



CHIME and Spectrum Business convened a roundtable of executives from leading health systems around the country. Moderator Frank Cutitta, VP of DHX at CHIME, and Andrew Craver, VP of Enterprise Segment Marketing at Spectrum Business, joined panelists:

Sara Meinke

Senior Director, Enterprise Business Systems
Baptist Health System

Will Landry

SVP, CIO
Franciscan Missionaries Our Lady Health System

Mike Mosquito

Head of Enterprise Automation and Digital Transformation
Fox Rehab

Scott Smiser

CITO
Emory Healthcare

Tonya Reeder

CIO
Walter Reed National Medical Military Center

Kevin Bidtah

CIO
Evergreen Health

Christopher Scanzera

former CIO
AtlantiCare Health System and Lurie Children's Hospital

SUMMARY

Remote patient monitoring (RPM) devices. Smart hospital rooms. Ambient listening systems. Asset tracking devices. Smartphones, laptops, tablets, and more. All these technologies are becoming commonplace in the modern healthcare environment as organizations build out the Internet of Medical Things (IoMT).

These tools hold incredible promise for supporting more personalized, data-driven, and coordinated care. But they are also placing immense pressure on traditional networks and infrastructure, demanding a new approach to connectivity, scalability, security, and long-term business strategy.

Healthcare organizations will need to reexamine their approach to building and supporting the infrastructure to make the most of their investments in cutting-edge technologies, including the AI-enabled tools that are poised to change the game for patient care.

Together, this roundtable of experts discussed how to address some of the most pressing challenges in infrastructure development, including deciding on hosting options, addressing gaps in connectivity for remote patient care, and planning for a device-driven future in the hospital and in the community.

“We are at such an important inflection point in digital development, where healthcare organizations have to decide how they’re going to take on the next two, five, and ten years of infrastructure management,” said moderator Frank Cutitta, VP of DHX at CHIME. “There’s no more room for watch-and-wait tactics. Patients, clinicians, and executive leaders are all demanding more, so now is the time to make it happen.”

A RENEWED IMPERATIVE TO MAKE INFRASTRUCTURE A TOP PRIORITY

Fundamental infrastructure development surged in the early 2010s as EHRs started to come into vogue, then settled down somewhat as organizations refocused their efforts on leveraging the systems they had just built.

Post-pandemic, however, a new wave of devices has started to take over, spiking demands for capacity and connectivity. And with AI on the horizon in a big way, health systems are finding that they can no longer solely rely on what they implemented five to ten years ago.

“We really don’t know what AI is going to require from the industry, nor how much technical debt it might bring to organizations,” said Christopher Scanzera, former CIO of AtlantiCare Health System and Lurie Children’s Hospital. “We don’t entirely know what the best practices are going to be for some of these things. But most of us have pretty deep experience with what hasn’t worked in the past. It’s going to be very important to plan ahead and pay attention to the concept of avoiding technical debt as we build.”

The pressure is on to find the right combination of being bold, innovative, careful, and budget-minded as organizations feel their way through this new environment, agreed Tonya Reeder, CIO of Walter Reed National Medical Military Center.

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CIO
Walter Reed National Medical
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“Our leaders are getting younger and more agile. They don’t want to be late adopters anymore. They want to know why we’re not doing everything we can do, and why we’re not keeping up with the hospital down the street,” she said. “It’s tough, because as a government organization, we love to send people in a soda can to the moon, because it’s the cheapest thing to do. But we need to think differently and more strategically as we plan for a very different future.”

For many health systems, that means taking another look at how to prioritize infrastructure development while staying within tight budgetary restrictions in a time of increasing economic instability.

“We’re finding that as we pivot into LiDAR sensors, cameras, virtual nursing, remote monitoring, all the gear that’s going into rooms ... we need all these things to be available 24/7,” said

Scott Smiser, CITO at Emory Healthcare in Georgia. “As CIOs, we need to be absolutely certain that we’re going to have the budget and the resources to treat all of that new infrastructure as a critical spend — a minimum to keep the organization functioning. That’s a big perspective shift from the traditional view of IT as a cost center.”

His team at Emory was able to secure some funding from the board and show a 2.4-times return on that investment. “We used that technology spend to strengthen the overall business and make it profitable in a way previous attempts hadn’t been able to accomplish,” he explained. “When you show the value, that really changes perceptions about what is possible.”

THE DEBATE IS BACK: ON PREMISE OR IN THE CLOUD?

Interestingly, as CIOs and CTOs revisit their infrastructure budgets, they’re also taking a second look at where they want to center their efforts: in-house or in the cloud. A wholesale shift to cloud resources has seemed almost inevitable as health systems come to terms with the sheer amount of compute power required to run AI-enabled services, but that’s not actually the case, argued some of the attendees.

“We all want the ‘magic wheel’ that AI and the IoMT can provide, but it costs a lot to make it happen on someone else’s infrastructure — and that cost is going to continue over time,” explained Mike Mosquito, Head of Enterprise Automation and Digital Transformation at Fox Rehab. “In contrast, if I bring it in-house, I can capitalize on the hardware that I need to run my AI engines — one time and I’m done, instead of continually devoting a huge amount of my operating budget to cloud providers every year.”

