

CIO Guide to Modernizing Healthcare Communication



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Modern Healthcare Organizations Need Modern Communication

Patients have transformed their personal and work lives with digital technology, yet their healthcare experience lags. No other industry, particularly one as vital as healthcare, relies so heavily on outdated communication tools.

Visit any hospital today and you're all but guaranteed to find a perplexing dichotomy: state-of-the-art medical equipment and highly-trained, dedicated staff, alongside patients and their families using smartphones that have the power of supercomputers from just a few years ago. But look closer and you'll find that care team members and administrative staff are constrained by legacy communication tools that hinder real-time communication and impair the standard of care. In fact, many health delivery organizations (HDOs) still use pagers, landline phones, whiteboards, older devices and legacy messaging applications.

By prioritizing data integration, patient engagement and care team collaboration, healthcare CIOs can help deliver the best care, increase staff satisfaction, enhance patient experiences and significantly reduce IT and operating expenses. IT leaders can keep critical data safe and private while consolidating technologies within a single platform. Electronic health record (EHR) notifications, nurse call alerts, physician scheduling updates and patient engagement can be brought together seamlessly and intelligently, delivering context, accelerating workflows and improving care quality, leading to lower IT costs.

Today's cloud-based clinical communication and collaboration (CC&C) platforms remove the complexity of deploying modern communication solutions to both care and administrative teams, while easing the burden on IT. HDOs that have moved to real-time, contextual communication solutions achieve many benefits — read on.

The Security, Privacy and Compliance Imperative

Privacy and security concerns often are cited by HDOs as key barriers to adopting modern clinical communication technologies. According to an April 22, 2021 Pharmaceutical Technology¹ news article, “The uptake of digital health tools has been slow and limited despite their potentially revolutionary effect on the healthcare system.” By moving to real-time, contextual, Health Insurance Portability and Accountability Act (HIPAA) compliant communication solutions, HDOs can greatly improve security, privacy and compliance.

Organizational reluctance to adopt new communication tools flies in the face of how people adopt technology in their personal lives. While estimates vary, Pew Research says, “The vast majority of Americans – 97% – now own a cell phone of some kind. The share of Americans that own a smartphone is now 85%...” As the population becomes more tech-savvy and reliant on connected devices, the demand for using secure, modern communication methods in healthcare settings is rising.

The Messaging Dilemma

All too often, convenience trumps compliance. Among the threats to an HDO’s data, staff using their own devices to text patient information puts healthcare CIOs in a particularly tough spot. You don’t want to deprive your staff of a highly efficient tool like texting, but you can’t jeopardize patient data by allowing staff to text protected health information (PHI) using unsecure messaging or consumer-grade texting apps – even encrypted ones like iMessage or WhatsApp – on devices you don’t control.

According to the U.S. Dept. of Health & Human Services March 2022 Health Sector Cybersecurity report, “Cybercriminals and nation-states have engaged in cyberattacks against healthcare organizations for years,” In fact, HHS Secretary Xavier Becerra used his first-ever end-of-year message to warn of the “urgent need to remain vigilant against cybersecurity threats.” Dean Sittig, PhD at the School of Biomedical Informatics at UTHealth in Houston puts it best, “Cybercriminals try every hospital, every day; every computer, multiple times a day.”

1. Pharmaceutical Technology, “Cost, security and integration main barriers to adoption of digital health tools: poll”, April 22, 2021

IT has an enormous burden to locate and close security gaps before hackers find them. With HIPAA-compliant text messaging capabilities, CC&C solutions can address the gaping problem of unsecured texting, taking at least one threat off the table.

The ubiquity of smartphones has led organizations in every industry to embrace “bring your own device” (BYOD) strategies, bringing IT-managed applications, network access and data to users’ personal devices. CC&C solutions tailored to such BYOD strategies can help mitigate risks by giving care teams an efficient way to freely discuss patient cases and receive alerts, while preserving IT control and adherence to HDO policies. With the right solution, patient data remains private and encrypted, care teams stay productive and IT holds the keys — a win-win for everyone.

