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# The New—and Ever-changing—Role of the Healthcare CIO

*EXECUTIVE SUMMARY*

Was it just a dream? Was today's healthcare CIO really just an IT director, the manager of a utility, a mere 15 to 20 years ago? As we've watched the arc of IT ascend in importance over the last two decades in healthcare, so also we've witnessed the role of the IT manager expand into the CIO, a senior executive position in the healthcare organization.

Three stages seem to characterize the role of the CIO over this period. The first two, as mentioned above: the low-profile IT director, which then evolved into the member of the senior executive team. Today, a third stage is emerging quickly: the CIO as technology architect for the organization as IT infrastructure and clinical automation assume mission-critical status in the success of healthcare delivery.

This issue of Information Edge explores the ways the CIO role is changing from the perspective of CIOs at Advocate Health Care, Oakbrook, Il., Allina Hospitals & Clinics, Minneapolis, CHRISTUS Health, Dallas, Intermountain Health Care, Salt Lake City, and a CEO at Integris Health, Oklahoma City, all Scottsdale Institute member organizations. We also talked to an executive from Korn/Ferry International, an international executive search firm that is an S.I. program partner.

In many ways, of course, we've just scratched the surface in terms of CIO potential. The organizations we interviewed for this report are leaders in IT process improvement—and yet most of them are still investing only about 2.5% of their operating budgets in IT. In contrast, non-healthcare companies like Federal Express Corp. invest as much as 25% in technology. Healthcare may or may not reach that level of IT investment, but it's sure to grow. And that means that the CIO's role will change yet again. In that sense, consider this report a snapshot of a role in transition.



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## SI MEMBERS MAKE BEST LIST

The August 2 issue of *U.S.News & World Report* featured 38 hospitals that made both its ranking of "America's Best Hospitals" this year and *Hospital & Health Networks'* annual list of the "100 most-wired hospitals and health systems." Scottsdale Institute members who achieved both honors include Advocate Lutheran General Hospital, Park Ridge, Ill. (Advocate Health Care); Brigham and Women's Hospital and Massachusetts General Hospital, both Boston (Partners HealthCare System); Clarian Health Partners, Indianapolis; Northwestern Memorial Hospital, Chicago; Sentara Norfolk General Hospital, Norfolk, Va. (Sentara Healthcare).

*Congratulations to all!*

## A question of value

"Healthcare organizations are more reliant on the CIO than ever before," says Douglas D. Greenberg, Atlanta-based client partner with Korn/Ferry International. "As IT investment increases to heights previously unseen within the healthcare industry, CEO's and boards are looking to the CIO to realize the value of these investments—as many of these dollars are being allocated to mission critical clinical information systems," he says.

KORN/FERRY INTERNATIONAL

**Douglas D. Greenberg, client partner, Korn/Ferry, Atlanta**

As IT has become a more critical component within the overall healthcare enterprise, visibility and stature of the CIO function has increased both across the organization as well as at the board level. The CIO has become an active participant in the management team and is held to a higher standard than before, needing to demonstrate an acute understanding of business operations and clinical care, which has caused not only a role transformation, but a change in the emotional make-up of the successful CIO.

"Today's CIO must demonstrate a very high-level of emotional intelligence, be able to effectively communicate, build relationships and create consensus at all levels of an organization," says Greenberg. "The CIO must be comfortable in a more externally focused role, helping to educate, advise and counsel large and diverse groups of constituents as IT decisions now touch and effect everyone within the hospital environment—physicians, nurses, administrators and hospital employees," he says.

## Chief Geek no more

"This used to be the chief geek role," says Bob Plaszcz, VP and CIO at Allina Hospitals & Clinics in Minneapolis. "Nobody outside IT really understood what was going on. It was the realm of computer science." Then, he says, the view of the CIO evolved to that of a visionary for the IT strategy plan to drive business, resulting in a shift of responsibility to the CIO.

In the last few years, the CIO's emphasis has shifted again. There's real emphasis on delivering value to the organization via IT—and not for merely cost reduction.

**Bob Plaszcz, VP & CIO, Allina Hospitals & Clinics, Minneapolis**

ALLINA Hospitals & Clinics

"This new role involves real collaboration with operations executives, the revenue generators. You really need to team with those folks. Infrastructure is extremely important now. At Allina, we're implementing an EMR from EPIC. It's no longer the case in which you have a disaster-recovery site in another state that you can drive to with backup tapes with all your data. We're much more dependent upon instantaneous recovery for the infrastructure. Business continuity planning is critical—you can't interrupt the business at all," says Plaszcz.

