroff, MD, FACP, FACMI, Chief Clinical Information Officer, Thomson Reuters, Cherry Hill, NJ

Service Awards
Distinguished Fellows Service Award
Cindy McKinney, MBA, FHIMSS, Senior Managing Consultant, IBM, Kansas City, Mo.

Life Members
Leroy Baker, CPHIMS, LFHIMSS, Mazomanie, Wis.
Michael Kusmin, MBA, CPHIMS, LFHIMSS, Westwood, Mass.
Harvey Z. Roth, CPHIMS, LFHIMSS, Orinda, Calif.

Board of Directors Service Award
Charles Christian, FCHIME, FHIMSS, Director of Information Systems and CIO, Good Samaritan Hospital, Vincennes, Ind.

Jay Srini, FHIMSS, Chief Innovation Officer, University of Pittsburgh Medical Center, Pittsburgh, Penn.

Sunny Sanyal, President, McKesson Corporation, Alpharetta, Ga.

John Blair III, MD, President, Taconic IPA, Inc., Fishkill, NY

John A. Page Outstanding Service Award
Helen Hill, FHIMSS, Henry Ford Health System, Ann Arbor, Mich.

Founders Leadership Award
John Maese, MD, FACP, FHIMSS, President, Quality Physician Services, Brooklyn, NY

Chapter Leader of the Year
Duke Rohe, BS, FHIMSS, Performance Improvement Specialist, The University of Texas M.D. Anderson Cancer Center, Houston, Texas

Chapter Innovations Award
Grand Prize - Arizona Chapter and Northern California Chapter

Industry Awards
ACCE-HIMSS Excellence in Clinical Engineering and Information Technology Synergies Award
Adrian Johnson, BTECH, BEPS, Director, Biomedical Engineering, London Health Sciences Centre, London, ON

SHS-HIMSS Excellence in Healthcare Management Engineering/Process Improvement Award

Barry Ross, MHSA, MSIE, DSHS, LFHIMSS; Life Member, IIE; Examiner, Malcolm Baldrige National Quality Award (2009); Pittsburgh, Penn.

Physician IT Leadership Award
William Bria, MD, CMIO, Shriners Hospital for Children, Tampa, Fla.
Nursing Informatics Leadership Award
Ida Androwich, PhD, RN, BC, FAAN, Professor and Director, Health Systems Management, Loyola University Chicago, Maywood, Ill

CHIME-HIMSS John E. Gall CIO of the Year Award
William Spooner, FCHIME, Senior Vice President and CIO, Sharp HealthCare, San Diego, Calif.

Scholarships - HIMSS Foundation Supported
Undergraduate
Meha Goyal

Master's
Michael Hoaglin

PhD
Catherine Ivory, RNC-OB, MSN

Richard P. Covert, PhD, FHIMSS, Management Engineering
Kezban Yagci, MPH

Chapter Supported Scholarships
New England HIMSS Dvora Brodie
Maryam El Kherba

New York Chapter
Samuel Espino, MBA, PMP
Lindsay Speros

The HIMSS Northern California Chapter
Lynn Bar

The 2009 Nicholas E. Davies Awards of Excellence

Davies Organizational Award
MultiCare, Tacoma, Wash.

Davies Ambulatory Award
Virginia Women's Center, Richmond, Va.

Davies Public Health Award
Boston Public Health Commission, Boston, Mass.
Denver Public Health Information Service, Denver, Colo.

Davies Community Health Organization Award
Urban Health Plan, Bronx, NY
Heart of Texas Community Health Center, Waco, Texas

2010 Annual HIMSS Conference & Exhibition

HIMSS10 outpaced 2009 attendance, attracting some 27,855 healthcare professionals. Statistics show that HIMSS10 attracted leaders, first-time attendees, decision-makers and influencers from across the healthcare continuum.

Keynote Speakers: Top speakers attracted standing room only audiences as HIMSS10 welcomed the following luminaries.
- **Dan Hesse,** CEO of Sprint;
- **David Blumenthal, MD**, National Coordinator for Health Information Technology;
- **Sanjay Gupta, MD**, CNN;
- **Harry Markopolos;** Fraud Investigator; and
- **Chesley B. "Sully" Sullenberger, III**, heroic US Airways pilot.

Education: The 300+ education sessions focused on the *can't-wait* issues, such as ARRA, meaningful use, compliance, EMR adoption, privacy and security, quality, patient safety and much more. Pre-conference symposia featured a healthcare-specific curriculum where leaders and colleagues could dive deep into the most compelling subjects related to their personal needs and interests. New at HIMSS10, the Innovation Technology Pavilion showcased the very latest point of care technology to clinicians. The Medical Banking Institute featured senior-level discussions on designing the healthcare financial network of the future.

Exhibits: The exhibit floor exploded with knowledge and technology as 934 exhibiting companies demonstrated cutting-edge solutions applied to a changing healthcare environment.

Interoperability Showcase: The 27,300 sq.-ft. Interoperability Showcase had 84 participating organizations and attracted 5,000 visitors.

Media at HIMSS10: HIMSS10 generated 798 stories, reaching an audience of approximately 65 million people. This year, there were 146 reporters on-site at the conference. Of the 146 media representatives on-site, there were 80 new reporters attending HIMSS for the first time.

The majority of media on-site at HIMSS10 (97 percent) generated online media coverage. The remaining 3 percent represented regional broadcast, e-newsletters and print trade media placements. Of the total online media coverage, HIMSS10 stories ran primarily in online print editions of newspapers and trade publications and news websites (sites that provide continuous news feeds) such as MedicExchange.com, TMCNet.com, and AuntMinnie.com. In addition, the

"Meet the Bloggers" event attracted many bloggers and social media writers to HIMSS10 generating 19 percent of online media coverage.

Over the past three years, we have seen an increase in stories about the Annual HIMSS Conference & Exhibition with 798 stories in 2010. This increase in media coverage is the result of the influx of online media. Reporters can now run stories, more frequently while on-site than in past years. Although the number of placements has increased the past three years, the large number of blog and website coverage aimed at reaching a much more targeted niche audience has lowered the overall audience numbers. In addition, the Google Health announcement in 2008 resulted in significant media coverage and higher than average audience figures.

Social Media: HIMSS engaged with over 36,000 health IT professionals during FY10. The HIMSS social media activity also resulted in 11,000 mentions of HIMSS from Feb. 25 to March 10, 2010, around HIMSS10.

FY10 Milestones:
- Established HIMSS Social Media Guidelines for staff usage of social media
- Created strategic social media components for marketing and communications plans for HIMSS initiatives
- HIMSS is recognized for social media use at HIMSS10 (see blog posts: http://tinyurl.com/2wbhe5f, http://tinyurl.com/39krz8b, http://tinyurl.com/3522m8m)
- Established HIMSS' Groups on LinkedIn, Facebook and Twitter as the primary vehicles for HIMSS10 attendees to connect prior, during and after annual conference
- Hosted a series of well-attended social media webinars for HIMSS Staff, HIMSS Chapter Leaders and HIMSS10 Exhibitors

Government Relations

Comments and Testimony: Board of Directors' comments were submitted on six federal health IT regulations. Joyce Sensmeier and Dr. Martin Harris wrote Congressional testimony presented by Joyce Sensmeier. NCVHS testimony was provided by John Casillas and Joe Miller. Comments were submitted on 14 federal rules/Notices of Public Rule Making (NPRMs)/RFIs in 2010.

National Health IT Week/HIMSS Policy Summit: Health IT industry and HIMSS members were provided a critical venue to convene together in the 5th Annual National Health IT Week/9th Annual HIMSS Policy Summit, which attracted a record 189 partners and more than 225 in-person attendees. More than 300 separate Capitol Hill visits with over 100 elected officials and 200 staff members occurred. HIMSS members were given opportunities to support collaborative responses to four key Department of Health and Human Services (HHS) regulations: meaningful use, standards implementation, certification, and HIPAA modifications.

Board and Committee Appointments: Dave Roberts, HIMSS vice president, government relations, was selected to serve on the Cal eConnect Business Advisory Group; University of California. San Diego, Extension Center Health IT Program Advisory Board; and the Coleman University Health IT Advisory Board. Tom Leary, HIMSS senior director, federal affairs, was selected to serve on the BNA Health IT Advisory Board and the George Washington University's HITECH Advisory Board. Rich Hodge, HIMSS senior director, congressional affairs, was selected to serve on iHealth Alliance EHR Advisory Board. HIMSS members were also appointed to the Department of Health and Human Services Health IT Policy Committee and to the department's Health IT Standards Committee.

Regional Affairs
- Forty-one Regional Extension Centers joined HIMSS.
- The Military Health System was signed as an HIMSS organizational affiliate member. The HIMSS board approved the launch of the Life Sciences and Patient-Centered Payer initiatives, with 18-month business plans and new "landing pages" created.
- The HIMSS Diversity Business Roundtable and HIMSS Public Policy Affiliate Roundtable were launched.
- HIMSS Government Services contracts expanded to include five customers.

Launch of the HIMSS State HIT Dashboard: The HIMSS State HIT Dashboard is a comprehensive, easy-to-read visual interface tracking key initiatives including Regional Extension Centers, HIMSS Davies Award recipients, Health Information Exchanges, state legislation and HIMSS chapters. This online, free, publicly-available resource gives healthcare professionals, policy makers and stakeholders a snapshot of major health information technology initiatives underway across the nation. HIMSS designed the dashboard as an easy and comprehensive online tool for timely access to credible and comprehensive information about relevant health IT programs and initiatives across the United States and its territories.

State Legislation: More than 600 bills with provisions relating to health IT were introduced in state legislatures. These bills, as well as any governor-sponsored activity, were tracked by HIMSS members using CQ State Track, the web-based tool that provides links to the legislation. In addition, Chapter Advocacy Roundtable Members received email notifications.

State Government: Eighty-one Chapter Advocates from 46 chapters covering 68 U.S. congressional districts were active. Some 79 percent of chapters engaged in measurable advocacy activity, with 34 Advocates/Chapters achieving recognition. Six state officials attended HIMSS10. Chapter advocates supported President Obama's call for healthcare reform through chapter activities.

Chapter Advocates led 10 State Health IT Days including:
- Michigan – Sept. 2009
- Colorado - 01/20/10
- Virginia - 2/04/10
- Iowa - 2/04/10
- Maryland - 2/17/10

- Kentucky - 2/23/10
- Pennsylvania - 4/20/10
- Ohio - 4/29/10
- California - 4/29/10
- North Carolina - 5/18/10

Government Health IT: This June 2010 conference was projected to attract more than 450 registrants, 13 exhibitors and six CPHIMS review course/exam registrations.

Healthcare Information Services

- Eleven podcasts were recorded and posted to the HIMSS website by the Physician Community.
- The Clinical Decision Support Wiki was launched, and "*Stories of Success! Leveraging Health IT, Improving Quality & Safety"* published.
- HIMSS placed first at the American College of Chest Physicians (ACCP) CHEST exhibit in e-health and telemedicine.
- The first Ambulatory Professional Practicum was held.
- The Management Engineering/Process Improvement (ME/PI) Community launched.
- The Executive Dashboard Webinar Series began.

Professional Development

Education: The HIMSS eLearning Academy, ARRA Webinar Series, Government Health IT (GHIT) Webinar Series, and GHIT Conference were initiated. The University of California, Berkeley, externship collaboration was expanded. HIMSS advanced to tier two in the Georgetown University Medical School Service Learning Initiative. The Secondary Use of Data Symposium was created. Ten Institute for e-Health Policy seminars on timely health IT topics were hosted on Capitol Hill.

Healthcare Information Services: HIMSS merged with Life Sciences Information Technology (LSIT). MU OneSource was launched. HIMSS was named a member of the National Priorities Partnership Collaborative.

