

HOW CONNECTING DISPARATE COMMUNICATION SYSTEMS CAN IMPROVE PATIENT OUTCOMES



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High-performing healthcare systems are adopting enterprise communication solutions to eliminate silos of information, improve patient care during critical situations, and make the most of their IT budget.

Historically, healthcare executives have turned to departmental point solutions to solve communication challenges. For instance, if neurologists asked for a secure way to communicate with colleagues in the department, the head of neurology would research and buy a technology solution for that specific department—problem solved. “There is a simplicity in that approach, which is why people start there and offer a point solution,” says Brian Edds, vice president of product strategy at Spok, a Springfield, Virginia-based global company that offers a comprehensive suite of critical communication solutions in healthcare. However, it doesn’t take long for people to realize this strategy’s limitations, Edds says. “If everyone purchases a point solution, then no one can communicate effectively across departments.”

Having the ability to communicate not only across departments but also among buildings, campuses, and cities is now a vital component of healthcare. The Affordable Care Act has defined requirements for the industry to improve outcomes, lower costs, and increase access to care. To meet those objectives, healthcare organizations are adopting initiatives like accountable care organizations and patient-centered

medical homes, which aim to increase collaboration and strengthen patient care. Other accreditation bodies are focusing on improving patient safety and outcomes. One of The Joint Commission’s National Patient Safety Goals, for example, concentrates on the need to quickly deliver important test results to the right staff member.

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—Brian Edds, Vice President of Product Strategy at Spok

As the industry is transitioning to value-based payment models, bundled payments and capitation approaches are becoming more common. This means the days of a patient receiving separate bills from a physician, a radiologist, and a hospital after an emergency department (ED) visit will eventually end,” says Edds. “Going forward in a value-based reimbursement



BRIAN EDDS
Vice President of
Product Strategy
Spok



world, there will be only one fee that is being paid for multiple care procedures and services, so collaboration among the physicians and everyone else on the care team is really important.”

This level of collaboration requires critical communication capabilities that are more integrated than point solutions can provide. Focusing on an individual department’s communication needs, such as scheduling and secure texting, and then trying to patch every department’s systems together is shortsighted. Healthcare providers should be looking for an enterprise solution that connects people and workflows across the organization. This goes beyond clinical communications among physicians, nurses, and nursing assistants to include administrators, facilities staff, the contact center, referring physicians, and the patients themselves. In this fashion, healthcare organizations will be successful in reducing IT expenditures and getting critical patient data into the hands of the entire care team—not just one department—when it matters most.

Foundation of an Enterprise Solution

Every healthcare organization needs a messaging system that allows people to communicate with each other—whether it’s a phone system, interactive voice response system, or operator. There are also hospital technology systems, such as patient alarms and electronic medical records, that should be integrated into an enterprise communication platform.

The first step to building an effective enterprise solution is to define all the roles in the hospital, advises Edds. Identify the people you want to communicate with and include them in the solution. Look at technology last. “Generally what people find when they go through that journey is that there is not a one-size-fits-all solution from a device standpoint,”

KEY ADVANTAGES OF ENTERPRISE-WIDE COMMUNICATION SOLUTIONS

1. Maximize the dollar value spent on IT systems.

When you purchase point solutions, your per-unit cost is very high, Edds says. An enterprise system enables healthcare organizations to create economies of scale by addressing multiple communication challenges with fewer solutions. This removes the need for every department to have its own complete system, bringing the per-unit cost down. “It’s more cost-effective for an enterprise system, because you can use the same devices and directory for different workflows in other departments,” Edds explains.

2. Eliminate silos of information.

A departmental workflow solution may have worked in the past, Edds says. “But the reality is new reimbursement approaches rely on more care coordination, and communication between multiple departments, constituencies, and workflows is required.” If your focus is just on having a secure texting solution that allows physicians to text each other, then you are missing out on the benefits of texting for workflows like critical test results and physician-nurse communication. Organizations should be looking for ways to stack all of those workflows together, Edds says.

If you have multiple products where communications originate from, but communications are a secondary consideration, “you have to reinvent the wheel every time you build something,” says Jim Murry, CIO at Stony Brook University Hospital. explaining that with enterprise solutions you can build modules and connect the communication components you need for different functions and applications.

3. Improve quality of care.

One of the more complicated workflows in a hospital is a code STEMI (ST-segment elevation myocardial infarction). This patient usually arrives in the ED with symptoms of a heart attack and requires immediate surgery. The hospital needs to quickly rally a multidisciplinary team of 12 to 30 people that includes physicians, nurses, technicians, and anesthesiologists. STEMI response metrics are measured by door-to-balloon time, meaning the time between when a patient arrives in the ED and when that patient is in the OR receiving treatment. An average door-to-balloon time of 90 minutes or less is a core quality measure for The Joint Commission. Many hospitals find this metric hovers in the two-hour range, says Edds. But some hospitals have been able to cut their door-to-balloon time in half, from 120 minutes to 50 to 70 minutes, with enterprise critical communication solutions, says Edds.



