



SCOTTSDALE INSTITUTE 2019 CHIEF INFORMATION OFFICERS SUMMIT

Enabling the Future: Self-Service, SaaS, Mobility, Cloud

October 23-24 | San Antonio

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Executive summary

The Scottsdale Institute convened 15 chief information officers and IT executives in San Antonio for the SI 2019 CIO Summit on October 23-24. These executives gathered to share strategies, concerns and insights on the theme of “Enabling the Future: Self-Service, SaaS, Mobility, Cloud.” Attendees represented leading academic medical centers, multi-regional health systems, rural hospitals and clinics from across the nation.

Summit participants

Scott Dresen, SVP & CTO/CISO, [Spectrum Health](#)

Lynn Gibson, VP & CTO, [CHRISTUS Health](#)

Kevin Hamel, CISO, [Baystate Health](#)

Sony Jacob, CIO, [SSM Health](#)

Mark Lantzy, CIO, [IU Health](#)

Jonathan Manis, SVP & CIO, [CHRISTUS Health](#)

Kathryn McClellan, SVP & CIO, [Froedtert Health Inc.](#)

Heather Nelson, SVP & CIO, [University of Chicago Medicine](#)

Cecilia Page, DNP, CIO, [UK Healthcare](#)

Shez Partovi, MD, Worldwide Head, Healthcare, Life Sciences, Genomics, Amazon Inc., [Amazon Web Services \(AWS\)](#)

Jon Russell, former SVP, CIO, Analytics & Innovation, [John Muir Health](#)

Paul VanAmerongen, VP & CISO, UW Health

Joel Vengco, SVP & CIO, [Baystate Health](#)

Laisy Williams-Carlson, CIO, [Bon Secours Mercy Health](#)

Mark Zirkelbach, CIO, [Loma Linda University Health](#)

Organizer

[Scottsdale Institute](#): Janet Guptill, FACHE, CPHIMS; Cindy Mendel; Gordon Rohweder; Cynthia Schroers; Shelli Williamson; Janice Wurz

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[Impact Advisors](#): Dan Golder; Lydon Neumann; Andy Smith; Pete Smith

Writer: Dan Golder

Moderator: Lydon Neumann

What will IT look like in the future?

To set the stage for the SI 2019 CIO Summit, Lydon Neumann, VP, Impact Advisors, kicked off the discussion with these questions for the CIOs and other IT executives present:

- » How will our IT systems look in the future?
- » What will our CIO role look like in the future?
- » Who are our new partners & collaborators?
- » Why will we be competing for talent in a new way?

Linked to the future of healthcare IT is the future of Artificial Intelligence (AI) and Machine Learning (ML). As these technologies evolve, their successful adoption is predicated on first, identifying appropriate use cases, and second, communicating to executive leadership the benefits of ML and AI as strategic options.

Market dynamics and healthcare's ability to adapt to the velocity of change in the digital age generally pose great challenges. For example, use of cloud services in other service industries is commonplace, apps are cohesive, intuitive and brand-driven, focusing on user-centered design, with analytics leveraged to personalize the digital experience for each person. Healthcare, in contrast, is only now beginning to adopt cloud services. Apps are fragmented, difficult to use, non-intuitive, lacking personalization and generally viewed by patients as having little value. Healthcare needs to change.

Still, healthcare's digital transformation is posing a leadership challenge as much as a technical one. Facilitating such rapid technology-driven change is the key in an industry that tends to change slowly.

DESPERATELY SEEKING PARTNERSHIPS

Fueled by these pressures, health systems are looking outward to strategic partnerships with healthcare and non-healthcare players, including big-tech firms. Unable to compete for talent with the likes of Google, Apple and Amazon, health systems are anxious to find effective and less costly ways to attract and retain healthcare IT talent.

"The value proposition of digital—the provider piece—is not there yet," said Heather Nelson, SVP & CIO, University of Chicago Medicine. "We tout the 'Ease of Practice' capabilities of digital—but this doesn't yet resonate with our providers. For example they don't see patients' self-scheduling as making it easier—they simply see their schedules changing, and wonder how they will get paid for eVisits and video visits."