Professional Development Team: HIMSS was awarded a sub-contract for Agency for Healthcare Research and Quality (AHRQ) D2-RFTO#5 Training Support, and also was a sub-grantee along with Bellevue College from the National Science Foundation to create the Certified Specialist in Healthcare Information and Management Systems (CSHIMS) certification**.** A collaborative agreement to share educational content was established with the National eHealth Collaborative. HIMSS began to serve as one of four co-sponsors of the GetReady5010 industry initiative. HIMSS was awarded the Project Management Institute's Registered Education Provider (REP) status globally**,** and was appointed to serve on the ONC Competency Examination Advisory Board.

Clinical Informatics: HIMSS launched *Clinical Informatics Insights* as the industry's multidisciplinary resource for timely and comprehensive articles focused on informatics. First-year Clinical Engineering and IT Community deliverables to develop an IT infrastructure to support medical devices were published. A unified voice for nursing professionals was amplified, with the Alliance for Nursing Informatics testifying to public and private sector organizations including the Institutes of Medicine, National eHealth Collaborative, National Committee on Vital and Health Statistics, Robert Wood Johnson Foundation and Office of the National Coordinator. A new community for registered dietitians was developed in collaboration with the American Dietetic Association (ADA). The Joint Public Health Informatics Task Force collaboration was initiated.

Privacy and Security: HIMSS published the 3rd Annual HIMSS Security Survey with Medical Group Management Association (MGMA) partnership and Intel sponsorship. A webinar presenting the survey results was conducted as part of the HIMSS November 2010 Virtual Conference. A white paper on patient identity integrity was published in December 2009.

New Books Published:

HIMSS Dictionary of Healthcare Information Technology Terms, Acronyms and Organizations, Second Edition. HIMSS

Information Security in Healthcare: Managing Risk. Terrell W. Herzig, MSHI, CISSP, Editor

Change Management Strategies for an Effective EMR Implementation. Claire McCarthy, MA, and Douglas Eastman, PhD, with David E. Garets, Contributing Editor

Introduction to Healthcare Information Enabling Technologies. Raymond A. Gensinger, Jr., MD, CPHIMS, FHIMSS

Nursing and Informatics for the 21st Century: An International Look at Practice, Education and EHR Trends, *Second Edition.* Charlotte Weaver, PhD, MSPH, RN, FHIMSS, Connie White Delaney, PhD, RN, FAAN, FACMI, Patrick Weber, MA, RN, and Robyn L. Carr, RGON, Editors

2010 Annual Report of the U.S. Hospital IT Market. HIMSS/HIMSS Analytics ™ LLC

Make I.T. Known: Marketing Strategies and Case Studies in the Healthcare Environment. Charles E. Christian, FCHIME, FHIMSS, Judith A. Kirby, CPC, and Steven R. Bennett, MA

HIMSS Analytics
2010 HIMSS Analytics Research

- 2010 Annual Report of the US Hospital IT Market;
- Fifth Annual HIMSS Analytics Essentials of the US Hospital IT Market;

- Canadian Healthcare Insights;
- Hospitals Embrace E-Procurement for Supply Chain Management – Enterprise Integration is the Next Challenge, February 2010;
- RAC Audits: IS Your Organization Ready?, February 2010;
- 2010 HIMSS Analytics Report, Security of Patient Data, April 2010;
- Clinical Analytics: Can Organizations Maximize Clinical Data, June 2010; and
- Medical Devices Landscape: Current and Future Adoption, Integration with EMRs and Connectivity, December 2010

HIMSS Global

- The HIMSS Middle East Leadership Summit was held from November 15-17, 2009, in Muscat, Oman.

- The World of Health IT and eHealth Week Conference and Exhibition was held from March 15-18, 2010, in Barcelona, Spain.

- The HIMSS Asia Pacific Exposition was held from May 26-28, 2010, in Beijing, China.

- The HIMSS Europe Leadership Summit 2010 was held in Rome, Italy.

2011 – HIMSS Celebrates 50 Years
July 2010 through June 2011

After a five-decade evolution, HIMSS now stands as the largest not-for-profit membership association in the U.S. dedicated to the cause of transforming healthcare through the use of IT and management systems. Through the combined efforts of its more than 30,000 individual, 470 corporate and 85 not-for-profit affiliate members, the Society has become a global leader in health IT and management systems with offices in Chicago; Ann Arbor, Mich.; Arlington, Va.; Brussels, Leipzig and Singapore.

Founded in October 1961 as the Hospital Management Systems Society, or HMSS, the Society held its first conference in 1962 in conjunction with the American Hospital Association Advanced Institute on Methods Improvement. The conference was held in Baltimore, Md. with a total of 54 members on the HMSS roster. In 1986, HMSS changed its name to the Healthcare Information and Management Systems Society, or HIMSS, to reflect its inclusion of information systems and telecommunications professionals among its members. Read more about the HIMSS 50th anniversary celebration.

Awards
HIMSS Honors 2010 Award and Scholarship Recipients: Recognizing outstanding contributions to HIMSS and the healthcare industry, HIMSS named its 2010 award and

scholarship recipients. The HIMSS Foundation and five HIMSS chapters provided 11 scholarships to students enrolled in health IT and management systems degree programs. All award and scholarship recipients were honored at the HIMSS Awards and Recognition Banquet on Feb. 22, 2011, at the Rosen Shingle Creek in Orlando, during the 2011 Annual HIMSS Conference & Exhibition.

Publications Award
Book of the Year Award
Change Management Strategies for an Effective EMR Implementation
By Claire McCarthy, MA, and Douglas Eastman, PhD

Service Awards
Distinguished Fellows Service Award
Barry T. Ross, LFHIMSS

Outstanding SIG Member Leadership Award
Marc Newman, MBA, LFHIMSS, and Elyse Nielsen, PMP, CPHIMS
Chairs, Project Management Special Interest Group

John A. Page Outstanding Service Award
Dixie Baker, FHIMSS

Founders Leadership Award
Lesley King, FHIMSS

Chapter Innovation Award
Large Chapter Grand Prize: Southern California Chapter
Large Chapter Runner-up: Northern California Chapter
Small Chapter Grand Prize: Wisconsin Dairyland Chapter.
Small Chapter Runner-up: Arizona Chapter

Chapter Leader Award
Salvatore Volpe, MD

Industry Awards
Nursing Informatics Leadership Award
Elizabeth Johnson, MS, RN-C, CPHIMS, FHIMSS

Physician IT Leadership Award
Michael H. Zaroukian, MD, PhD, FACP, FHIMSS

ACCE/HIMSS Excellence in Clinical Engineering and Information Technology Synergies Award
Stephen Grimes, FACCE, FAIME, FHIMSS

SHS/HIMSS Excellence in Healthcare Management Engineering/Process Improvement Award
Frank Overfelt, FACHE, LFHIMSS

CHIME/HIMSS John E. Gall Jr. CIO of the Year
Charles Christian, FCHIME, FHIMSS

Foundation Supported Scholarships
Healthcare Information Management Systems Undergraduate Scholarship
Jamari Rashaad Flowers
Florida A&M University

Master's Scholarship
Bella Zaghi
University of California, Los Angeles

PhD Scholarship
Mustafa Ozkaynak
University of Wisconsin, Madison

Richard P. Covert, PhD, FHIMSS, Scholarship for Management Systems
Shayna Brownstein
Georgia Institute of Technology

Chapter Supported Scholarships
Delaware Valley Chapter Scholarship
Jennifer McMaster, MBA
University of Medicine and Dentistry of New Jersey

South Florida Chapter Scholarship
Mark A. Carnemolla, MS
Nova Southeastern University

New England HIMSS Dvora Brodie Chapter Scholarship
Jordan Peck, MS
Massachusetts Institute of Technology

New York State Chapter Scholarships
Daniel M. Stein, MD
Columbia University

Vanessa Cheng
New York University

Northern California Chapter Scholarships

Caitlin M. Lang
University of California, Berkeley

Eric Paul Duran
Sacramento State University

The 2010 Nicholas E. Davies Awards of Excellence
Since 1994, the HIMSS Davies Awards of Excellence have recognized management, functionality, technology and value - the pillars of health IT success. The six winners within the 2010 HIMSS Davies Awards four categories implemented electronic health records as an aid in delivering quality care to the patients and populations they serve.

HIMSS Davies Ambulatory Award
Miramont Family Medicine – Ft. Collins, Colo.
The Diabetes Center – Ocean Springs, Miss.

HIMSS Davies Community Health Award
Open Door Family Medical Center – Ossining, NY

HIMSS Davies Public Health Award
Wisconsin Division of Public Health's Wisconsin Immunization Registry (WIR) – Madison, Wis.

HIMSS Davies Organizational Award
Sentara Health System – Norfolk, Va.
Nemours - Wilmington, Del.

2011 Annual HIMSS Conference and Exhibition
Attendance Surpasses Previous Conferences: A record-breaking 31,225 attendees descended on HIMSS11, the largest IT conference and exhibition in the U.S. Total professional registration also increased with 14,639 attending the Orlando meeting, compared to 13,672 registrants in 2010. HIMSS11 featured 400+ educational sessions and 1,032 exhibiting organizations showcasing their latest innovations and products in more than 456,770 square feet of exhibit space.

Keynote presenters included:
- **Robert Reich**, former Secretary of Labor and member of President Obama's economic transition board;
- **The Honorable Kathleen Sebelius**, Secretary, Department of Health and Human Services;
- **David Blumenthal, MD, MPP**, National Coordinator for Health Information Technology, Department of Health and Human Services;
- **Michael J. Fox**, Actor and Founder of the Michael J. Fox Foundation for Parkinson's Research; and
- **Richard Boyd,** Chief Architect for Lockheed Martin Virtual World Labs.

HIMSS11 Education: There was 8 percent growth in professional attendees, with a total of 14,715 attending HIMSS11. More than 3,243 attended symposia and workshops. There were 259 general education sessions, 44 communities' sessions, and seven new pre-conference and two new poster session events (physicians/nurses). Physician executives were identified as a new strategic audience.

Hot topics included meaningful use standards, certification and criteria; American Recovery and Reinvestment Act (ARRA) and government contributions to advancing health IT; the need for nationwide electronic health records; and health IT privacy and security practices. Pre-conference symposia included 5010 and ICD-10, health information exchanges (HIE), physicians' IT and more.

Exhibits and Sponsorships: Projected year-end total sponsorship revenues were $4,026,650, an increase of 28 percent over FY10. Year-end exhibit revenues of $11,925,350 represent an increase of 14 percent over FY10. There were 1,032 total exhibitors, with a record number 316 first-time exhibitors.

Leading from the Future: A Thought Leadership Event on ACOs: This conference offered six presentations on Accountable Care Organizations (ACOs), giving provider executives the chance to learn about the issues – and IT ramifications – connected to the transformation of accountable care. Topics covered included ACO qualification criteria, payment methodologies and incentives, and performance measurement and reporting. Presenters included executives at provider organizations who have made the transition to accountable care.

HIMSS11 Interoperability Showcase: More than 4,000 HIMSS11 conference attendees visited the Interoperability Showcase – an exhibit providing a full landscape of health IT solutions, live demonstrations, and educational opportunities. Connecting thousands of health IT buyers and end-users, the 42,000 sq.-ft. showcase included more than 100 clinical information systems demonstrating standards-based interoperability. More than 120 organizations participated in the showcase, including health IT companies and government agencies /federal partners. Five international delegations toured the showcase. There were electronic health record systems in the connected demonstration and 68 educational sessions presented in theaters. A new feature – *Live Exchange* – demonstrated the benefits of interoperability.

Informative Sessions and New, Innovative Technology: The HIMSS Medical Banking Project hosted the second G7 roundtable discussion at the 9th National Medical Banking Institute held during HIMSS11 and announced its collaboration with the World Bank. This roundtable examined the new federal effort to implement operating rules in conjunction with HIPAA-mandated electronic health data transactions.

