

qliqSOFT

Virtua Advances Healthcare
Efficiency and PHI Privacy with
QliqSOFT Secure Texting

A CASE STUDY

Case Study: Virtua Health System

BACKGROUND

Virtua is one of New Jersey's largest, non-profit health systems, providing comprehensive healthcare services. These services are provided through Virtua Medical Group which consists of physicians and clinicians, along with urgent care centers, hospitals, ambulatory surgery centers, and more. Virtua employs over 9,000 individuals and partners with a network of 1,400 physicians and other clinicians.

In addition to receiving a 4-star rating from the Centers for Medicare and Medicaid Services (CMS) for quality of care, Virtua has been nationally recognized by U.S. News & World Report as Best Regional Hospitals. Organizations such as HealthGrades, The Leap Frog Group, and Philadelphia Business Journal have honored Virtua with distinctions in overall patient safety, and employee satisfaction.

CHALLENGE

Like many hospitals and healthcare systems across the United States, Virtua used a pager system. In this one-way communication, messages were pushed to clinicians by nurses or Virtua's call center, but there was no way of knowing when messages were read or when to expect a response.

"Nurses might page a doctor five times without knowing if the doctor saw the message," said Erik DeLue, MD, Medical Director of Operations, Virtua Voorhees. "It was difficult to know the status of the message."

It was equally difficult for physicians to communicate with each other about patient care. Dr. DeLue offered an example. "If a physician is coordinating care for a patient with CHF (congestive heart failure), questions are directed to the cardiologist. If I want to change the patient's medication dosage, I would normally page the cardiologist and hope he or she sees it quickly, but that isn't always the case."

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Medical Director of Operations
Virtua Voorhees

And when Dr. DeLue is the one being paged? "The only way to know if it is urgent is to check in with the person who paged me, so I always stop what I'm doing to find out. Imagine that across 20 patients; it can really interrupt workflow."

Texting was a natural progression, but it presented a small problem for Virtua. "If you knew the doctor's number, you could text, but that isn't always secure," Said Dr. DeLue.

Tom Gordon, Senior Vice President, CIO at Virtua, said there were no known cases of staff texting PHI with non-secure SMS, but acknowledged we would have no way to know." "Virtua needed to find a cost-effective, easy-to-use way to provide care teams with

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prompt, concise and accurate two-way messaging necessary to deliver world-class patient care.

SOLUTION

Virtua set several security or critical path requirements in their search for a secure messaging solution:

- Strong end-to-end encryption
- Robust message monitoring and auditing
- Easy-to-use dashboard and installation
- Ability to remotely wipe
- Message acknowledgment

Protecting PHI is “the overarching goal,” said Chas Thawley, Assistant Vice President, CTO at Virtua , especially with the growing number of security breaches occurring in the industry. Many texting service providers run the risk for a breach to occur.

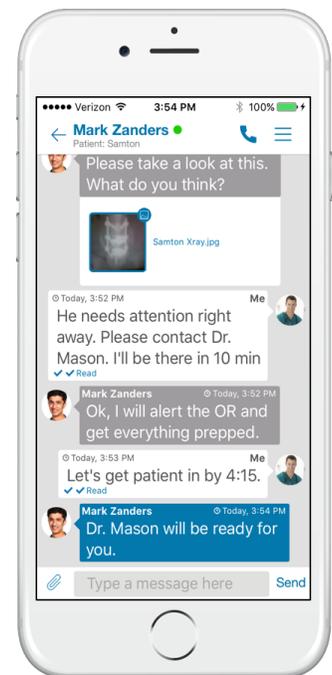
“We invested a lot of technology on securing our network, things that are required to meet HIPAA requirements and, in fact, exceed them,” said Gordon. Virtua also invested time and money on educating their physicians about the need for security. The remaining issue in that was texting, said Gordon.

Virtua wasn’t alone. Gordon recalled going to a conference where IT professionals and hospital administrators were talking about the need to “do something about texting.” But no one was acting because they weren’t sure what to do or how to do it. The Virtua team decided not to wait.

“We wanted to resolve the issue, but also provide a tool that allows for more efficient communication,” said Gordon.

Virtua’s search for a secure messaging provider eventually led them to QliqSOFT.