A lot of the managed services providers are recognizing that this shift is happening, he added. “CIOs are starting to ask for it. They want to stop taking hits to their operating budget and be able to own more of the process over a longer period of time, because they know this is just the beginning of what AI is going to mean for their organizations.”

While there may be benefits to going this route, organizations can’t skip on the investments required to truly take full ownership of their digital future, cautioned Sara Meinke, Senior Director of Enterprise Business Systems at Baptist Health System based in Jacksonville, Florida.

“You just have to make sure you have the horsepower to run it,” she asserted. “If you’re not making enough of the critical investment to elevate the foundational aspects of your infrastructure, you’re not going to be successful. You need a solid chassis, built with intent, to make sure you’re putting yourself in an exceptional position to accelerate your environment.”

THINKING BIGGER THAN THE CAMPUS AS CARE MOVES INTO THE COMMUNITY

Whether rooted on the premises or hosted in the cloud, the infrastructure conversation is expanding in more ways than one, especially for healthcare organizations seeking to become more connected to their communities through remote monitoring and home-based care.

“As a country, we’re probably not going to keep building tons more inpatient beds,” noted Will Landry, SVP and CIO of Louisiana-based Franciscan Missionaries Our Lady Health System. “The financials are changing, and the technology is getting good enough that we can start moving lower acuity needs into other settings, particularly into the home.”

That means we must get a lot better about transfers, care coordination, and remote monitoring, he advised. “And it means we have to get a lot better about understanding what’s available in the community from a connectivity perspective and supporting development outside our own walls.”

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“Everyone is used to living on campus and managing a sandbox that’s very defined and limited in scope, but we have to think bigger: bigger than the campus; bigger than the providers working from home,” agreed Smiser. “We are trying to support a whole community now, in their homes and at their workplaces. That means we have a degree of responsibility to ensure that people have connectivity in those places if we want them to be able to use their devices and stay engaged when they’re not under our roof.”

The healthcare system can’t continue its push to address the social determinants of health without better connectivity in hard-to-reach areas, added Kevin Bidtah, CIO of Evergreen Health in upstate New York.

“Digital health is becoming a literal lifeline for many patients, especially those who can’t afford to shop around because there aren’t many other options,” he said. “Without strong networks in these communities, we’re not going to solve for the problems that we’re seeing with the social determinants of health.”

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Rural connectivity is of particular concern for many of the leaders on the panel, whose organizations serve many remote and socioeconomically challenging communities.

“In Georgia, when you go south of the Atlanta area, there’s no access in some places there — sometimes there’s not even a doctor or a hospital; maybe there’s one ambulance,” said Mosquito. “There’s certainly no reliable connectivity.”

Improving this inequity requires answers to tough questions. “What does remote patient monitoring look like for a population that’s already struggling to get care in the first place?” he asked. “Who’s paying for the infrastructure to make all our big ideas

about RPM a reality? If you’re in value-based care, you’re already taking on a financial risk for caring for these populations, and it’s not reasonable to ask that provider to take on more risk to build 5G towers, right? Someone else has to jump in on this if we want to take the next steps.”

State and federal entities have been working to bring better connectivity to areas like these, and so have companies with expertise in infrastructure development and strong partnerships with the health systems serving these populations.

“We’re engaged in a large scale build-out of rural connectivity, which gives us plenty of opportunities to look at how we can help solve these problems,” said Andrew Craver, VP of Enterprise Segment Marketing at Spectrum Business. “I don’t have an answer for the bigger picture questions, and I don’t think anyone does at this point, because healthcare incentives are still so complex given a lot of misaligned and competing priorities. But it’s something that we’re actively working on with partners, in terms of getting to where we need to be in every community.”

PREPARING FOR A FULLY CONNECTED FUTURE OF SEAMLESS CARE DELIVERY

As organizations make progress with forming the foundations of next-generation infrastructure, they are looking forward to the new capabilities in store for their clinicians, administrative staff, and patients.

For example, several participants expressed enthusiasm for ambient listening technology that turns every room into a smart room.

“I personally think it’s going to radically change how we’re using technology in patient relationships,” Landry said. “As much as I’m a technologist, I don’t want to spend all my time using technology and neither do my clinicians. I want it to happen seamlessly, so the focus stays on the patient. Ambient listening is going to make that happen in a major way.”

Meinke agreed that the technology is going to be instrumental in changing the way clinicians and patients share and access information. “Our goal is to use these tools to create a truly supportive and healing environment instead of just a place where people stay while things happen to them,” she said. “I’m also focused on personalization and making sure we have the right capabilities in place for every patient that comes through our doors. I want to be in a world where we can recognize every patient and serve up relevant, contextualized information to the provider without the hunt-and-peck that happens today. AI is going to be a big part of that, so we’re looking forward to exploring how to develop that ideal state.”

To achieve these goals, senior leaders will need to take a strategic approach to infrastructure development decisions, from choosing a hosting strategy and establishing technology partnerships to designing high-value programs that connect the entire community.

“The big thing is not to do tech for tech’s sake,” Smiser advised. “It’s not about collecting shiny toys, but about changing the patient experience so that they feel better about having been cared for in our organization. If you take a considered approach and do your due diligence, you’re going to reap more rewards in the long run and create the proof points you need to build momentum toward something greater.”