The HIMSS Latino Initiative: This new initiative identified information technology solutions to improve the quality of healthcare, increase access to care, and reduce the cost of healthcare among the United States' growing Hispanic population. Estimated at 16 percent today, the Latino/Hispanic population is estimated to be 30 percent by the year 2050. During HIMSS11, the HIMSS Latino Initiative hosted a complimentary program featuring a keynote speech by former

U.S. Surgeon General Dr. Antonia Novello, panel discussions on health disparities and barriers to health IT adoption in the Hispanic community, and a networking reception.

A panel discussion among industry leaders included David R. Hunt, MD, FACS, chief medical officer in the Office of the National Coordinator for Health Information Technology at the Department of Health and Human Services. Other panel discussions included topics such as health, health disparities, and health IT adoption in the Hispanic community. Luis Belen, president and CEO of VWCGlobal and founder, president and CEO at Medic Success, and Danny Vargas, president of VARCom Solutions, were named co-chairs of the Latino Initiative Workgroup by HIMSS board chair C. Martin Harris, MD, MBA.

HIT X.0: Beyond the Edge: Throughout HIMSS11, this new conference offered sessions on emerging technologies, innovation in IT and other advances, all focused on helping attendees learn more about the future of patient care. Twelve interactive sessions included panel discussions, a contest to identify the most innovative technology, and an agile programming demonstration.

Celebrating its 50th Year, HIMSS Honors Health IT Contributors: HIMSS celebrated its 50th anniversary by honoring 50 health IT professionals, academicians and others with the 50 in 50 Award, which recognized memorable achievements in the healthcare information technology and management systems field and contributions to HIMSS or former organizations now part of HIMSS. Ten individuals for each of the five decades since the founding of the organization in 1961 were honored.

HIMSS 50 in 50 Award Winners
1960s
Karl G. Bartscht, FAAHC, CHE
HIMSS Board Member
Retired

Addison C. Bennett
HIMSS Charter Member and HIMSS President, 1969, 1970
Retired

Edward H. Burnet
HIMSS Charter Member and President, 1965
Retired

William T. Delamar
HIMSS Charter Member and HIMSS President, 1964
Retired

George L. Deschambeau
HIMSS Charter Member and HIMSS President, 1963, 1967
Deceased, 1990

John R. Freeman, PhD, LFHIMSS
President, Arabian Careers Limited
HIMSS Charter Member and HIMSS President, 1968

Edward J. Gerner
HIMSS Charter Member and First HIMSS President, 1961-62
Deceased, 2007

Lillian M. Gilbreth, PhD
HIMSS Honorary Member
Deceased, 1972

Fred W. Green
HIMSS Charter Member and HIMSS President, 1966
Retired

Harold E. Smalley
HIMSS Founder and Charter Member
HIMSS Executive Director, 1961-65
Deceased, 1994

1970s
Barton R. Burkhalter, PhD
Impact Evaluation Advisor, Management Sciences for Health
HIMSS President, 1974

Richard P. Covert, PhD, LFHIMSS
HIMSS Director, 1978-1991
Retired

Louis E. Freund, PhD
Professor, Department of Industrial & Systems Engineering
Director, Graduate Program in Human Factors/Ergonomics
San José State University

John E. Gall, Jr.
Health IT pioneer at El Camino Hospital in the 1960s
Deceased, 2001

Alan J. Goldberg, FACHE, FHIMSS
President, Applied Management Systems
HIMSS President, 1979

Larry D. Grandia, FCHIME, LFHIMSS

Board Member, PatientSafe Solutions, Inc.
Retired

Patric E. Ludwig
HIMSS President, 1971
Deceased, 1996
Justin A. Myrick, PhD, LFHIMSS
HIMSS President, 1982
Retired

Barry T. Ross, LFHIMSS, MBA-HSA, MSIE, DSHS
Examiner, Malcolm Baldrige National Quality Award
HIMSS President, 1984

Richard L. Rydell, MBA, FACHE, LFHIMSS
Chief Executive Officer, Association of Medical Directors of Information Systems
HIMSS President, 1990

1980s
Nancy E. Aldrich, FASHE, FHIMSS
HIMSS President, 1995-96
Retired

Bill W. Childs
Vice President, National Sales & Ambassador, Vitalize Consulting Solutions, Inc.

Richard Correll, LFHIMSS
President and CEO, College of Healthcare Information Management Executives
HIMSS President, 1983

Robert J. Durej, PMP, CPHIMS, LFHIMSS
Principal, Productivity Leadership Group Inc.
HIMSS President, 1983

Robert D. Gunn, LFHIMSS
President, BG Consulting
HIMSS President, 1986

Dennis P. L'Heureux , MS, CPHIMS, LFHIMSS
Senior Vice President and CIO, Rockford Health System
HIMSS President, 1992

Peter J. Ryerson, LFHIMSS
President, Ryerson Healthcare Consultants, LLC
HIMSS President, 1985

Ned J. Simpson, LFHIMSS
Healthcare Systems Program Director, AdvanTech, Inc.
HIMSS President, 1989

Mark Tepping, LFHIMSS
Retired

Pam Wilcox Arlotto, MBA, FHIMSS
President and CEO, Maestro Strategies, LLC
HIMSS President, 1987

1990s
Wayne Anderson, LFHIMSS
President, First Coast Management Engineering, Inc.
HIMSS Board Member

Marion J. Ball, EdD, FAAN, FCHIME, FHIMSS, FACMI
Senior Advisor, Healthcare & Life Sciences Institute, IBM Research
Professor Emerita, Johns Hopkins School of Nursing
HIMSS Vice Chair, 2007

Jeffery A. Cooper, FHIMSS
Vice President and Chief Operating Officer, Henry Medical Center
HIMSS Chair, 1998

Lawrence E. Dux, MBA, CPHIMS, FHIMSS
Director, Clinical Information Systems and Process Improvement
Froedtert Health Community Memorial Hospital
HIMSS Co-Chair, 2004

John P. Glaser, PhD, FACMI, FCHIME, FHIMSS
CEO, Siemens Health Services Division
HIMSS President, 1991

Ivo D. Nelson, FHIMSS
Chairman, Encore Health Resources
HIMSS Board Member

Rosemary Nelson, MSN, MA, RN-BC, CPHIMS, FHIMSS
President and CEO, MDM Strategies, Inc.
HIMSS Board Member

John A. Page, LFHIMSS
Chair and Speaker, Vistage International, Inc.

HIMSS Executive Director, 1991-1999

A. Charles Platt, FHIMSS, FACHE, DSHS, CMRP
Assistant Director, Supply Chain Services, The Medical Center of Central Georgia

William C. Reed, FHIMSS, FCHIME
Healthcare Sector Lead, Bloomberg Government
HIMSS President, 1993

2000s
William Braithwaite, MD, PhD, FACMI, FHL7
Chief Medical Officer, Anakam, an Equifax company

Judith R. Faulkner
CEO, Epic Systems Corporation
HIMSS Advisory Board Member

Kent Gale
Founder, KLAS Enterprises

David E. Garets, FHIMSS
Executive Director, Healthcare IT Program Suite, The Advisory Board Company
HIMSS Co-Chair, 2004

John D. Halamka, MD, MS
Chief Information Officer, Beth Israel Deaconess Medical Center and Harvard Medical School

Liz Johnson, MS, RN-C, CPHIMS, FHIMSS
Vice President, Applied Clinical Informatics, Tenet Healthcare Corporation
HIMSS Vice Chair, 2009-10

H. Stephen Lieber, CAE
President and Chief Executive Officer, HIMSS, 2000-present

Blackford Middleton, MD, MPH, MSc, FHIMSS
Corporate Director of Clinical Informatics Research & Development, Partners Healthcare
Systems, Inc.
HIMSS Chair, 2006

Neal Patterson
Chairman, CEO and President, Cerner Corporation

David W. Roberts, MPA, FHIMSS
Vice President, Government Relations, HIMSS, 2002-present

Government Relations

Public Policy Principles: New 2011–2012 Public Policy Principles were developed. In addition, Government Relations created a Call for Action report.

The most current HIMSS Public Policy Principles also appear in Appendix IX of this document.

Congressional Affairs: HIMSS continue its strong outreach to Congress, with its members and staff completing 62+ visits to Capitol Hill and reviewing 25+ pieces of legislation. Five Congressional staff attended HIMSS11 and four congressional staff participated in a Congressional panel session with over 400 attendees. There was a 115 percent increase in the *Health IT Policy Update* subscriber base, with the number of subscribers going up to 4,739. The Patient Identity Integrity Solution Coalition was reactivated and grew to seven new members, with four potential new members.

Federal Affairs: The membership of the HIMSS Federal Health Community grew to more than 800 members. Secretary of Health and Human Services Kathleen Sebelius, CMS Administrator Dr. Don Berwick, U.S. Surgeon General Dr. Regina Benjamin, and National Coordinator for Health IT Dr. David Blumenthal all actively participated and spoke at HIMSS11, where 10 Federal agencies also participated in the Interoperability Showcase. HIMSS engaged with 15 Federal departments and agencies and contributed 11 responses to ARRA-related public comment periods. Seven federal agencies now participate in the HIMSS Organizational Affiliate Program.

State Government: Most U.S. chapters (41 of 50) engaged in measurable advocacy activity through the work of 80 chapter advocates and others. During eight state Health IT Advocacy Days, about 500 HIMSS members met with 700 state legislators. Forty-one individual chapter advocates and chapters achieved recognition. Eleven state officials attended HIMSS11 and four webinars on state advocacy were produced.

Regional Extension Centers: Twelve RECs joined HIMSS as affiliate members. HIMSS connected with all RECs to disseminate tools and resources and to understand and respond to their needs.

Healthcare Information Services

New Initiative: Life Sciences Information Technology (LSIT) was welcomed to HIMSS.

Ambulatory Information Systems: More than 155 volunteers and participants contributed to this area through activities such as nine ambulatory roundtables, nine public comment responses, and eight CDW Meaningful Use Thought Leadership Series events for medical practices. Twenty-nine new tools and resources were created in this area, and there was a 37 percent increase in *The Digital Office* subscribers, now totaling 3,473.

Enterprise Information Systems (including Change Management, Legal & Usability): More than 160 volunteers participated in this area through activities such as 38 10-Minute "HIMSS Updates," 21 new tools, 18 educational sessions, six public comment responses and guidance,

and three certification testimony and federal public meetings.

Management Engineering/Process Improvement (ME/PI) Community: There were 6,496 volunteers engaged in this area. A total of 1,611 attended three Business Intelligence webinars. There were 22 new tools developed, 19 10-Minute "HIMSS Updates," nine educational sessions, four public comment responses, three presentations at HIMSS11, and two newsletters.

Physician Community: For the Physician Community, there were 10 "Hot Topics" podcasts and two virtual brown-page lunch webcasts. There were also six public comment responses. The Physician Community also provided substantive input to HIMSS Education and organized poster sessions and the Physician IT Symposium at HIMSS11.

Patient Safety and Quality Outcomes: HIMSS was an active member of the National Quality Forum and was accepted into the National Priorities Partnership. HIMSS launched its Quality 101 website and Clinical Decision Support (CDS) 101 content. HIMSS also posted CDS meaningful use FAQs, a medical device meaningful use matrix, and the Complex Systems Resource Guide. There were 13 "stories of success" case studies developed, including three having to do with meaningful use. Seven public comment responses were made.

Professional Development

HIMSS eLearning Academy: There were 727 sessions available, including 25+ packages of specialized content and 20 courses. The average registration was 977 and the average attendance 661.There were 13 webinars on the American Recovery and Reinvestment Act and meaningful use, 15 education sessions at the June VCE, and 12 educational sessions at the November VCE.

CPHIMS: There were 530 new candidate applications, bringing to 2,865 the total applications since 2002. There was a 73.7 percent renewal rate.

Virtual Conference and Expo (VCE): There were 3,083 registrants and 2,072 attendees who made a total of 16,308 booth visits to 31 exhibitors and made 3,959 requests for documents. The average number of hours of an attendee visit was 3.16. 359 Chats averaged 2.29 minutes each.