Laishy Williams-Carlson, CIO, of Cincinnati-based Bon Secours Mercy, notes it's often difficult to emphasize the focus on consumers and not providers. "Providers need to understand that it's not about them—it's not about focusing on value for the provider, but value for the patient," she said.

"Currently the entire delivery and clinical models in healthcare are built around the provider, rather than the convenience of the consumer," said Jon Manis, SVP & CIO, CHRISTUS Health, Irving, Texas. "As an industry, we have been hesitant to let go and do something different because we have been very successful. But we need a new, modern, digitally-enabled, connected-care model. That means we need to think differently. It means we need to think about providing access to our services differently. Or someone else will."



“The value proposition of digital—the provider piece—is not there yet.”

– **Heather Nelson**, SVP & CIO,
University of Chicago Medicine

“Digital is not about technology—there’s an app for that,” said Nelson, “It’s not IT—it’s change management that’s the issue—it’s all about the change.”

BANKER’S HOURS ANYONE?

Manis drew a parallel: “Remember ‘banker’s hours’? At one time, you couldn’t go to your bank after 5:00 PM or on weekends. That notion is laughable today. As banking customers, we want access to financial services when, where and how it is most convenient for us, not the bank. Healthcare consumers are no different. They want access via smartphones anytime, anywhere and there is an expectation of immediate service. Healthcare venture capitalists are investing in mobility, self-service, remote services, health and wellness, and telehealth—about \$9 billion in 2018. They are not investing in hospitals and clinics. Though we will always need them for high-risk, low margin services, caring for unwell people in buildings is not the primary future of healthcare.”

Scott Dresen, who views technology from multiple perspectives as SVP & CTO/CISO at Spectrum Health, Grand Rapids, Mich. is concerned. “Disruption is coming from outside,” he said, “and we’re struggling to make the turn.” The group agreed that many of those disruptors will find a better—more convenient—way to deliver healthcare.

Culture plays a bigger role within healthcare than we think, declared Kathryn McClellan, SVP & CIO, Froedtert Health, Milwaukee. “It’s worlds apart. Primary care providers will adopt virtual visits, yet academia is different. There’s a deeply rooted culture that we need to change—where we have to focus on what’s most convenient for patients. Some of this is related to demographics, where older patients are more willing to wait. Yet younger patients will not, and as these demographics shift, academic physicians will need to change—the catalysts are the younger patients and that’s where the marketplace is heading.”

Indianapolis-based IU Health CIO Mark Lantzy summarized: “We’ve got some encouraging signs, but healthcare is simply not currently built to support digital health. Furthermore, not all clinicians are comfortable in a digitally-enabled environment.”

Accelerating healthcare transformation at Amazon

As a global healthcare executive at Amazon Web Services (AWS), Seattle, Shez Partovi, MD, believes perspective is everything and that sci-fi writer William Gibson said it all: “The future is already here, it’s just not evenly distributed.”



“Disruption is coming from outside and we’re struggling to make the turn.”

– **Scott Dresen**, SVP & CTO/CISO, Spectrum Health



“The catalysts are the younger patients and that’s where the marketplace is heading.”

– Kathryn McClellan, SVP & CIO,
Froedtert Health

Change management is priority one in this environment, he said, and should proceed in the order of the traditional “People, Process and Platform” triad.

“First, Amazon’s culture is ‘customer-obsessed,’” noted Partovi. “And

Amazon works backwards—they start with the customer and work back to the product, rather than starting from the product and working forwards. Amazon’s objective is to delight customers, and that includes AWS healthcare services.” Every meeting at Amazon includes an empty chair to represent the customer, reminding Amazon employees to always remember customer needs first and foremost.

THIRD WAY

“Amazon strives to invent on the customer’s behalf—and they are unwilling to accept ‘either or’ thinking,” said Partovi. “Instead, Amazon always asks ‘Can we get both?’ For example, in healthcare we often feel we have to choose between physician needs or patient needs, yet Amazon tries to find solutions that will satisfy both. For the Amazon Life Sciences division, this manifests itself in a feeling of nobility in what they are trying to do, and never forgetting the patients—the people—who are at the core of their work.”