FOUR THINGS TO KNOW BEFORE ADOPTING AN ENTERPRISE SOLUTION

Jim Murry, CIO at Stony Brook University Hospital, shares four pieces of advice for CIOs looking to adopt an enterprise critical communication system.

1. Look for software that is open architecture. "It's absolutely critical that healthcare organizations can interconnect with other applications," Murry says.

2. Invest in Wi-Fi as well as cellular. You should be able to move across the two worlds seamlessly. "We invested heavily in Wi-Fi and cell service," says Murry. That strategy gives his organization the flexibility to support communications across the entire campus, whether the user is in the lobby or the basement.

3. Make sure the platform is scalable. "Once this takes off, you may be surprised how many messages are going through the system at one time," Murry says. "You don't want to have one little server that can't handle the load and be forced to buy another server that doesn't connect."

4. Ensure the technology functions as desired. "Make sure the technology you are looking at functions the way you expect and need it to," Murry advises. He suggests asking for a demo and proof of concept, making reference calls, and even visiting a hospital that's using the technology so you can see it in action.

says Edds. "I can use a Samsung® or iPhone®, but that's not really the question. The question is how can I best enable critical results or a specific workflow? Start with workflows, and then pull back to technology."

Healthcare organizations should also establish a comprehensive list of contacts in an enterprise directory, Edds advises. "Sometimes things don't go as planned," he explains. "Having a single place to go to find out who everyone is in the organization and how to get a hold of them is important."

Jim Murry, CIO at Stony Brook (New York) University Hospital, agrees. Today, there are a number of ways to

communicate with people, such as email, pagers, Wi-Fi devices, and smartphones, and it takes work to build a directory of people that you want to communicate with, he says. "When you are doing one-offs, it gets to a point where maintenance and the credibility of the people in your directory become hard to manage." One key advantage of enterprise-wide communications is building that directory and having information on everyone in one place so you know how to communicate with somebody and which vehicle the person prefers. That is the foundation of your enterprise communication platform, Murry says.

Inside an Enterprise Messaging System

With a good directory as a solid foundation, enterprise communications enable a number of time-saving workflows throughout an organization. For example, at Stony Brook University Hospital, physicians and nurses will be able to communicate with staff securely and include valid, actionable information in a message. Previously, Murry explains, staff members used to have to call and have a conversation, often leading to unproductive telephone tag. We will be able to send details in a text message, and staff members can see whether that message was received and read. All around, there is better communication between nurses and doctors, and more opportunities for nurses to communicate without needing to meet at the central nurses' station. "Our focus is to help nurses spend more of their time in patient rooms," Murry says.



JIM MURRY

CIO
Stony Brook
University
Hospital



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Stony Brook’s communication system will help improve the speed of patient discharge, which can have a huge impact on patient satisfaction and length of stay metrics. “In our pilot program we are getting patients discharged earlier than ever before because we can message a physician that they need to do a consult before we can discharge the patient,” says Murry. The consultation takes place faster because the physician knows about it as soon as the physician’s action is needed in the discharge process.

Edds notes that some hospitals are also applying enterprise tools to support critical messaging such as code calls. For example, when a nurse hits a code blue button on the wall, it triggers a series of workflows. An alarm is sent to the operator; simultaneously, an alert message is sent to the code blue team members for that floor, comprised of physicians, nurses, and on-call specialists.

“The enterprise communication system blasts out a message to all of the people on that care team through a variety of devices,” Edds explains. “Some may have an iPhone®, Samsung®, in-house Wi-Fi device, or pager. They all receive an alert that there is a code blue.” At the same time, the operator can announce the code through the overhead paging system for an audible notification.

Enterprise-wide solutions that can connect providers across devices and settings are where healthcare messaging systems are headed, and this shift is being partially driven by consumers—just look at all of the mobile technology people use every day. “Three or even two years ago this wasn’t a big topic, but today in healthcare the communication infrastructure is the backbone in IT for a lot of strategies that you build upon,” says Murry. “Your messaging platform is going to be big. This is not to be taken lightly—it is a serious decision.” ■

Spok, Inc., a wholly owned subsidiary of Spok Holdings, Inc. (NASDAQ: SPOK), headquartered in Springfield, Va., is proud to be the global leader in critical communications for healthcare, government, public safety, and other industries. We deliver smart, reliable solutions to help protect the health, well-being, and safety of people around the globe. Our customers send over 100 million messages each month through their Spok® solutions, and they rely on Spok for workflow improvement, secure texting, paging services, contact center optimization, and public safety response. When communications matter, Spok delivers.