Regional Affairs

Health Information Exchange: The HIMSS11 HIE Symposium achieved 95 percent satisfaction among attendees, up from 85 percent at HIMSS10. There were an average of 2,525 monthly visitors to the HIE State Dashboard. More than 300 volunteers support HIE content activities and members provided substantive input to education and meaningful use materials. HIELights subscriptions have increased by 61 percent to 3,287. Five HIE Roundtable webinars average 112 attendees. There were 11 HIE-related public comment responses. The HIE Toolkit deployed with 10 new resources. A new HIE book, *The HIE Formation Guide: The Authoritative Guide for Planning and Forming an HIE in Your State, Region or Community,* was published in 2011.

Affiliates and Strategic Relationships: HIMSS had 120 affiliate members and 88 HIMSS Latino Community members. HIMSS organized nine MU Dinner Series events in collaboration

with CDW Healthcare, HIMSS chapters and Regional Extension Centers. HIMSS also organized one meaningful use workshop for the Medical Group Management Association's New York chapter. HIMSS also continued to develop long-term collaborative relationships with non-profits, foundations, health providers, government, academia, and other entities.

Community Affiliations

Individual Memberships: As of May 25, 2011, HIMSS had 38,927 individual memberships and 38,135 paid individual memberships – a 24 percent increase in total individual memberships from June 2010 to May 2011.

Communities: There were 2,800 members engaged in 13 Special Interest Groups, 500 volunteers on 55 Task Forces & Work Groups, 180 appointees to 15 HIMSS Committees, 290 volunteers on 9 Roundtables, and 9,500+ Members participating in a Community of Profession Corporate Membership.

HIMSS Chapters: There were 53 HIMSS chapters, with 37,756 members from 48 states and Canada participating. There were more than 700 members in chapter leadership positions, with 626 having received chapter leadership training.

Corporate Membership: HIMSS welcomed 530 corporate members by year-end and 140 new members by year-end – a 10 percent growth over FY10. The average retention rate was 83 percent.

Patient-Centered Payer/Life Sciences: HIMSS members identifying as working in the life sciences increased 51.7 percent; there was an 18.3 percent increase among those identifying as working for payers. At HIMSS11, there was an increase of 53.7 percent among life sciences attendees and 32.0 percent among payers attendees, who included the CEO and CIO of UnitedHealthcare. There were more than 100 attendees to two new events for life sciences and payers at HIMSS11, and more than 110 attendees (30 percent over revenue goal) at a new symposium with a payer and life sciences focus. At a combined 12 payer and life sciences roundtable meetings, there was an average attendance of 55.

EHRA: There were 44 HIMSS corporate members. The EHRA Principles and Positions Statement was completed, as well as the EHRA Revised Operating Policy. The collaboration between EHRA and Regional Extension Centers was publicly launched on May 11. Comments were submitted on President's Council of Advisors on Science and Technology (PCSTA) Stage 2 meaningful use objectives.

Organizational Affiliates: There were 237 Organizational Affiliate (OA) clients on May 27, surpassing the original goal of 220, with a 95 percent renewal rate. There were also 13,400 members through the OA program on May 27 – a net growth of 5,300 members. OA accounts for 35 percent of HIMSS individual members. The overall satisfaction rating of the program is 8.21 on a scale of 10. Some of the 237 OA clients are "non-traditional" and include state health departments, health plans, CMS, HRSA, CDC, Military & Indian Health Services, Regional Extension Centers, and long-term and behavioral healthcare organizations.

Senior IT Executives (SITE) Community of Profession: A program developed in collaboration with the College of Healthcare Information Management Executives (CHIME), SITE offered a full year of collaboration and marketing in FY11. SITE continued at HIMSS11, with activities similar to HIMSS10 including Roundtables, a VIP Breakfast, Interoperability Showcase Tours, and VIP Lounge access. There is a SITE webpage at himss.org and a SITE community on LinkedIn. The SITE Community had four sponsors in FY11. SITE's webinar series included discussions of key topics such as accountable care organizations, Information Technology Implementation Library (ITIL) implementation, meaningful use stage 1, ICD-10 conversion, business associate agreements, and more.

Leaders & Innovators Initiative: HIMSS introduced the Leaders & Innovators initiative, a community of C-suite leaders in healthcare. This year-round initiative offers members access to HIMSS research, networking and ongoing education, at separate events and at the annual conference. The group held its first meeting in November 2011 at Amelia Island, Florida, on Nov. 14-16, 2011.

Business-Centered Systems
The IDC-10 PlayBook: Forty-five executives attended a HIMSS G7 meeting to organize the ICD-10 PlayBook. These executives came from associations including the American Association of Healthcare Administrative Management (AAHAM), AHIMA, AMA, MGMA, Workgroup for Electronic Data Interchange (WEDI), X12, and AHIP; providers including LifePoint, Vanderbilt, and HCA; health plans including Aetna, Cigna, and Healthcare Service Corp; and corporations including Wells Fargo, BNY Mellon, US Bank, Emdeon, Ingenix, and ExperisIT. An ICD-10 PlayBook webinar launching this new resource on May 25, 2011, attracted 1,886 registrants. The ICD-10 Workgroup has now approved 145+ documents from 22 organizations that are now a part of resource. Version 2 of the PlayBook was slated for fall. Four primary sponsors were secured.

HIMSS G7: The World Bank Collaboration agreement was executed to support the HIMSS G7 thought leadership platform. Two corporate sponsorships – with Kaiser Permanente and Ingenix (Optum) – were secured. The sponsorships were both for $25,000 per year for 3 years. Three HIMSS G7 Advisory Reports have been issued:
* The Intersection Between Accountable Care Organizations and the Healthcare Financial Network of the Future
* Exploring the Odyssey of Real Times Claim Adjudication of Health Claims
* The ICD-10 PlayBook

Other Activities:
* 5,500+ increase in circulation of new *BusinessEdge* e-newsletter through unification with MBProject
* 16,000+ registrants for GetReady5010.org with lead organizer Joe Miller as HIMSS volunteer and partnership/hosting by HIMSS Professional Development
* Two invitations to testify before NCVHS on medical banking issues
* Major policy paper published by the Electronic Healthcare Network Accreditation Commission (EHNAC), WEDI, HIMSS, and Electronic Payments Association (NACHA)

on HIPAA/HITECH impact on banks. A follow-on meeting with OCR was arranged by HIMSS Government Relations and in consultation with HIMSS privacy and security lead Lisa Gallagher to outline policy issues
- Key invitations included an ONC panel on healthcare disparities moderated by Dr. Hunt at the HIMSS11 Latino Initiative and a national presentation to Beacon Communities on the intersection of medical banking and HIEs

Corporate Services: Professional Resources

Publications: Seven new books were published and 34 books by other associations and publishers were distributed.

New Books Published:

2011 Annual Report of the U.S. Hospital IT Market. HIMSS/HIMSS Analytics ™ LLC
The Project Manager's Guide to Healthcare Information Technology Implementation. Sue M. Houston, MBA, RN-BC, PMP, CPHIMS

The Health Information Exchange Formation Guide: The Authoritative Guide for Planning and Forming an HIE in Your State, Region or Community. Laura Kolkman, RN, MS, FHIMSS, and Bob Brown

Go-Live: Smart Strategies from Davies Award-Winning EHR Implementations. Margaret Schulte, DBA, FACHE, CPHIMS, Editor

Medical Informatics: An Executive Primer, Second Edition. Ken Ong, MD, MPH, Editor

Complete Guide and Toolkit to Successful EHR Adoption. Jeffrey Daigrepont, EFMP, CAPPM, and Debra McGrath, CRNP

The CMIO Survival Guide: A Handbook for Chief Medical Information Officers and Those Who Hire Them. William F. Bria, MD, FCCP, FHIMSS, and Richard L. Rydell, MBA, FACHE, LFHIMSS, Editors

Communications: Communications posted 157 videos on the HIMSS YouTube channel. On the HIMSS blog, there were 139 posts and 42,521 unique views. The HIMSS Social Media Center launched at HIMSS11. There was significant growth in HIMSS' social networking communities:
- LinkedIn: 45,500 (up 160%) – 800 discussions in last 3 months
- Facebook: 4,000 (up 200%) – Members span 20+ countries
- Twitter: 9,300 (up 194%) – 638 lists (HIMSS is a strong influencer)

Media Relations: Media coverage reached 51.2 million through 802 articles at HIMSS11. There were 151 media on-site at HIMSS11, with 34 members of the media attending for the first-time. Media relations managed 201 media calls with 43 publications.

Social Media: In FY11, social media became a strategic vehicle to promote and further HIMSS' cause of bettering healthcare through technology. HIMSS is using social media to convene and engage with the health IT community; grow awareness around initiatives, events and industry developments; and provide customer service.

FY11 Milestones:
- 57,000 people participate in HIMSS social networking groups (36,000+ in FY10)
  - LinkedIn – 44,000+ members
  - Twitter – 8,800+ followers
  - Facebook – 3,800+ fans
- 50,000 mentions of HIMSS on social networking sites over the last 6 months—29,000 from 2/14/11 to 3/14/11
- 38,000 views of HIMSS Blog
- 200 videos garnered 10,000+ views on the HIMSS YouTube Channel
- HIMSS11 Social Media Center featured 12 educational sessions and served as a central point for attendees to connect and learn more about social media in healthcare

Informatics

Clinical Informatics: There were 2,961 HIMSS nursing informatics members and 408 pharmacy informatics members. The Nursing Informatics Community had 1,993 active members and there were 149 active participants in the Clinical Engineering and IT Community. At the HIMSS11 Clinical Engineering and IT Symposium, 120 attendees discussed the integration of electronic medical records and medical devices. There were 5,199 subscribers to *Clinical Informatics Insights.*

Transforming Nursing Practice through Technology & Informatics Position Statement: Nurses are key leaders in developing the infrastructure for effective and efficient health information technology that transforms the delivery of care. Recognizing this vital leadership role of nurses in providing quality patient care, the HIMSS Board of Directors approved a position statement describing how to transform nursing practice through technology and informatics. Leaders from the HIMSS Nursing Informatics Community, representing over 2,900 members who not only serve the nursing profession, but also, the broader healthcare industry and HIMSS membership at large, developed the position statement.

Privacy and Security: HIMSS provided testimony to ONC Federal Advisory Committee (FACA) Privacy and Security Tiger Team, December 2010.

IHE International: IHE International continued its impressive organizational membership growth, with a 65 percent increase from FY09 to FY11. IHE International includes 14 development domains and 19 national deployment committees. Now in its 12th year, IHE International promotes and supports the adoption of standards-based interoperable health information applications. IHE International has more than 300 members that represent healthcare, education, government, professional societies, trade associations, and industry throughout the world.

IHE USA Announces Incorporation: After more than a decade of improving the way healthcare systems share information for optimal patient care, IHE USA announced its incorporation and its website – www.iheusa.org. IHE USA, founded and supported by HIMSS and the Radiological Society of North America (RSNA), is a not-for-profit organization that operates as one of four deployment committees of IHE International®. Each deployment committee is a distinct organization with its own governance rules and business models that adhere to IHE Principles of Governance, but has the flexibility to meet the needs of its members and interoperability priorities of a specific country or region. Other deployment committees are:

- IHE Europe: Denmark, France, Germany, Israel, Italy, Norway, Spain, the Netherlands and United Kingdom
- IHE Asia-Oceania: Australia, China, Japan and Korea
- IHE North America: Canada and USA

IHE USA sponsors activities in the three primary areas of testing and test tool development, education and training, and implementation support of IHE Profiles. HIMSS transferred control of the North American Connectathon and Conference to IHE USA after its incorporation.