Amazon focuses exclusively on long-term thinking. He said Amazon is incredibly patient, even if that means the company is misunderstood in the marketplace for a time, which Amazon is comfortable with. Writ large, Amazon’s strategy is to experiment and be “stubborn on vision, yet flexible on details.”

For Amazon, enabling healthcare transformation means making migration to the cloud easier and simpler. The company has partnered with VMware to help store, protect and optimize online data—which Amazon believes needs to be recognized as the key digital asset in healthcare, allowing not only health systems but ultimately customers to extract value from that information.

PREDICTING FROM FREE TEXT

Realization of that value will depend on robust analytics, AI and ML. AI and ML can facilitate operational forecasting as well as clinical prediction. For example, at Beth Israel Deaconess Medical Center, advanced analytics can “read” and extract medical knowledge from a free-text note, ultimately predicting OR (operating room) cancellations more than three days in advance and allowing care managers to resolve clinical and operational challenges before they disrupt the continuum of care.

Using an FDA-approved algorithm for clinical forecasting, Viz.ai (<https://www.viz.ai/about/>) can analyze a CT angiogram image and determine if a patient has had a stroke, initiating workflows and rapid treatment. The technology eliminates the traditional delays of waiting for an image to be read and accelerates quality patient care.



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By similarly leveraging AI and API-management solutions from companies like TIBCO (<https://www.tibco.com/>), GE has accelerated chest-tube placements for patients with pneumothorax using 3-D imaging (<https://www.ge.com/reports/breathing-easier-this-ai-is-helping-doctors-spot-life-threatening-lung-problems-faster/>); Cerner can predict the likelihood of CHF developing in patients 15 months in advance, preventing readmissions (<https://www.cerner.com/blog/4-stories-on-reducing-readmissions-and-decreasing-average-length-of-stay>); and hospitals can predict a patient’s Length of Stay (LOS) upon admission using EMR data and open source algorithms.

AWS Marketplace aims to facilitate data exchange in healthcare without the need for system integration by leveraging API-based interoperability strategies.

CLAIM JUMPER

“For example,” said Partovi, “Change Healthcare can predict if payors will reject a patient’s claim, and their logic is exposed in an API, available via the AWS Marketplace for anyone to leverage. Subscribers would be informed whether a claim would be accepted or denied—and, importantly, why it was denied—for \$0.50 per claim.”

Exposing data via APIs in this manner allows technology to be provided as a service to customers—functioning as a “digital-assets exchange.” Amazon meters and accelerates the exchange to the benefit of both developers and customers.

Similarly, customers can download the TIBCO LOS algorithm—without any exchange of data. TIBCO remains blind to the data, and customers simply leverage TIBCO’s digital asset to analyze their own data, with Amazon brokering the service.

On the consumerism side, Amazon wants to offer a “Digital Front Door” for patients and enhance the consumer experience using managed AI services.

EXPECTING THE BEST

“Your best experience becomes your expectation,” said Partovi. “Whether that’s OpenTable or Amazon or Google, those ‘best experiences’ set the standard for consumer expectations for healthcare.”

For example, he noted, “ZocDoc wanted to streamline the experience of health-insurance registration for patients. Their solution is to simply hold the insurance card to a smartphone’s camera, while ZocDoc scans the image, extracts all pertinent information and uses it to

automatically complete the patient's insurance registration—with no typing or data entry involved. It's like handing the card to a front-desk clerk. This service is now available via API to anyone via AWS Marketplace."

Similarly, in the U.K. the National Health Service (NHS) call center uses Amazon Alexa technology to create a conversational engine for its call center. The same technology is available to anyone as an AWS service. It allows NHS to improve service, with 100% of calls answered on the first ring, and 42 percent of calls handled by the conversation agent.

The Alexa agent also incorporates a "sentiment analysis" that can determine if the person is getting irritated. If so, the software automatically bypasses the first tier and routes the caller to a person. Amazon's objective is to remove friction in the call and deliver the most delightful experience possible.