"We can bullet-proof a clinic 50 miles away with redundant systems but all the overhead to do that would require charging each patient $50,000 per office visit," so, instead, the central, supporting IT infrastructure has to be bulletproof, he says.

## I'll take another slice

The diffusion of technology has made everybody dependent on it. For example, CT scanners make it possible to produce 64-slice views that can produce 1,000 images per study. As a result, both specialists and primary care clinicians are asking where they can store those images. "Technology has crept into the vocabulary of day-to-day business," says Plaszcz.

Allina's first clinic went "live" with its EMR last month, the first step in an 11-hospital, 50-clinic implementation during the next 44 months. That effort ensures the dependence on IT infrastructure. "People still don't understand sub-second response time, especially when people don't want to pay. With the EMR, there are images associated with it. There are network and uptime demands," he says.

"The CIO role will continue to change," says Plaszcz, who became Allina's CIO last November. "It's much more relationship-based than it has been in the past. You have to build relationships with the business units. I'm really here for them. The days are gone of building power."

## Pater technologicus

"My role is getting less and less technical," says George Conklin, senior VP and CIO at CHRISTUS, a Dallas-based system with 44 hospitals in Texas, Louisiana, Arkansas and the country of Mexico. "It's much broader in the sense of having to put together technology, not just traditional IT, but any technology that has to do with data about the patient, case or event. That includes revenue cycle and general ledger information. It's about getting all the right data to the right place."

All that data may not come from traditional IT sources but from, for example, laboratory devices, radiology equipment and fetal monitoring equipment. "What we're increasingly seeing is that everything wants to ride on the network," he says.

George Conklin, senior VP & CIO, CHRISTUS, Houston

CHRISTUS Health

Clinicians are asking how they can get data, using terms like "dial-up terminal." Radiologists want to make images available to referring physicians and cardiologists want to do the same with EKGs. "They now want that information integrated within the electronic medical record," says Conklin, "so that the clinician has a better view of the patient at the point a decision is being made."

As a result, Conklin's role as CIO has expanded beyond the confines of IT to encompass professionals like biomedical engineers, whose leadership reports to him, as well as pharmacists and radiologists. "I help them get vision around what the rest of the organization is doing."

## Integrating the vision

"No more is it a question of how do I get an image out to Dr. Smith," he says, "but how do I get it integrated with other medical information. The CIO role is more of a nexus of relationships. While I'm responsible for infrastructure, my role is becoming the information architect for the organization." The same change has occurred in non-healthcare industries, where in some of organizations, it's become the role of chief technology officer to integrate all the different kinds of technology to effectively support organizational strategy.

## WELCOME NEW SI BOARD MEMBERS

Anthony Tersigni

Kevin Wardell

Anthony Tersigni, president and CEO, Ascension Health, and Kevin Wardell, president, Norton Hospital, Norton Healthcare, have joined the SI Board of Directors. Both have been active in SI over the years and will contribute veteran insights as the organization moves ahead. They join current members:

- Stan Nelson, chairman
- Don Wegmiller, vice-chairman
- Gordon Sprenger, secretary & treasurer
- David Benfer, St. Raphael Healthcare System
- David Campbell, healthcare consultant
- Bob Clarke, Memorial Health System
- Steve Heck, FCG
- Stan Hupfeld, Integris Health
- Lowell Kruse, Heartland Health
- Scott Parker, Intermountain Health Care
- Tim Stack, Piedmont Hospital
- Bill Young, Central Maine Healthcare

"My role is to get people to sit down and think through the vision and their business drivers, to identify the common thread of all these needs." Conklin says he is much more involved these days in the broader business strategies of the organization, in particular assessing the technical implications.

Much of this change arose from a Futures Task Force that CHRISTUS convened about three years ago to identify future implications for all aspects of the organization's operations. It found that the two biggest drivers for future change were technology and regulatory factors. As CIO, Conklin is responsible for the first of those two drivers.

Indeed, Conklin sees his role becoming even more of a visionary than before because of his increased involvement in service delivery design. For example, he is helping lead development of senior strategies for CHRISTUS, an effort involving elements of technology, core-service delivery, human services and financing.