2011 IHE North America Connectathon: Focused on promoting and supporting the expansion and best use of these applications, the IHE North American Connectathon and Connectathon Conference 2011, sponsored by IHE USA and IHE Canada, brought together thought leaders and interoperable health IT systems from across the globe. Held Jan. 17-21, 2011, in Chicago, the weeklong multi-function event featured a five-day testing marathon and a day-long conference. There were 4,000+ verified tests, 450 HIT system developers and engineers, 150+ unique applications and devices, and 100 participating organizations and vendors. Six IHE user success stories were published.

International Standards: HIMSS relinquished the U.S. Technical Advisory Group (TAG) and Secretary for ISO/TC 215. American Health Information Management Association (AHIMA) received its board's approval to manage U.S. TAG and assume the Secretariat role for ISO TC 215. The American National Standards Institute (ANSI) approved AHIMA. The 2011 ISO TC 215 plenary meeting in Finland in May was the final international meeting supported by HIMSS under the ANSI/HIMSS agreement.

HIMSS led substantial growth in ISO/TC 215 and U.S. TAG membership during in its tenure, with 33 countries being participating members and 19 others being observers. During the HIMSS tenure, 89 standards were developed, with seven harmonized across six global standards development organizations. U.S. TAG membership included 13 associations, five government agencies, 16 vendors, and five universities.

Enterprise

HIMSS Executives Receive Healthcare Leadership Awards: The top executives at HIMSS have been recognized by their association industry peers for outstanding leadership and contributions to advancements in the field of health information technology. In a national ranking by *CEO Update,* a biweekly publication for professional association and non-profit executives, H. Stephen Lieber, CAE, president and CEO of HIMSS, placed among the top 21

CEO leaders. Also, R. Norris Orms, FACHE, CAE, HIMSS executive vice president and COO, received the Professional Performance Award from the American Society of Association Executives during its 2010 Annual Meeting & Exposition on Aug. 21-24 in Los Angeles. The award recognizes invaluable contributions made by senior association executives who are at the top level within their organizations but are not CEOs.

HIMSS Media Group

MedTech Media: In January 2011, HIMSS acquired major ownership in MedTech Media, a publishing group it has been a partner of since the company was founded in 2003. As part of the deal, MedTech will begin publishing *Government Health IT*, HIMSS's magazine. Editorial decisions of MedTech's publications, *Healthcare IT News* and *Healthcare Finance News*, will remain independent. MedTech will continue to produce *HIMSS Daily Insider*, the *HIMSS Expo Yellow Pages*, the *HIMSS Resource G*uide, and other annual conference-related publications and products. MedTech's management team, led by current president, Jack Beaudoin, will maintain ownership in the company.

HIMSS Analytics
2011 HIMSS Analytics Research

- 2011 Annual Report of the US Hospital IT Market;
- Sixth Annual HIMSS Analytics Essentials of the US Hospital IT Market;
- 2011 HIMSS Analytics Report on Health Information Exchange, Patient-Centered Medical Home and Accountable Care, February 2011;
- Clinical Analytics in the World of Meaningful Use, February 2011;
- Summary of Meaningful Use Readiness, September 2011;
- Medical Device Integration: CMIO and CNO Perspective, November 2011; and
- Summary of Meaningful Use Readiness, December 2011

HIMSS Global
- The Leipzig, Germany office opened on July 1, 2010.

- HIMSS Analytics Europe was introduced on July 1, 2010.

- The HIMSS Europe Leadership Summit was held September 29-October 1, *2010, in* Rome, Italy.

- The HIMSS Asia10 Health IT Congress and Leadership Summit were held from October 26-28, 2010 in Daegu, Korea. More than 250 attendees visited the showcase. There were 12 participating vendors and more than 10 educational sessions.

- The HIMSS Middle East Conference was held from November 8-10, 2010 in Dubai, United Arab Emirates.

- HIMSS Analytics Asia and Middle East were introduced in January 2011.

- The World of Health IT and eHealth Week Conference and Exhibition was held from May 10-12, 2011 in Budapest, Hungary. More than 2,300 attended the conference and exhibition. More than 300 attended its Interoperability Showcase, including those included in a special tour organized by the European eHealth Commissioner and the Hungarian delegation. Sixteen health IT companies participated in the showcase, which included 17 educational sessions in the theater. Forty people attended a half-day interoperability session featuring European initiatives and an industry leader panel discussion.

- The HIMSS Middle East Conference and Exhibition was held from May 29-31 2011 in Riyadh, Kingdom of Saudi Arabia.

2012 – HIMSS Launches mHIMSS with Focus on Mobile Health
July 2011 through June 2012

Mobile technology is transforming healthcare and has the ability to revolutionize healthcare delivery in the US and abroad. Recognizing that trend, HIMSS launched in December 2011 its new initiative, *m*HIMSS, to lead healthcare transformation through the best use of mobile technology and equip healthcare stakeholders with the knowledge and tools they need to harness the potential of mobile. The HIMSS Board of Directors unanimously approved this new initiative so that, with mobile technology, care may be improved, safety and access to care increased, and costs better controlled. *m*HIMSS membership is free to all current individual HIMSS members, who can opt-in by logging into the membership section of the website. Members will receive an e-newsletter, invitations to special *m*HIMSS events and education, access to the new website and more.

Awards
HIMSS Honors 2011 Award and Scholarship Winners: The 2012 Annual HIMSS Conference & Exhibition Awards and Recognition Banquet honored the 2011 Award Recipients for their significant contributions to the Society, their organizations and the health IT profession.

Publications Award
Book of the Year Award
The Health Information Exchange Formation Guide: The Authoritative Guide for Planning and Forming an HIE in Your State, Region, or Community
Authors: Laura Kolkman, RN, MS, BSN, FHIMSS, and Bob Brown

Service Awards
Board of Directors Service Award
Howard Burde, JD, FHIMSS
David Finn, CISA, CISM, CRISC
C. Martin Harris, MD, MBA, FHIMSS
Carol Selvey, MHSA, CPHIMS, FHIMSS

Distinguished Fellows Service Award
Mimi Hassett, RN, MSN, FHIMSS

Founders Leadership Award
Martha Dameron, RN, MSN, FHIMSS

John A. Page Outstanding Service Award
Barbara Demster, MS, RHIA

Life Member Award
Edward H. Burnet, LHIMSS
William Delamar, LFHIMSS
Fred Green, LFHIMSS
Walt Menning, LFHIMSS
Kathryn Smith, LFHIMSS
Bill Vrooman, LHIMSS

HIMSS Evelyn Award
June St. John, CTP

Special Interest Group Leader of the Year
Jodi Bloom, RN, MBA
Tammy Grygar

Chapter of the Year – Large
Southern California Chapter

Chapter of the Year – Small
North & Central Florida Chapter

Chapter Leader of the Year Award
David Butler, BS, MBA, FHIMSS
Jon Melling, FHIMSS, UKCHIP, Level 3

Industry Awards
CHIME-HIMSS John E. Gall Jr. /CIO of the Year Award
Rick Schooler, MBA, FACHE, FCHIME

Nursing Informatics Leadership Award
Carol Bickford, PhD, RN-BC, CPHIMS
Kathleen Smith, MScED, RN-BC, FHIMSS

Physician IT Leadership Award
Russell Leftwich, MD, FAAAAI, FCCP

ACCE-HIMSS Excellence in Clinical Engineering and Information Technology Synergies Award
Paul Schluter, PhD

SHS-HIMSS Excellence in Healthcare Management Engineering/Process Improvement Award
James Benneyan, PhD, FHIMSS

Foundation Supported Scholarships
The HIMSS Foundation and four HIMSS chapters provided nine scholarships to students enrolled in health IT and management systems degree programs.

Healthcare Information Management Systems: Undergraduate Scholarship
Roman Minyaylyuk, University of Illinois at Chicago

Master's Scholarship
Justin St-Maurice, University of Victoria

PhD Scholarship
Aaron Baird, Arizona State University

Richard P. Covert, PhD, FHIMSS Scholarship for Management Systems
Laura Sims, Georgia Institute of Technology

Chapter Supported Scholarships
South Florida Chapter Scholarship
Mohammed Islam, MS, Nova Southeastern University

New England HIMSS Dvora Brodie Chapter Scholarship
Vlad Anthohi, Northeastern University

New York State Chapter Scholarships (2 awarded)
Rodney Harrington, New York University
Karthik Natajaran, Columbia University

Northern California Chapter Scholarship
Katherine Kim, MBA, MPH, Betty Irene Moore School of Nursing, UC Davis

The 2011 Nicholas E. Davies Awards of Excellence
Since 1994, the HIMSS Davies Awards of Excellence have recognized management, functionality, technology and value - the pillars of health IT success. The six winners within the 2010 HIMSS Davies Awards four categories implemented electronic health records as an aid in delivering quality care to the patients and populations they serve.

HIMSS Enterprise Davies Award Winner

Kaiser Permanente

HIMSS Ambulatory Davies Award Winners
James F. Holsinger, MD, PC
Fallon Clinic

HIMSS Community Health Organization Davies Award Winner
Hudson River Healthcare, Inc.

HIMSS Public Health Davies Award Winners
New York City Department of Health & Mental Hygiene, Primary Care and Information Project

Florida Department of Health, Bureau of Epidemiology Electronic Surveillance System for Early Notification of Community-based Epidemics – Florida (ESSENCE-FL)

2012 Annual HIMSS Conference & Exhibition
The record-breaking trend continued for HIMSS12. Held for the time in Las Vegas, HIMSS12 convened at the Venetian Sands Expo Center from Feb. 20-24 with attendance at 37,032 attendees, surpassing the HIMSS11 attendance figure of 31,225 attendees. The exhibit floor included 1,123 exhibiting companies.

Sessions on Stage 1 and Stage 2 of meaningful use, ICD-10, mobile health and *m*HIMSS, business and clinical analytics, and more kept attendees busy. HIMSS12 also included HIT X.0 and Leading from the Future, two conferences within the conference introduced last year. In addition, Virtual HIMSS12 provided health IT professionals unable to travel to the conference access to the keynote and other educational sessions.

Keynote presentations at the conference included:
- Biz Stone, co-founder, Twitter;
- Farzad Mostashari, MD, ScM, National Coordinator for Health Information Technology, Department of Health and Human Services;
- Terry Moran, *NIGHTLINE* anchor;
- Donna Brazile, renowned political strategist and commentator, vice chair of voter registration and participation, Democratic National Committee;
- Dana Perino, political commentator and former White House press secretary; and
- Dan Buettner, founder of Blue Zones and world renowned explorer.

Interoperability Showcase: With 141 participating organizations and 5,000 visitors, the 39,500-sq.-ft. showcase brought in more than $1.3 million in revenue for HIMSS, a 43 percent increase from the HIMSS11 showcase.

HIMSS12 Media Coverage: The overall goal of the PR plan for HIMSS12 was to: generate awareness of key areas of focus at HIMSS12; raise visibility of health IT among a broader, more mainstream audience; and position HIMSS as cutting-edge and social.

In total, there were 455 pieces of coverage of HIMSS12 garnering 77,392,251 media impressions. A more in-depth recap of those results is below but highlights include:
- 46 unique pieces of coverage of the Leadership Survey alone with 8 business hits including: **Forbes:** Two HIMSS12 recaps (pre- and post-Conference) and **BusinessWeek:** HIMSS12 photos and interviews were featured in an online and print story about Las Vegas conventions;
- Prominent, in-depth and positive coverage of the Conference, its record-breaking attendance and key areas of focus by tier 1 healthcare publications such as American Medical News and Modern Healthcare;
- Coverage by HIMSS12 "newcomers" MarketWatch, MedPage Today and MedCity News;
- Virtual Conference coverage from folks such as Brian Horowitz, eWEEK; and
- CEO Steve Lieber was quoted in 20 pieces of original HIMSS12 coverage.