PRESS ME

Digital Therapeutics is another Amazon focus. According to Partovi, "This allows patients to directly leverage the Internet of Things (IoT) to enhance care. For example, the startup Propeller (<https://www.propellerhealth.com/>) has developed a sensor on asthma inhalers that can remind patients if they have not pressed the inhaler button twice a day as prescribed. Their data shows that this can enhance a patient's compliance with their prescribed dosing regimen 2.5 times more than the national average."

The same data can predict health events such as ED admissions. Propeller's device can tell if an asthma patient has taken a rescue dose and can preemptively redirect the patient from urgent to elective care perhaps, for example, by notifying parents to bring their child in for a doctor's visit.

It's possible to build personal prediction models as well, leveraging GPS (global positioning system) location data to correlate ozone and pollution indices, barometric pressure and patient activity to forecast the likelihood of an asthma event. Such technologies create "personal intervention plans" and better allow patients to self-manage their lives. Every part of the value chain wins—payers, patients and pharma—all value converges.

VANISHING THE KEYBOARD AND MOUSE

Notwithstanding such innovations, Amazon aims to proceed carefully, said Partovi, to avoid the perception they're "peering over your shoulder." Amazon says it wants to establish trust with providers.

"It's all about improving lives," he said. "Amazon would like to remove the keyboard and mouse from patient exam rooms."

The group commented briefly on Amazon's potential role in digital health.

Said, CHRISTUS' Manis: "Shez said a lot of important things, perhaps the most important that Amazon is customer-obsessed, and we are not." Cecilia Page, DNP, CIO, at Lexington, Ky.'s UK HealthCare, wondered if they are the disruptors. "Will they eventually move in to directly providing healthcare services? They will gain strength, and then possibly become different from what they are today—will that flip someday?"

Manis summarized many participants' thoughts: "Amazon has figured this out for other parts of our lives already—they know how to delight their customers because they are passionate about the customer experience. There is an important lesson there for our healthcare industry."

Case study: CHRISTUS data center

You know it's a gathering of CIOs when a Summit highlight is the tale of the evolution of the CHRISTUS Health data center. Lynn Gibson, VP & CTO at CHRISTUS, presented a compelling case study of the data center, whose history reflects the evolution of healthcare IT itself.

Built in 2007, CHRISTUS expanded the center by 20,000 sq. ft. in 2011 and by 2013 had converted it to 35 percent virtualization. From early on, it suffered from a lack of standardization, with multiple vendors and institutional contracts.

"We didn't see a vendor we didn't like," he recalled. "For example we had inherited five separate contracts from Dell—nothing was centralized. At that time our clinical users were used to four-to-five-hour system downtimes for software patches and yet we rarely got a complaint—we simply provided little perceived value to the organization."

They knew they had to do something. "We realized we needed to do better and began to change—we added Imprivata's (<https://www.imprivata.com/>) Tap-n-Go, which was well accepted by physicians and we went from major outages every day to only a few short outages a week—maintenance was soon under 30 minutes, and user attitudes and expectations has switched," said Gibson. The strategy worked: "We recaptured 80 percent of our data center floor space as we became 96-percent virtualized," he said.

ALWAYS-ON ENVIRONMENT

Still, Gibson knows bigger waves of change are on the horizon. "Now is not the time to relax. We're sitting on a sleeping giant—and we are about to be behind if we don't start moving quickly. We're now looking at an 'always on' environment, where High Availability is not a DR (disaster recovery) strategy, but a customer expectation."

That's not all.

"We're also shifting to an operating expense-funded model from a capital-funded model, and focusing on contract management has become a priority. The convenience of the customer is the new strategy—and customer expectations will drive our new delivery model," he said.

Competition will surely change as well. Said Gibson: "Optum, Walmart, Amazon, Berkshire, United Healthcare—they'll all be competitors, and we'll need a new roadmap to compete. We'll have different presentation, platform, application and data layers; data may exist in four or five different locations; and we'll need to assemble and present that data to users on a variety of devices. Our paradigm is changing, and we'll need to change along with it."