Messages sent through QliqSOFT are encrypted in transit, do not remain in the Cloud after they are delivered, and remain encrypted on the receiving device. Public/Private Key Encryption is used to protect PHI, so the QliqSOFT organization has no access to Virtua’s decrypted data at any time. “Only the client can access the unique keys when the user logs in,” said Thawley. “That’s important to reducing the risk of a PHI breach.”



Virtua chose QliqSOFT, a provider of HIPAA-compliant, secure texting and collaboration solutions for Healthcare.

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Encryption of data in transit and at rest is a key requirement to comply with HIPAA and HITECH. Since all sensitive data is stored in Virtua's systems, "PHI remains under our control," said Thawley. Should a device be lost or stolen (the most common cause of data breach), an administrator can remotely erase all data.

The versatility of the QliqSOFT application also allowed Virtua to implement it in a way that best fit their clinical workflows. Physicians use it on their phones, while nurses and call center staff use a desktop version – and all with the same single sign-on they use for other Virtua systems.

IMPACT

Virtua launched the QliqSOFT secure messaging platform in 2014 and has been steadily expanding its use. The improvement of paging was immediate.

"Nurses now know when their message was received," said Dr. DeLue.

With automatic read receipts, nurses always know in real time when a doctor has received and read a message in QliqSOFT. By using the **Message Acknowledgement** feature, nurses can also request a formal acknowledgement from doctors, and the acknowledgment is saved as part of the record.

"It says 'Delivered' and 'Read', so if there's no response, we can elevate it quicker," said Dr. DeLue. "That's built-in efficiency, but now there is accountability as well."

The amount and quality of information that can be sent through QliqSOFT also increases response time. For example, a cardiac cath team saves precious minutes by knowing ahead of time the age, condition, chief complaint and brief health history of an incoming heart attack patient, so they are better prepared when assembling at the ER.

"I'm more efficient in communicating with QliqSOFT," said Dr. DeLue. "That means I gain back hours each week and can spend more time with patients."

The rest of the Virtua team agrees, reporting a 15 to 20 percent improvement in response rate and overall efficiency. That means quicker response times, greater patient satisfaction and overall improvement in care. QliqSOFT secure texting has a positive impact on many of Virtua's quality metrics.

Tom Gordon estimates that once QliqSOFT is fully rolled out, Virtua will save physicians 2,400 hours a week, which translates to more time with patients.

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“The most common criticism you hear about healthcare, particularly in hospitals, is communication,” said Dr. DeLue. “Doctors need to communicate better, we need better coordination of care. This is a tool that allows us to do that.”

Following the adoption of Secure Texting, Virtua also opted to integrate QliqSOFT’s OnCall Scheduling solution in July of 2016. This service allowed individual departments to break away from traditional whiteboards and paper schedules. There’s also more transparency and control over who is on-call because QliqSOFT allows care staff to see and change the on-call list in real time.

“You can see who is active and on-call. You can remove yourself from the on-call list and, as a back-up, forward those messages to someone else,” said Gordon. “Even the smallest changes in efficiency really go a long way in the workplace.” Administrators were able to schedule clinicians from the online dashboard and users were able to view exactly who was on-call at a given time and message them directly from the mobile or desktop app.

Knowing which specialist is available can be a time-consuming process. With OnCall Scheduling this information is instantly available. Less time spent searching for an available clinician means more time with patients. In addition to being able to integrate with call centers, QliqSOFT’s OnCall Scheduling allowed admins to add scheduling preferences, emergency contact information, and other notes to a user’s profile.

ADOPTION & EXPANSION

With its initial rollout a success, Virtua is expanding the use of QliqSOFT across its network, aided by its popularity among physicians and staff. “QliqSOFT integrates easily with Active Directory and allows us to efficiently add and manage users while leveraging our existing authentication method and strong password policies,” noted Thawley.

“We roll out many new things, new technologies, to our doctors,” said Gordon. “With QliqSOFT, they’ve been actively asking for quicker access.” He also advocates for broader adoption across the industry. “Don’t hesitate to do it,” said Gordon. “Clinicians want it.”

“It feeds on itself, like Facebook,” said Dr. DeLue. “The more doctors who are on it, the more conversations you can have about patients, the more you use it. The clinical staff can have conversations at any time during the day about all the patients they are seeing.”

Gordon clearly sees a future where secure texting is the go-to communication tool for clinicians, both within Virtua and in the larger healthcare community. “It would be beneficial to clinicians and patients if all the hospitals in New Jersey used this tool,” said Gordon, imagining secure, convenient communication between clinicians across hospitals.