Informatics

Interconnected Health 2012: "Interconnected Health 2012: Enabling Health through High-Impact IT;" presented by OMG®, Health Level Seven® International (HL7), and HIMSS®, was held at the Hyatt Regency O'Hare in Chicago on April 2-4, 2012. Interconnected Health 2012 focused on approaches, challenges and solutions affecting the ability to connect health organizations and systems, and the role of IT as an enabler in achieving this connectivity. Geared toward the CxO suite and senior leaders within healthcare organizations, Interconnected Health provided a venue to hear what peer organizations are doing (both within the U.S. and abroad), to exchange ideas, and to interact with peers who are leaders in this space.

HIMSS Launches mHIMSS: Mobile technology is transforming healthcare and has the ability to revolutionize healthcare delivery in the U.S. and abroad. Recognizing that trend, HIMSS launched its new initiative, mHIMSS, to lead healthcare transformation through the best use of mobile technology and equip healthcare stakeholders with the knowledge and tools they need to harness the potential of mobile. Thus, care may be improved, safety and access to care increased, and costs better controlled. mHIMSS membership is free to all current individual HIMSS members, who can opt-in by logging into the membership section of the website.

2011 Annual HIMSS Mobile Technology Survey: This survey from HIMSS highlighted trends in clinicians' use of mobile technology. Nearly all of the 164 respondents participating in this first survey, which will be repeated annually, indicated that clinicians at their organization accessed information using a mobile device, with laptop computers and computers/workstations on wheels (COWs/WOWs), being most widely used.

Privacy and Security: HIMSS was quoted 55 times in the trade press on this topic and three articles and nine blog entries were developed. More than 20 educational briefings, presentations and meetings with federal and legislative staffers were held. Four webinars were hosted, a toolkit was developed, four public comments were made, and two invited testimonies for the Office of the National Coordinator's (ONC) Federal Advisory Committees were completed. HIMSS made a presentation to the Regional Extension Center Privacy and Security Community of Practice and developed a security survey in collaboration with the ONC and Office of Civil Rights.

Other Davies Award-related activities: Three meaningful use case studies were posted on the HIMSS website. A new book, *Smart Strategies from Davies Award-Winning EHR Implementations,* was published. A white paper, *"MU: Lessons Learned on the Path to EHR Excellence in Ambulatory Care"*, was published. Also, pre-Virtual Conference and Expo (VCE) and VCE presentations on meaningful use were developed.

Meeting Services

HIMSS10 Receives Gold Grand Award for "The Show with the Most Innovative Practices": For presenting innovative educational sessions to technology-friendly networking portals, the 2010 Annual HIMSS Conference & Exhibition received one of the highest honors in the trade show industry when the conference was recognized as "The Show with the Most Innovative Practices" at the 2012 Trade Show Executive Gold 100 Awards & Summit. Trade Show Executive (TSE) magazine annually recognizes the top 100 trade shows in the United States and awards those shows that have demonstrated leadership in various categories, selecting the winners a year after the show is held. HIMSS10 ranked 33 on the Gold 100 list and earned the Gold Grand award and a crystal trophy on September 22 for "The Show with the Most Innovative Practices," the most competitive category of the Grand Awards.

New Books Published:
2012 Annual Report of the U.S. Hospital IT Market. HIMSS/HIMSS Analytics ^{TM} LLC

mHealth: From Smartphones to Smart System. Rick Krohn, MA, MAS, and David Metcalf, PhD

Implementing Business Intelligence in Your Healthcare Organization. Cynthia McKinney, MBA, FHIMSS, PMP, Ray Hess, MSA, RRT, FHIMSS, and Michael Whitecar, MIS, LCDR (ret.), MSC, USN

Rethinking Return on Investment: The Challenge of Accountable Meaningful Use. Pam Arlotto, FHIMSS, Editor, with Susan Irby, Associate Editor

IT Governance in Hospitals and Health Systems. Roger Kropf, PhD, and Guy Scalzi, MBA

Improving Outcomes with Clinical Decision Support: An Implementer's Guide, Second Edition. Jerome A. Osheroff, MD, FACP, FACMI, Jonathan M. Teich, MD, PhD, FACMI, FHIMSS, Donald Levick, MD, MBA, FHIMSS, Luis Saldana, MD, MBA, FACEP, Ferdinand T. Velasco, MD, Dean F. Sittig, PhD, FACMI, FHIMSS, Kendall M. Rogers, MD, CPE, FACP, SFHM, and Robert A. Jenders, MD, MS, FACP, FACMI

HIMSS Media Group

so2say Communications in Europe: In August 2011, HIMSS acquired Berlin-based so2say communications, expanding HIMSS' media and communications offerings in Europe. So2say is now an independent subsidiary of HIMSS. Providing custom media products and communication

services for the health IT industry, so2say operates HealthTech Wire and the British Journal of Healthcare Computing. Read more about the HIMSS Media channels.

mHealth Summit Acquisition: HIMSS acquired, in early 2012, the mHealth Summit, one of the largest mobile healthcare events in the industry, to expand its focus on mobile health and health IT. HIMSS was an organizing partner for the 2011 mHealth Summit, hosted by the Foundation for the National Institutes of Health. That event attracted 3,600 attendees (a 33 percent increase over the previous year) representing 50 countries and 46 states, and 298 exhibitors, twice the number of those exhibiting at the 2012 conference

Social Media: In FY12, HIMSS Social Media started transitioning to a model where the HIMSS Social Media Team served as the center of excellence—developing high-level strategy; policies, guidelines and procedures; new social media channels, staff training and education—and the business units played a bigger role in supporting their initiatives and communities through social media. With this approach, the team substantially grew HIMSS social networking efforts and communities:

- 114,767 individuals are currently participating in HIMSS primary social networking channels versus 52,163 in 2011.
- Social networking sites and communications collectively rank in the top 5 initials referrers to HIMSS websites.
- HIMSS12 mentions increase from 15,916 in 2011 to 33,247 in 2012.
- HIMSS12 set the world record for number of tweets at a healthcare conference with 28,434 tweets the week of conference. Read more: http://www.symplur.com/blog/himss12-world-record-healthcare-conferenes.

Now, the social media team is training HIMSS staff to empower them to use social media to support their initiatives and realize their objectives. In addition, a formal reporting strategy and dashboards to measure and track social media's impact make correlations between social media and improvements in revenue, website traffic, customer growth and other areas.

HIMSS Analytics
2012 HIMSS Analytics Research

- 2012 Annual Report of the US Hospital IT Market;
- Seventh Annual HIMSS Analytics Essentials of the US Hospital IT Market;
- A New Prescription for Chronic Disease – Remote Monitoring Devices, February 2012;
- ICD-10 Shared Experience on the Road to Implementation, February 2012;
- EMR Benefits and Benefit Realization Methods of Stage 6 and Stage 7 Hospitals, February 2012;
- 2012 HIMSS Analytics Report: Quality and Safety Linked to Advanced Information Technology Enabled Processes, April 2012;
- The 2012 HIMSS Analytics Report: Security of Patient Data, April 2012;

- Clinical and Business Intelligence Survey, June 2012;
- The Intended and Unintended Consequences of Hospital EMRs: Hospital EMRs and Value Based Purchasing, June 2012; and
- The Intended and Unintended Consequences of Hospital EMRs: EMRs and Physician Satisfaction, June 2012

HIMSS Global

HIMSS Europe and HIMSS Asia Pacific held the following conferences during this fiscal year.

- September 20-22, 2011, HIMSS Asia Pac Conference and Leadership Summit, Melbourne, Australia;

- November 20-22, 2011, HIMSS Europe CIO Summit, Geneva, Switzerland
- March 6, 2012, HIMSS Dialogue, Singapore;

- March 6, 2012, HIMSS Dialogue, Singapore;

- March 8, 2012, HIMSS Dialogue, Kuala Lumpur, Malaysia;

- May 7-9, 2012, HIMSS World of Health IT and eHealth Week Conference and Exhibition, Copenhagen, Denmark;

- May 10-12, 2012 HIMSS Forum, Sydney, Australia; and

- May 20-21, 2012 HIMSS Middle East Conference Abu Dhabi, United Arab Emirates

APPENDIX I

Hospital Management Systems Society Resolutions
April 2, 1962

The Executive Committee recommended:

1. The president appoints a special negotiating committee to represent Hospital Management Systems Society.

2. That this committee request of American Hospital Association that a personal membership department be established for "Management Systems".

3. That the Hospital Management Systems Society's constitution be submitted with this request, anticipating that certain changes in the constitution will be required.

4. That the special committee seeks to maintain maximal autonomy including particularly control of membership requirements and admissions.

5. That a positive attempt be made to affiliate with the AIIE provided that the AIIE agrees to requirements compatible with both the HMSS and AHA.

6. That upon consummation of an agreement between the special committee and AHA, the resulting by-laws be submitted for consideration by the Executive Committee.

7. If approved, that such by-laws be submitted to the membership for ratification under Article XI of the HMSS Constitution.

APPENDIX II
HMSS Code of Ethics

The HMSS Code of Ethics was developed in 1964 and adopted in 1965 and minor changes were made in 1980. It was instituted to serve as guidelines to all HMSS members for their work in hospital management systems. The Code of Ethics stipulates professional behavior that requires members to:

1. Cooperate in promoting the effectiveness of the profession by exchanging information and experience with colleagues and other groups dedicated to the improvement of hospital management systems.
2. Endeavor to extend public knowledge of the objectives, activities, and contributions of their profession.
3. Act in professional matters with fidelity to the best interests of the client or employer, as long as such interest does not conflict with this code.
4. Endeavor to protect the professional from misunderstanding and misinterpretation.
5. Take proper safety precautions in the design of systems and facilities that affect patients, employees, or the public.
6. Perform the assigned work in a spirit of cooperation and understanding and give due regard to the dignity and worth of the individual.
7. Refrain from using their position or influence for selfish advantage and from advertising their work in a self-laudatory manner.
8. Refrain from expressing public opinions on matters for which they are not qualified, and abstain from practices likely to discredit or to do injury to the dignity and honor of the profession.
9. Take care that credit is given to those to whom credit is properly due.
10. Refrain from intervening in the practice of a colleague without the colleague's knowledge and from disparaging the work of the colleague.

APPENDIX III
Society Membership, Annual Meetings, and Board Chairpeople

Conference	Location	Date	Attendees	Exhibitors	Board Chair	HIMSS Members
		May 1961 Jan. 1962			Edward J. Gerner	45
1	Baltimore	April 1, 1962**			Edward J. Gerner	54*
2	Chicago	May 1963			George L. Deschambeau	88
3	New York City	June 1964			William T. Delamar	99
4	Chicago	May 1965			Edward H. Burnet	125
5	San Francisco	May 1966			Fred W. Green	155
6	Toronto	May 1967			George L. Deschambeau	150
7	Tampa	May 1968			John R. Freeman	244
8	Houston	May 1969			Addison C. Bennett	425
9	New Orleans	February 1970			Addison C. Bennett	525
10	Denver	February 1971			Patric E. Ludwig	628
11	San Francisco	February 1972			David H. Harris	693
12	Atlanta	February 1973			Ben W. Latimer	765
13	Houston	February 1974			Barton R. Burkhalter	783 (estimate)
14	Long Beach	February 1975			Julius Spivack	800
15	Colorado Springs	February 1976			William G. Flagg	977
16	St. Petersburg	February 1977			Louis E. Placella	1,060 (estimate)
17	Biloxi	February 1978			John E. Rueckert	1,142 (estimate)
18	Tucson	February 1979			Alan J. Goldberg	1,225 (estimate)
19	Lake Buena Vista	February 1980			Raymond J. Hanson	1,307
20	New Orleans	February 1981			Merrill H. Lehman	1,380
21	San Diego	February 1982			Justin A. Myrick, PhD	1,459
22	Atlanta	February 1983		10	Robert J. Durej	1,583
23	San Francisco	February 1984		15	Barry T. Ross	1,583
24	San Antonio	February 1985		20	Peter J. Ryerson	1,657
25	Lake Buena Vista	February 1986		38	Robert D. Gunn	1,814
26	Las Vegas	February 1987		55	Pamela A. Wilcox	1,793
27	Miami Beach	February 1988	650	85	James Turnbull	2,719
28	Anaheim	February 1989	1,225	128	Ned J. Simpson	3,769
29	New Orleans	February 1990	1,605	128	Richard L. Rydell	3,775 (estimate)
30	San Francisco	February 1991	1,800	164	John P. Glaser, PhD	3,551
31	Tampa	February 1992	2,500	160	Dennis P. L'Heureux	3,612
32	San Diego	March 1993	4,700	195	William C. Reed	4,036
33	Phoenix	February 1994	6,300	248	George E. Levesque	4,950 (estimate)***
34	San Antonio	February 1995	10,000	372	Nancy Aldrich	5,534
35	Atlanta	March 1996	12,870	425	Nancy Aldrich	7,758
36	San Diego	February 1997	15,800	418	Richard Howe, PhD	9,737
37	Orlando	February 1998	19,800	615	Cynthia Spurr	12,221
Next Page						