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– Lynn Gibson, VP & CTO, CHRISTUS

CKO—NOT!

Lantzy agreed: “We need to evolve, or we’ll be marginalized to the role of ‘CKO’—the chief ‘keep-the-lights-on’ officer—that’s table stakes in today’s environment. We need to be the catalyst to change.”

“We struggle to partner with non-healthcare organizations and they don’t know how to partner with us,” said Manis. “We need to talk about and develop these skill sets—we can all work with healthcare consultants, vendors and payers. But we tend to keep innovative technology companies and start-ups at arm’s length, and that’s to our detriment. We need to learn to partner with external companies.”

Technology geeks step aside for the consumer strategists. “CEOs don’t want to hear about routers or servers—they want to hear about how we’re helping to engage and delight customers or improve outcomes,” he said.

Digital health

Digital health continues to advance enabled by AI and ML, telehealth and tele-monitoring, consumer mobile applications, and connected biometric sensors and consumer wearables.

IU Health CIO Mark Lantzy kicked off the digital-health discussion. “At Indiana University, we view digital health as an enabler for our vision of making our home state a healthier place, by expanding programs for at-risk patients and building out a statewide health system that addresses the essential health needs of our community.”

Achieving this vision involves focusing on population health and community health, growth of clinical services and continued improvements in quality and access. Innovation generally and digital health in particular will enable the vision.

While digital health seems to defy definition, Lantzy views it broadly as the application of technology to managing an individual’s or population’s state of physical, mental and social well-being. He offered some guiding principles:

- » Align digital health initiatives with strategic objectives;
- » Establish key performance indicators and objectives in advance of implementation;
- » Maintain a focus on people and process components of any implementation including, in some cases, the alignment of incentives and goals; and
- » Establish and maintain a governance structure to limit duplicative initiatives and facilitate expansion of initiatives that meet expectations.



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DIGITAL HEALTH WINS SO FAR

Indeed, there are areas where digital-health initiatives are meeting or exceeding expectations, he noted:

- » Remote monitoring of patients with congestive heart failure to prevent readmissions;
- » Use of health registries and integration of care workflows within the EMR and alignment to physician incentives; and
- » Application of telehealth to improve access to behavioral health services.

The jury is still out on some digital-health initiatives or “experiments” as he calls them, such as in patient engagement, wellness (smoking cessation) and post-acute-care collaboration.

Success in digital health requires prioritization; with multiple concurrent programs, it’s difficult to tease out cause and effect. Lantzy concluded by quoting Rick Howard, VP, Research at Gartner: “There is nothing artificial about Artificial Intelligence—there needs to be a partnership between humans and technology to be successful.”

The evolution of healthcare, consumerism and the CIO role

“Consumerism and digital are the new focus—rather than traditional healthcare delivery,” said Joel Vengco, SVP & CIO, Baystate Health, Springfield, Mass., in opening the subsequent Summit discussion on consumerism and the evolution of the healthcare CIO’s role. “This should dictate our structure going forward. Some of this seems simple as it’s already in our everyday lives yet it’s hard for us to bring to patients.”

Again, a customer-service focus demands a new healthcare paradigm. “We can no longer separate technology from operations,” observed Manis. “The truth is that every industry is a tech industry. Healthcare is just slow to realize it. To be successful, we need a different mindset and a revised care model—we need a model designed for the convenience of the service customer, not the service providers.”

Maybe a new org chart for starters? “We need to have a dialogue about where the lines of responsibility are. We tend to step on each other’s toes—we’re all dabbling in the same things and there is significant overlap. That leads to confusion and contention. Other industries typically don’t have Chief Experience Officers, for example, because the experience is the foundation of their successful business operations. As CIOs we need to clarify and understand our leadership role and step forward—we need progressive thinking to help lead and enable our organizations to better care for those we exist to serve,” he said.

SHADOW IT

Nelson expressed concern that CIOs are losing control of IT. “It’s clear we’re now being challenged by Digital Health—and yet others are leading the charge—we’re seeing this also with ‘Shadow IT’ and perhaps our control is being distributed and potentially challenged. Is there a risk in giving up assets and direct control of the team to a third-party?”