"Before, I was responsible for IT strategy for the organization but now I'm getting more into service provision—not just clinical services but other business strategies. We don't see IT as something different than the rest. Integrated business needs have to drive IT," Conklin says.

This new CIO role requires new skills. "Those CIOs who are technically focused are going to suffer. The CIO has to understand the full gamut of services encompassing clinical care and business operations. Heretofore healthcare has made a poor attempt to integrate the two."

## Searching for a CIO

Stan Hupfeld, CEO of Oklahoma City, Okla.-based Integris Health, recently had to re-examine the job description of the CIO as Integris conducted a search process for a new one. "I was curious about the pattern of reporting relationships. In the past, IT was of lesser importance. Whoever ran the data shop tended to be a mid-level manager. In the last several years as IT became a strategic priority and became a way to differentiate, IT became a major strategic advantage."

Stan Hupfeld, CEO, Integris Health, Oklahoma City

However, that landscape may be changing yet again, because—even as IT becomes more sophisticated—the playing field is being leveled as more and more healthcare delivery organizations move toward paperless systems like CPOE, he says. "We become like banks as IT systems become similar. The price to play the game then becomes having sophisticated IT. Increasingly I'm hearing from other CEOs that the technology itself is becoming fairly uniform and widespread."

As a result, says Hupfeld, "We're all going to look pretty much alike. If I can use my ATM card anywhere in the world, obviously there's a sharing of information and IT standards. Banks don't compete on technology. They compete on what they do with it in the form of customer offerings."

In that scenario, the question is whether the CIO continues to be a major strategist, becomes more of an implementer or even returns to being the manager of a utility. "My answer is that the CIO will still be part of the senior management team. It will never go all the way back to a role where all you're doing is getting employ-

### *Upcoming Events*

For information on any of these teleconferences, please contact the Scottsdale Insititute office at 952.545.5880 or register on our Website scottsdaleinstitute.org

**September 14**
*The Fourth Leap: Early Returns, Scoring, and Future Direction*
- Barbara Rudolph, PhD, director, Leaps and Measures, The Leapfrog Group, Washington D.C.
- Chuck Denham, MD, advisor to the Leapfrog Group and chairman, Texas Medical Institute of Technology, Austin, Texas

**September 20**
*SI Overview Teleconference*
- Shelli Williamson, executive director, Scottsdale Institute, Chicago

**September 22**
*Six Sigma Results at Motorola*
- Christine Cantarino, senior director of Operations and Digital Six Sigma, Wireless Systems Division, Motorola, Arlington, Ill.

**September 23**
*Patients and Clinicians: Joint Owners of a Fully Transparent, Electronic Medical Record*
- Tom Delbanco, MD, Koplow-Tullis Professor of General Medicine and Primary Care at Harvard Medical School and founder of the division of General Medicine and Primary Care at Beth Israel Deaconess Medical Center, Boston

*more events on next page*

ees paid and transacting accounts payable. It's much more sophisticated than that," Hupfeld says, adding that most healthcare CIOs would expect to be part of the senior management team.

"As we did our search process, part of the attractiveness of our CIO position was that it reported to the CEO. The kind of CIO we need sees him or herself at the top level of senior management."

## Partnering with the business

"Strategy is as or more important than ever in the CIO's role because of the dollars and operational impacts associated with IT," says Marc Probst, CIO at Intermountain Healthcare, a 20-hospital, 100+-clinic health system based in Salt Lake City. "You're not looking at just a pharmacy or other ancillary system anymore, but investments of hundreds of millions of dollars over many years. To do that without a strategic outlook would be irresponsible."

IHC INTERMOUNTAIN HEALTH CARE

Marc Probst, CIO, Intermountain Healthcare, Salt Lake City

The key change in recent years, he says, is the involvement of business partners—physicians, nurses, administrative personnel, CEOs—all demanding a role in the definition and execution of IT. That factor places a premium on the CIO's ability to help focus such partners and facilitate alignment and priority of direction.

"The scope of our IT decisions is so large that it's not left up to just the CIO anymore. But it is incumbent upon the CIO to educate, bring the facts to bear. At IHC, the board and other senior managers are not looking at me to say 'This is exactly what we do.' My role is to make sure that ideas are presented and that there is an agreement on the direction of IT in its support of operations," says Probst.

That means the ability to communicate is key—not only to report back facts but to communicate on a real-time basis with all the leaders of IHC's various regions.