Appendix III						
Conference	**Location**	**Date**	**Attendees**	**Exhibitors**	**Board Chair**	**HIMSS Members**
38	Atlanta	February 1999	17,300	450	Jeff Cooper	11,898
39	Dallas	April 2000	17,600	600	Gary Kurtz	9,292
40	New Orleans	February 2001	19,400	678	Walter R. Menning	12,090
41	Atlanta	February 2002	18,600	591	Greg Walton	13,450
42	San Diego	February 2003	19,284	676	Richard Duncan	13,912
43	Orlando	February 2004	20,976	715	Dave Garets	15,373
44	Dallas	February 2005	22,877	701	Pamela Wirth	16,733
45	San Diego	February 2006	24,877	859	Blackford Middleton	18,439
46	New Orleans	February 2007	24,076	885	George T. Hickman	19,386
47	Orlando	February 2008	29,179	942	John Wade	19,902
48	Chicago	April 2009	27,429	907	Chuck Christian	24,125
49	Atlanta	February 2010	27,855	934	Barry Chaiken	30,462
50	Orlando	February 2011	31,225	1,000+	C. Martin Harris	37,928
51	Las Vegas	February 2012	37,032	1,123	Charlene Underwood	46,433
52	New Orleans	March 2013			Willa Fields	

*Charter members as of March 31, 1962

** There were 59 members as of April 25, 1962. Refer to the composition of the membership included under the heading "1962 — First National Convention Held in Baltimore"

*** FY changed from Jan. 1 – Dec. 31 to July 1 – June 30

Appendix IV
Life Members – LHIMSS and Life Fellow Members - LFHIMSS

In June 2007, the HIMSS Board approved two new designations for the Society's LIFE members:

- **LHIMSS** (Life Member of Healthcare and Information Management Systems Society)
- **LFHIMSS** (Life Fellow of Healthcare and Information Management Systems Society)

Life membership is defined in the HIMSS bylaws as "the category of persons who have been active in the field of healthcare information and management systems and a member in good standing for 30 continuous years."

FHIMSS members as of November 1, 2012, appear below.

Wayne Anderson, LFHIMSS
Leroy Baker, CPHIMS, LFHIMSS
Don Beddie, LFHIMSS
Edward H. Burnet, LFHIMSS
Peter Cabban, LFHIMSS
Richard Coffey, PhD, LFHIMSS
Richard Correll, CPHIMS, LFHIMSS
Richard P. Covert, PhD, LFHIMSS
David Cowan, LFHIMSS
Robert Davis, LFHIMSS
William Delamar, LFHIMSS
Richard Duncan, MBA, LFHIMSS
Robert Durej, CPHIMS, LFHIMSS
Howard Fagin, PhD, LFHIMSS
Dewey Freeman, LFHIMSS
John Freeman, PhD, LFHIMSS
Richard Friedland, LFHIMSS
Barbara Jean Gearhardt, LFHIMSS
John Gifford, CHE , LFHIMSS
Alan Goldberg, LFHIMSS
Larry Grandia, LFHIMSS
Fred Green, LFHIMSS
Robert Gunn, LFHIMSS
Robert Hager, LFHIMSS
Robert Harris, PMP, LFHIMSS
George T. Hickman, LFHIMSS
R. Scott Holbrook, LFHIMSS
James Hosking, LFHIMSS
Robert Kowalski, MS, FHF MA, CPHIMS, LFHIMSS
Michael Kusmin, MBA, CPHIMS, LFHIMSS
Arthur Lambert, MSIE , LFHIMSS
Sherri L. Lane, LFHIMSS
George Levesque, LFHIMSS
Dennis L'Heureux, MS, CPHIMS, LFHIMSS
Gerald Macks, FACHE, LFHIMSS
Gail Malcolm, FACHE, LFHIMSS

Pamela V. Matthews, RN, MBA, CPHIMS, LFHIMSS
D. Patrick Mazzolla, LFHIMSS
Walt Menning, LFHIMSS
Frank Milewski, MS, LFHIMSS
Morris Moriuchi, LFHIMSS
Justin Myrick, PhD, LFHIMSS
Marc Newman, LFHIMSS
Frank Overfelt, CPHIMS, LFHIMSS
John Page, LFHIMSS
Steven Pettigrew, LFHIMSS
Richard Reynolds, LFHIMSS
William Richel, LFHIMSS
Barry Ross, MHSA, MSIE , MBNQA, DSHS, LFHIMSS
Harvey Roth, LFHIMSS
Richard Rydell, MBA, LFHIMSS
Peter Ryerson, LFHIMSS
Homer Schmitz, LFHIMSS
Gay Doreen Serway, LFHIMSS
Ned Simpson, LFHIMSS
Chester Smith, LFHIMSS
Arthur Smith, LFHIMSS
Kathryn Smith, LFHIMSS
Thomas Smith, LFHIMSS
Steven Speer, LFHIMSS
Geoffrey Suszkowski, PhD, LFHIMSS
John Templin, FA CHE , LFHIMSS
Mark Tepping, MBA, LFHIMSS
Jim Turnbull, LFHIMSS
Gerald Vicenzi, LFHIMSS
Bill Vrooman, LFHIMSS
James Wagner, MS, CHS , FCHIME, LFHIMSS
Thomas Waterman, BS, MBA, LFHIMSS
Dennis Whitmire, LFHIMSS
Rodney Wiggins, LFHIMSS
Pam Wolff, LFHIMSS

LHIMSS members as of November 1, 2012, appear below.

William Andrew, LHIMSS
William Andrews, LHIMSS
E. Timothy Blakely, LHIMSS
Richard Chartier, LHIMSS
Richard Coffey, PhD, LHIMSS
Sheldon Dorenfest, LHIMSS
Andrew Ganti, LHIMSS
Thomas Gentile, LHIMSS
Raymond Hanson, LHIMSS
James Hill, LHIMSS
Thomas Krause, LHIMSS
Paul Mermelstein, LHIMSS
William Richel, LHIMSS
Thomas Webb, LHIMSS
Rodney L. Wiggins, LHIMSS

Please note: The LFHIMSS and LHIMSS lists are constantly being updated. Contact advancement@himss.org, if your name should appear on either of these lists.

Appendix V

HIMSS Corporate, Organizational Affiliate, Non-Profit Partners, RECs

	Type*	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
2001-2012	Corporate Members		87	144	214	281	320	334	333	384	470	550	569
	Organizational Aff								19	92	170	243	300
	Non-Profit Partners								23	25	64	65	188
	Regional Ext Centers										18	35	58

Each type includes all membership product levels in North America and International

APPENDIX VI
Fellows Chairs

Name	Year
Julius Spivak	1985
Barry Ross	1986
Frank Overfelt[1]	1993
Arthur R. Smith	1994
Peter Ryerson	1995-1996[2]
Richard Friedland	1996-1997
Bob Gunn	1997-1998
Nancy E. Aldrich	1998-1999
Deb L. Krau	1999-2000
John L. Templin	2001-2000
Scott A. Klink	2002-2001
Pam V. Matthews	2002-2003
Richard (Dick) Reynolds,	2003-2004
JoAnne W. Klinedinst,	2004-2005
Dean Athanassiades	2005-2006
Steven Friedman	2006-2007
Brian Compas	2007-2008

[1] Refer to the 1993 entry in the main text
[2] Fiscal Year changed to July 1 – June 30 from calendar year basis

APPENDIX VII
HIMSS Foundation Chairs

HIMSS Foundation – Chairs	
Name	**Dates Served**
Richard P. Covert, PhD	July 1, 2001 – June 30, 2002
Pamela Matthews, RN, MBA	July 1, 2002 –June 30, 2003
Gary Kurtz	4/15/2003-6/30/2004
Pamela R. Wirth, CPHIMS, FHIMSS	7/1/2004 – 6/30/2005
Brian Compas, FHIMSS	7/1/2005-6/30/2007
Lawrence Dux, CPHIMS, FHIMSS	7/1/2007-6/30/2008
Karen Ondo, FHIMSS	7/1/2008-6/30/2010
Steve Friedman, FHIMSS	7/1/2010-6/30/2011
Charlene Underwood	7/1/2011 – 6/30/2012

APPENDIX VIII
Member Emeritus

Richard P. Covert, PhD

APPENDIX IX
HIMSS 2013-2014 Public Policy Principles
Approved by the Board of Directors on December 7, 2012
SUMMARY

HIMSS is a cause-based, not-for-profit organization exclusively focused on providing global leadership to save lives, improve outcomes of care, and reduce costs by transforming the delivery of healthcare through the appropriate use of clinically relevant technological innovations, exchange of healthcare information, information technology (IT) and management systems. Founded over 50 years ago, HIMSS and its related organizations have offices in Chicago; Washington, DC; Brussels; Singapore; Leipzig; and other locations across the United States. HIMSS represents more than 50,000 individual members. HIMSS frames and leads healthcare IT practices and public policy through its content expertise, professional development, and research initiatives designed to improve the quality, safety, access, and cost-effectiveness of patient care.

HIMSS formulates its Public Policy Principles to serve as guidance for proposed health IT-related legislation by the U.S. Congress and state legislatures, and inclusion in federal and state regulations to improve the quality, accessibility, and efficiency of healthcare and reduce costs using IT. Additionally, HIMSS's Public Policy Principles serve as a roadmap to guide HIMSS' activities throughout the year. The Public Policy Principles are formally reassessed bi-annually by a Work Group of HIMSS individual members, formally reviewed by the various HIMSS Committees and functional experts throughout the Society, and approved by the HIMSS Board of Directors. Proposed changes may be submitted by any HIMSS individual member; the Policy Principles are updated by the Board of Directors on an as-needed basis.

For 2013 - 2014, HIMSS addresses its policy principles in the following categories:

1. Funding and Incentives
2. Clinical Quality and Outcomes
3. Organizational Structure
4. **Interoperability, Standards, and Infrastructure**
5. **Innovation, Safety, and Process**
6. Privacy and Security
7. Legal
8. Patient Empowerment/Consumer Engagement
9. Equity and Access
10. Population and Public Health Management
11. Workforce Development
12. Administrative Simplification
13. Mobile Health
14. Regional and State Level

Go to the HIMSS website for the complete 2013-2014 HIMSS Public Policy Principles.