Perhaps it’s a matter of perspective. “I’ve tried to foster ‘Shadow IT,’” said Lantzy. “We’ve started the concept of a business-managed application—we’ve intentionally enabled information technology that is managed by business owners.”

Or balance. “We’ve put in standardized control,” said Page. “Our partners have control of the business area, but we maintain standardized control of the technology layer.”

Vengco agreed with the balanced strategy. “These players can fill in the gaps—we have a bidirectional partnership with Cerner, based on a contractual foundation, where their focus is to help increase our tertiary care. Data is an asset of ours, and a cornerstone of success for the future. How can the use of data support our patient care and a robust engine supported by Cerner contribute to that strategy?”

LET’S THIRD-PARTY

“We need the third-parties as we won’t have the money to do it for ourselves, or they will do it for us. It’s ‘external disruption,’” Vengco said.

At least one CIO believed third-party partnerships are keys to success. “To be able to grow we have to leverage partnerships,” said Sony Jacob, CIO, SSM Health, St. Louis, Mo. “Right now, we have Population Health initiatives in four states, and to help with standardization we partner with third-parties to help us with care management, delivering technology, people and process.”

The CIO role must evolve along with digital health. “The time is coming when we as CIOs will need to reinvent ourselves—we have an opportunity to define the problems we can help solve. The top layer of IT is effectively a ‘consultancy layer’—helping to define key problems with our business partners, and then to help define the outcomes and then the technology. Yet all too often we start with the technology, we need to change this. We have the opportunity to change the dialogue and to talk about problems and solutions and not the technology—let go of the platform—and become high-level consultants to the executive team,” Jacob said.

“The idea of IT being a consultant has merit,” agreed Lantzy. “It helps eliminate the push-pull argument. We need IT people to be genuinely seen as consultative with business partners.”

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MOVING THE NEEDLE

“For us at [California-based] Loma Linda University Health, crucial conversations weren’t happening,” said Loma Linda CIO Mark Zirkelbach. “So we created ‘Rapid Cycle Deployment Teams’ to figure out how to get a strategy implemented, for example, changing our physician schedules to accommodate video visits. These teams have continued to focus on other issues like capacity management, ED boarders and consumerism—and this momentum has been critical in order to remain competitive in our market. We can now move the needle in ways we couldn’t before.”

Vengco asserted that information must be the focus for any CIO evolution. “What’s the asset we need to protect and innovate? It’s data and information, and ultimately you need to be an informaticist, especially as our data becomes more interoperable, more liquid. Our future will truly be about information, we [as CIOs] need to be the stewards of our organizations’ information assets,” he said.

Williams-Carlson underscored the concept of innovation: “We’re seeing innovation centers getting created outside of IT. Our role as CIOs now is to be an influencer over innovation—helping to solve business problems by applying people, platform and process.”

Froedtert Health’s McClellan agreed. “We have a separate innovation group—our CEO felt innovation was stifled somewhat by IT. Now the innovation group is porting ideas back to IT, and we need to think about how to operationalize and manage those ideas.”

IDEAS & INNOVATION

There are no bad ideas. “All ideas go through a process of review, where we ask, ‘Does it have a return?’ Some investments have done well, some have not,” McClellan said.

“Ideas exist [everywhere] in healthcare,” said Jacob. “We see innovations officers that have great ideas but can’t operationalize them—the idea is there, but that’s not enough. If you set up an innovation center you also need to set up who will operationalize it.”

“Innovation” was a hot-button issue for the CIOs.

“I’m not sure we need an ‘innovation center,’” argued Manis. “Let’s start with an ‘adoption center.’ Most of what we need to do is already being done in retail and hospitality services—other industries have figured it out—we don’t need to innovate, we simply need to figure out how to

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adopt what others have already created. What if I text a patient and thank them for their business? My dry cleaner does that—why would we consider that ‘innovation’? Yet in healthcare, this would be a radical idea—we need to change our mindset.”