Probst says the entire IHC organization is focused on achieving value from major IT initiatives like an EMR, ambulatory automation and the integration of financial and clinical applications. While safety and quality have always been IT priorities, IHC is also evaluating workflow and financial processes.

## Onstage

"It's much more of a high-stakes game today," says Bruce Smith, CIO at Oak Brook, Ill.-based Advocate Health. In the past, delays or other IT issues didn't have as big an impact. Now, IT-related projects tend to be high budget with corresponding high visibility and impact.

AdvocateHealthCare

Bruce Smith, CIO, Advocate Health Care, Oakbrook, Ill.

"People are looking at you more. IT used to be a utility and the consequences were not very significant. Today, technology can get CEOs fired: if technology projects go bad or if needed technology projects fail to materialize. There's much more interest from overall leadership."

*Upcoming Events continued*

**September 27**
*Knowledge Management: A Collaboration Among SI Members*
- Shelli Williamson, executive director, Scottsdale Institute, Chicago
- Janet Guptill, president, KM at Work, St. Louis

**September 30 – October 1**
*Advanced Technologies: Advancing Care*
- SI Fall Conference, Partners HealthCare System, Inc., Boston

**October 12**
*Managing Benefits Measurement and Realization*
- Mary Trimmer, Trinity Health, Novi, Mich.
- Sharon Henry, Allina Hospitals and Clinics, Minneapolis
- Margaret Bearss, Piedmont Hospital, Atlanta
- Sharon Young, Cedars Sinai, Los Angeles

**October 14**
*SI Overview Teleconference*
- Shelli Williamson, executive director, Scottsdale Institute,Chicago

**October 21**
*EHR Trends and Usage: MRI Survey Results*
- Jeff Blair, VP, The Medical Records Institute, Albuquerque, N.M.

*more events on next page*

The risk is much more significant. As a result, the question of value of the IT investment comes front and center. And value becomes centered around whether people use the technology or not. Smith says that measuring the value of IT has gone through three phases in the last 15 years:

1. Availability and response time—if the system is up 99% of the time and response time is under 5 seconds, everything is ok;
2. Is anyone using it—tracking the number of physicians and nurses logged on, for example;
3. Who is using it and for what value?

"Health systems ask the question, 'Do we put in a new EMR system or put in a new wing?'" says Smith. "It's much more challenging. Fifteen to 20 years ago today's CIOs were more likely to be managers located in the basement. The only stress involved arose from not being able to accomplish what we knew we could do because we didn't have the resources. Now I'm getting a lot more resources and the expectations are much higher."

It used to be when systems went down nobody noticed. Now everybody knows and CIOs are definitely onstage. "Your primary users used to be finance and some administration. Now the population counting on you is significant, 3,000 to 4,000 nurses, for example. Even if we do downtime procedures, people don't become very proficient at them because they never get to practice them," he says.

Smith says that he is much more involved with executive leaders at each of Advocate's 10 hospitals because he is managing more and more IT implementations for them, an indication of how IT has become critical organization-wide.

## Conclusion

Driven by the commanding importance of accurate and accessible information in healthcare, whether from traditional IT or other sources, the CIO serves an increasingly central role in the restructuring of healthcare for better quality, service and economy. This is apparent as more and more emphasis is placed on expanding the CIO's circle of relationships with business partners with correspondingly less emphasis on technical details. This is information with a big "I" and it has been unfolding for the past two decades or more. If we stand back for a moment we can truly say, without fear of triteness or grandiosity, that we are continuing to observe the information age fundamentally change healthcare—and that the CIO is responsible for that change.



*Upcoming Events continued*

**October, 26**
*CHRISTUS Health on Wireless Clinician Tools*
*(hosted jointly with HIMSS)*
- Derrick Nelson, MD, CHRISTUS Spohn Hospital, Corpus Christi, Texas
- Cathy Duffy, RN, BSN, manager, Clinical Applications, CHRISTUS Spohn Hospital, Corpus Christi, Texas

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***Scottsdale Institute Conferences 2004-2005***

**Fall Conference 2004**
Sept. 30-Oct. 1, 2004
Partners HealthCare
Boston

**Winter Conference 2005**
Feb. 3-4, 2005
Intermountain Health Care
Salt Lake City and Park City, Utah

**Spring Conference 2005**
April 20-22, 2005
Camelback Inn
Scottsdale, Ariz.

**Fall Conference 2005**
September 15-16, 2005
Spectrum Health and Trinity Health
Grand Rapids, Mich.