Appendix X
HIMSS Analytics Research Reports
2007 - 2012

2007 HIMSS Analytics Research

- 2007 Annual Report of the US Hospital IT Market
- Second Annual HIMSS Analytics Essentials of the US Hospital IT Market
- Sharpening the Case for Returns on Investment from Clinical Information Systems, 2007
- 2007 HIMSS Analytics Report: Care-Based Revenue Cycle Management, February 2007
- Stage 6 Hospitals: The Journey and the Accomplishments, September 2007

2008 HIMSS Analytics Research

- 2008 Annual Report of the US Hospital IT Market
- Third Annual HIMSS Analytics Essentials of the US Hospital IT Market
- 2008 HIMSS Analytics Report, Security of Patient Data, April 2008
- The HIMSS Analytics Guide to Evaluating Mobile Cart Technology, May 2008
- 2008 HIMSS/HIMSS Analytics Ambulatory Healthcare IT Survey, October 2008
- Hospital IT Expenses and Budgets Related to Clinical Sophistication, October 2008

2009 HIMSS Analytics Research

- 2009 Annual Report of the US Hospital IT Market
- Fourth Annual HIMSS Analytics Essentials of the US Hospital IT Market
- The 2009 HIMSS Analytics Guide to Evaluating Mobile Cart Technology, March 2009
- Top Five Challenges for Wireless Healthcare Deployments, May 2009
- Intelligent Medical Devices in Hospitals – An Overview, June 2009
- The State of US Hospitals Relative to Achieving Meaningful Use Measurement, October 2009
- 2009 HIMSS Analytics Report: Evaluating HITECH's Impact on Healthcare Privacy and Security, November 2009

2010 HIMSS Analytics Research

- 2010 Annual Report of the US Hospital IT Market
- Fifth Annual HIMSS Analytics Essentials of the US Hospital IT Market
- Canadian Healthcare Insights

- Hospitals Embrace E-Procurement for Supply Chain Management – Enterprise Integration is the Next Challenge, February 2010
- RAC Audits: IS Your Organization Ready?, February 2010
- 2010 HIMSS Analytics Report, Security of Patient Data, April 2010
- Clinical Analytics: Can Organizations Maximize Clinical Data, June 2010
- Medical Devices Landscape: Current and Future Adoption, Integration with EMRs and Connectivity, December 2010

2011 HIMSS Analytics Research

- 2011 Annual Report of the US Hospital IT Market
- Sixth Annual HIMSS Analytics Essentials of the US Hospital IT Market
- 2011 HIMSS Analytics Report on Health Information Exchange, Patient-Centered Medical Home and Accountable Care, February 2011
- Clinical Analytics in the World of Meaningful Use, February 2011
- Summary of Meaningful Use Readiness, September 2011
- Medical Device Integration: CMIO and CNO Perspective, November 2011
- Summary of Meaningful Use Readiness, December 2011

2012 HIMSS Analytics Research

- 2012 Annual Report of the US Hospital IT Market
- Seventh Annual HIMSS Analytics Essentials of the US Hospital IT Market
- A New Prescription for Chronic Disease – Remote Monitoring Devices, February 2012
- ICD-10 Shared Experience on the Road to Implementation, February 2012
- EMR Benefits and Benefit Realization Methods of Stage 6 and Stage 7 Hospitals, February 2012
- 2012 HIMSS Analytics Report: Quality and Safety Linked to Advanced Information Technology Enabled Processes, April 2012
- The 2012 HIMSS Analytics Report: Security of Patient Data, April 2012
- Clinical and Business Intelligence Survey, June 2012
- The Intended and Unintended Consequences of Hospital EMRs: Hospital EMRs and Value Based Purchasing, June 2012
- The Intended and Unintended Consequences of Hospital EMRs: EMRs and Physician Satisfaction, June 2012

Appendix XI
Awards

Visit the HIMSS Web site at www.himss.org/awards **for a complete listing of recent award recipients.**

Appendix XII
Modern Healthcare/HIMSS CEO IT Achievement Award Winners/2003 – 2012

Sponsored by *Modern Healthcare* magazine and HIMSS, the annual CEO IT Achievement Award recognizes one or more healthcare industry chief executive officers who demonstrate leadership and commitment to using information technology to advance their healthcare organization's strategic goals. Read more about the awards on the HIMSS website.

Year	Recipient	Title	Organization	Location
2003				
2003	**George Vecchione**	President and CEO	Lifespan	Providence, RI
2003	**Peter Velez**	Executive Director, and Senior Vice President	Elmhurst Hospital Center, and Queens Health Network	New York, NY New York, NY
2004				
2004	G. Richard Hastings	President and CEO	St. Luke's Health System	Kansas City, Mo.
2004	Judith Pelham	President and CEO	Trinity Health	Novi, Mich.
2004	Leonard Schaeffer	Chairman and CEO	WellPoint Health Networks	Thousand Oaks, Calif.
2005				
2005	Joel Allison	President and CEO	Baylor Health Care System	Dallas, Texas
2005	George Halvorson	Chairman and CEO	Kaiser Foundation Health Plan and Hospitals	Oakland, Calif.
2005	Mark Neaman	Chairman and CEO	Northwestern Healthcare	Evanston, Ill.

Modern Healthcare/HIMSS CEO IT Achievement Award Winners				
Year	**Recipient**	**Title**	**Organization**	**Location**
2006				
2006	Dr. Glenn Steele Jr.	President and CEO	Geisinger Health System	Danville, Pa
2007				
2007	Alan Aviles	President and CEO	New York City Health & Hospitals Corp	New York, NY
2007	John Ferguson	President and CEO	Hackensack University Medical Center	Hackensack, N.J.
2007	Mike Murphy	President and CEO	Sharp Health Care	San Diego, Calif.
2008				
2008	Diane Cecchettini	President and CEO	MultiCare Health System	Tacoma, Wash.
2008	Douglas Hawthorne	CEO	Texas Health Resources	Arlington, Texas
2008	Dr. James Mongan	President and CEO	Partners HealthCare System	Boston, Mass.
2009				
2009	Michael Green	President and CEO	Concord Hospital	Concord, N.J.
2009	Dr. Edward Murphy	President and CEO	Carilion Clinic	Roanoke, Va.
2009	Anthony Spezia	President and CEO	Covenant Health	Knoxville, Tenn.
2010				
2010	David Bernd	CEO	Sentara Healthcare	Norfolk, Va.
2010	Peter Fine	President and CEO	Banner Health	Phoenix, Ariz.

Modern Healthcare/HIMSS CEO IT Achievement Award Winners				
Year	Recipient	Title	Organization	Location
2011				
2011	Michael Dowling	President and CEO	North Shore-Long Island Jewish Health System	Great Neck, N.Y.
2011	Christopher Durovich	President and CEO	Children's Medical Center	Dallas, Texas
2011	John Gribbin	President and CEO	CentraState Healthcare System	Freehold, N.J.
2012				
2012	Dr. Steven Altschuler	CEO	The Children's Hospital of Philadelphia	Philadelphia, Pa.
2012	Lynn Britton	President and CEO	Mercy	Chesterfield, Mo.
2012	Richard Miller	President and CEO	Virtua	Marlton, N.J.

APPENDIX XIII
HIMSS Policy Award Winners

Date	Name	Category
April 2003	Hon. Nancy L. Johnson	Advocacy Leadership Award
April 2004	Hon. Tommy Thompson	Advocacy Leadership Award
April 2005	Hon. Patrick J. Kennedy	Advocacy Leadership Award
April 2005	Hon. Newt Gingrich	Advocacy Leadership Award
June 2006	Carolyn M. Clancy, MD	Advocacy Leadership Award
June 2006	Hon. Shane E. Pendergrass	Advocacy Leadership Award
May 2007	Hon. Michael O. Leavitt	Advocacy Leadership Award
May 2007	Hon. Debbie A. Stabenow	Advocacy Leadership Award
May 2007	Hon. Olympia J. Snowe	Advocacy Leadership Award
May 2007	Hon. Aneesh P. Chopra	Advocacy Leadership Award
May 2007	Hon. Bob Hagedorn	Advocacy Leadership Award
May 2007	State of Michigan	State Advocacy Award
June 2008	Hon. Sheldon Whitehouse	Federal Leadership Award
June 2008	Hon. Phil Gingrey, MD	Federal Leadership Award
June 2008	Robert Kolodner, MD	Federal Leadership Award
June 2008	Hon. Herb Conaway, MD	State leadership Award
June 2008	Rhonda Medows, MD	State Leadership Award
June 2008	State of New York	State Advocacy Award
June 2008	State of Tennessee	State Advocacy Award

HIMSS Policy Award Winners		
Date	Name	Category
Sept. 2009	Hon. Michael Enzi	Federal Leadership Award
Sept. 2009	Hon. Richard Moore	State Leadership Award
Sept. 2009	Anthony D. Rodgers	State Leadership Award
Sept. 2009	Commonwealth of Virginia	State Advocacy Award
June 2010	Hon. Patrick J. Kennedy	Lifetime Achievement Award
June 2010	Tony Trenkle	Federal Leadership Award
June 2010	Garth Graham, MD, MPH	Federal Leadership Award
June 2010	Hon. Julie Hamos	State Leadership Award
June 2010	William O. Byrne, JD	State Leadership Award
June 2010	State of Oregon	State Advocacy Award
September 2011	Farzad Mostashari, MD, ScM	Federal Leadership Award
September 2011	Hon. Gayle Harrell	State Leadership Award
September 2012	Mary Wakefield, Ph.D, RN	Federal Leadership Award
September 2012	Hon. Linda Upmeyer, RN	State Leadership Award

Appendix XIV
HIMSS Global Conferences

HIMSS	Global	Conferences				
Year	Date	Event	City	Country	Attendance	Exhibitors
2006	October 11-13	World of Health IT Conference and Exhibition	Geneva	Switzerland	1754	58
2007	May 15-18	HIMSS Asia Pacific Conference and Exhibition	Singapore	Singapore	1154	52
2007	October 22-25	World of Health IT Conference and Exhibition	Vienna	Austria	1807	66
2008	May 20-23	HIMSS Asia Pacific Conference and Exhibition	Hong Kong	SAR	1479	48
2008	November 4-6	World of Health IT Conference and Exhibition	Copenhagen	Denmark	2074	77
2009	February 24-27	HIMSS Asia Pacific Conference and Exhibition	Kuala Lumpur	Malaysia	1812	71
2009	May 5-7	HIMSS Middle East Conference	Manama	Bahrain	336	17
2009	November 15-17	HIMSS Middle East Leadership Summit	Muscat	Oman	95	0
2010	March 15-18	World of Health IT and eHealth Week Conference and Exhibition	Barcelona	Spain	2505	95
2010	May 26-28	HIMSS Asia Pacific Exposition	Beijing	China	1510	54
2010	September 29-October 1	HIMSS Europe Leadership Summit	Rome	Italy	104	4

HIMSS	Global	Conferences				
Year	Date	Event	City	Country	Attendance	Exhibitors
2010	October 26-28	HIMSS Asia10 Health IT Congress and Leadership Summit	Daegu	Korea	298	10
2010	November 8-10	HIMSS Middle East Conference	Dubai	United Arab Emirates	448	15
2011	May 10-12	World of Health IT and eHealth Week Conference and Exhibition	Budapest	Hungary	1901	59
2011	May 29-31	HIMSS Middle East Conference and Exhibition	Riyadh	Kingdom of Saudi Arabia	670	28
2011	September 20-22	HIMSS Asia Pac Conference and Leadership Summit	Melbourne	Australia	1094	76
2011	November 20-22	HIMSS Europe CIO Summit	Geneva	Switzerland	152	8
2012	March 6	HIMSS Dialogue	Singapore	Singapore	34	2
2012	March 8	HIMSS Dialogue	Kuala Lumpur	Malaysia	55	3
2012	May 7-9	HIMSS World of Health IT and eHealth Week Conference and Exhibition	Copenhagen	Denmark	2377	98
2012	May 10-12	2012 HIMSS Forum	Sydney	Australia	119	5
2012	May 20-21	HIMSS Middle East Conference	Abu Dhabi	United Arab Emirates	394	21
2012	September 17-19	HIMSS Asia Pacific Conference and Exhibition	Singapore	Singapore	1903	62

APPENDIX XV
HIMSS Media Group History

Decade Of Development

2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

Acquired:
MedTech (Minority Interest)
Healthcare IT News
HIMSS Show Media

Acquired:
Majority Interest/MedTech

Acquired:
so2say communications

Acquired:
mHealth Summit
Citadel Events UK, Health + Infomatics (Minority Interest)
Swiss eHealth Summit
Hospital IT Europe
Partnership:
British Computing Society: Unified HC 2013/Health + Informatics