WHERE FAILURE’S OK

Others see value in such centers. “An innovation center has value as an environment where people can fail—and this is needed in healthcare, where failure is typically not acceptable with lives at stake. We need to have a channel to take ideas and collide them with reality,” said Vengco.

“Froedtert has a website to rank physicians, with marketing managing it,” noted McClellan. “We also have a Chief Experience Officer—not from healthcare but from banking—who thinks about the customer experience, a concept our organization struggles with. We’re still confused about what ‘the consumer’ means and what we need to deliver. Executives ask, ‘Will consumers really care?’ Yet we simply need to go down the path and find out.”

Jacob agreed. “The Chief Experience Officer is the closest we’ll get to ‘changing the chassis.’ We need to build a consumer-centric chassis. The reality is that other industries have transformed. Either share-holders have required it or private equity changes it, yet non-profit healthcare has survived without that accountability.”

Manis: “Things will change when the CEO is the Chief Experience Officer. And while we wait, competitors are capturing our market.”

“Smart-sourcing” IT of the future

Jon Russell, former SVP, CIO, Analytics & Innovation, John Muir Health, made a compelling case for building innovative partnerships as a way to build scale without adding brick & mortar.



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Recently, John Muir made a strategic decision to partner with Optum—an example of a partnership addressing the traditional “build-versus-buy-versus-invest” conundrum.

“Our largest competitor was 21 percent less expensive than we were,” he said. “To remain competitive we had to find a way to cut into that 21-percent delta, but our analysis showed we had significantly higher administrative costs—and a good portion of that was IT costs. We’re also a small system, so we couldn’t spread our administrative costs over 15 hospitals. We had to spread them over two.”

John Muir leadership realized it called for a much broader partnership than traditional outsourcing. “This took a lot of conversation—there was concern about culture and how this might affect John Muir—yet we ultimately decided that if we were going to remain independent, and also reduce administrative services costs, that we needed an ‘out-of-the-ordinary’ solution—and that became ‘Smartsourcing’ with Optum,” explained Russell.

SHARED LEADERSHIP MODEL

Trust was an important factor. “Some were concerned about competition should Optum decide to enter our marketplace, yet we determined we’d rather have them come in as a partner than as a competitor. Our strategy focused on each partner doing what they do best, and focusing on those core competencies,” he said, adding, “This is true ‘smartsourcing,’ and it is truly a partnership. Our senior executives are still actively engaged—it’s not ‘hands off’ outsourcing as in ‘please take this I don’t want to think about it’. Rather it’s shared leadership and a re-badging and transfer of many of our administrative employees and their associated functions to Optum.”

The partnership offers John Muir access to technology it wouldn’t otherwise have. “One of the direct benefits to John Muir is that we’d gain access to Optum’s robust analytics capabilities. They have the largest data set in the country, and we now have access to that data and the ability to utilize that knowledge to improve our population care management. While we realized there would be a significant operational savings on Day 1 from some of the staffing changes, it’s really that much larger care-management upside potential, rather than strictly the savings for administrative services, that was enticing. Realization of these gains would be predicated on effective execution of the recommended care-management protocols, but we felt this was attainable, and the opportunities inherent within the partnership became very compelling,” said Russell.

“Our risk to John Muir then becomes an execution risk—we and our leadership team have to execute on that upside potential. We’ll need to be able to change our culture to drive this value for care-management, yet that’s the challenge in front of us, and the rewards are significant.”



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MARRIAGE OF RISK-TAKERS

Risk is a two-way street in such partnerships. “There is also risk for Optum,” Russell noted. “This is a new vertical for them, and they need to have John Muir become successful. The real efficiencies will be realized over time—staffing for example—where John Muir resources will be responsible for more than John Muir, and where over time natural staff attrition will allow the partnership to leverage less expensive Optum resources outside of the Bay Area. Over time, economies of scale will benefit both parties, and Optum is willing to take on that risk.”

BLAZING A NEW TRAIL

“Healthcare is the only vertical that’s not gone down this path—this is the only place to reduce costs other than direct patient care. As our margins became neutral—or negative—we needed to do this, and to manage the risk, in order to be successful and to remain independent. Optum also has to look at this differently—they need a softer touch—there’ll be cultural adjustment on both organizations in order to make this work,” he said.

“Optum sees this as a significant potential market for small and mid-sized health systems. They need it to be successful, and they feel they can earn a return over the long term. It has to work within the marketplace—and it has to work for both partners. Optum can’t simply subsidize John Muir and then not have it work elsewhere or not support others to the same level. Both organizations need to be successful for the partnership to work,” Russell said.

Healthcare must change. “We need to be willing to look at models that are different in order to succeed. I don’t think we can continue to have one-off, non-core competency silos and still continue to drive costs—you need to partner to truly drive cost down.”

CRUCIAL CONVERSATIONS

John Muir included in its contract with Optum a specific “unwinding” strategy, which required difficult negotiations. “It wasn’t easy, but it needed to be discussed. We wanted to manage the ‘divorce risk’ as much as you possibly could—it’s very complex and yet it’s contractually well-defined. It’s something we felt we needed to consider in order for both parties to feel comfortable,” said Russell.

“One other key item is that there is very well defined, shared governance. Optum doesn’t set strategy—they have a voice and a seat at the table, yet it benefits both sides for us to collaborate on strategy. They can’t make changes without the approval of the shared governance. Our Chief

Strategy Officer still lives at John Muir but has access to Optum materials and resources. There's going to be more support because of that relationship. Optum has committed to being a true partner in this relationship, and this will be reflected in them coming to the market with a much more collaborative approach," he said.

Spectrum Health's Dresen said healthcare executives must open their eyes to a new reality: "We need to be realistic with the partner ecosystem. It's inevitable so we need to embrace it, yet our complexity won't go away. We may become system integrators [rather than implementers] and that may mean things will get harder, not easier."

The John Muir/Optum deal may be an inflection point, said Manis: "We'll need to watch this very closely—this may represent a major change and a significant disruption for healthcare."

Workforce of the future

An evolving healthcare market also means an evolving healthcare workforce—beyond merely the CIO.

"When Bon Secours Mercy Health went through our merger we knew our leadership structure would not be a 'Noah's Ark' approach with two of everything," said Williams-Carlson. "And yet we also made a commitment to continue to serve our communities—so finding the right talent to fill our leadership roles was critical. In addition to selecting the best leaders for traditional roles in information and technology, we also created new roles like the VP of Digital Solutions to work with the VP of Strategy."

The IT workforce generally needs to transform its skills and that means significant investment in training and education. "Our own IT staff lack the skills needed to enable change," noted Baystate CISO Kevin Hamel, "We need to hire fresh thinking and train them on healthcare." Summit participants agreed that finding, retaining and investing in needed talent has become a priority, and assessing "learning agility" in any IT staff role will be critical in building the team that will be most able to adapt and succeed in a rapidly evolving digital environment.

Collaboration really matters. "Concepts like 'Fusion Teams'—focused on creating active and continuous collaboration—are important," said Vengco. "They help us continually refine the definitions of terms like digital so as not to be defensive, but to continually take advantage of changing capabilities in that space."

Added Madison, Wis.' UW Health VP & CISO Paul Van Amerongen: "The CIO and CISO need to enable innovation while at the same time they need to keep operations running and secure—that requires collaboration and a constant evolution of roles."



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Conclusion: Evolution, change, partnerships and opportunities

As healthcare consumers continue to grow more sophisticated, health systems are under greater pressure to find new paths to innovation. Customers now expect innovation that parallels retail in both function and speed to market, and those expectations are forcing difficult conversations, fresh ideas and sometimes uncomfortable changes to healthcare’s status quo.

From the innovative disruption at AWS to the transformative “Smart Sourcing” partnership at John Muir to an evolving IT workforce, CIO Summit participants grappled with the consistent theme of change, and how we adapt to the demands of a rapidly emerging digital-health marketplace. Manis summarized the issue well: “If you want real change, you must be willing to give up something of value, or you will never really be able to change because you will always be constrained by that which you can’t give up.”

Ultimately our ability to rethink how we view ourselves and our professional roles will determine how we succeed as both consumers and health systems.

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