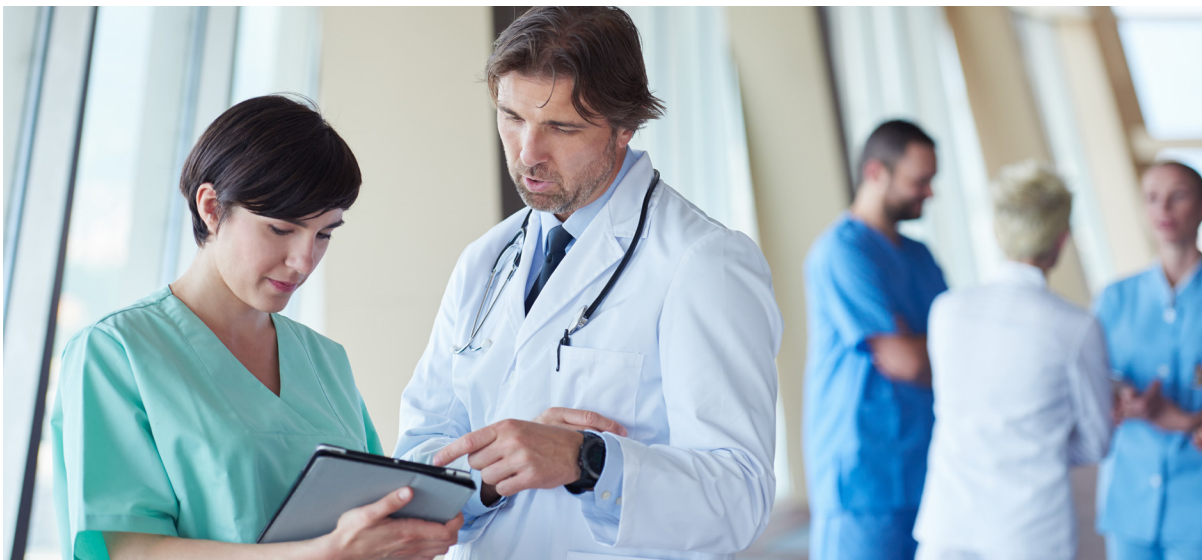


HIPAA-compliant Text Messaging

Short message service (SMS) text messages are not HIPAA-compliant, and they are easily hacked. Fortunately, today's CC&C solutions close that security gap with these crucial capabilities:

- **End-to-End Encryption:** Message exchanges are protected both at rest and in transit.
- **Self-Destructing Messages:** Messages can permanently self-destruct after a set amount of time (otherwise, patient data can live indefinitely on devices and phone company servers).
- **Message Archiving:** Even self-destructing messages can securely be preserved for discovery purposes in the event of possible future litigation.

The best way to ensure security compliance is to choose a CC&C solution that has earned credible third-party certification from an organization like the Health Information Trust Alliance (HITRUST). HITRUST certification enables vendors and covered entities to demonstrate HIPAA-compliance. It is based on a standardized framework designed as a risk-based approach to organizational security. The HITRUST Common Security Framework (CSF) assurance program combines aspects from common security frameworks like the International Organization for Standardization (ISO), the National Institute of Standards and Technology (NIST), Payment Card Industry (PCI) standards and HIPAA.



The Value of Real-time Contextual Communication

HDOs need to improve communication workflows to avoid missed connections and ultimately provide better patient care. In March 2021, Gartner®² forecasted, “By 2024, one-half of all healthcare provider digital transformation investments will focus on increasing situational awareness surrounding the patient and provider.”

Cloud-based CC&C platforms are central components of real-time communication. These platforms address bottlenecks in delivering care through automated, role-based workflows and provide a variety of ways to share critical information securely, anywhere via smartphone — using voice, text, images or video.

Additionally, management dashboards and analytics can help administrators understand who is using the platform and how. Administrators can see where adoption might be lagging so they can take corrective action and improve outcomes.

An integrated, cloud-based CC&C solution can surface data and alerts to the caregiver’s smartphone in real-time, where they can be viewed, shared, forwarded and acted upon. The ability to unlock massive value through faster treatment for stroke and ST-elevation myocardial infarction (STEMI) patients can be a matter of life or death. Additional capabilities include more timely specialist consults, smoother patient handoffs, expedited results for providers and patients, reduced bed days and accelerated discharges that meet Medicare requirements — all impacting patient throughput, satisfaction, and hospital revenue. Cloud-based CC&C solutions allow care teams to unlock data when and where it’s needed — inside or outside the hospital, resulting in higher return on investment (ROI) from healthcare information technology.

Role-based Communication & Scheduling

Every team member in a hospital, from nurses to administrative staff, asks a simple question regularly: “Who is on call?” By integrating predefined roles with the scheduling system, staff can easily identify the correct point of contact and call them immediately within a single application.

2. Gartner, 2021 Strategic Roadmap for the Real-Time Health System, Barry Runyon, 23 March 2021

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When a child comes into the emergency department with a potential case of poisoning, who is the pediatrician on call and what other team members need to be notified? When a patient presents with head trauma, who is the neurologist on call? These issues extend from the point of care to administrative tasks such as discharge and patient transport.

There's a posted schedule, of course, but is it right? Are the phone numbers correct? Most clinicians have experienced harmful delays in care because they could not quickly find who was covering for a particular patient or specialty. While that's a common situation, the problem involves more than just phone calls, and so does the solution. By incorporating a communication system with on-call schedules and other duty rosters, care teams can communicate with each other, not only by name, but by the roles and jobs they fulfill.

Role-based communication and integrated scheduling alleviate the need to find a specific person. A staff member simply finds "anesthesiologist" or "pediatrician" in the app, and they're connected to the right person—without extra phone numbers to dial or wondering whether they're calling the correct number. The communication happens securely and seamlessly through the platform. To gain maximum value from an integrated, role-based CC&C platform, it's imperative to include and integrate all forms of communication used by healthcare workers, including text, voice, video, nurse call, physiologic monitors and EHR data.

Optimizing Care Team Communication

Communication errors are disturbingly common in healthcare, affecting patient outcomes and care quality. Healthcare communication breakdowns have other consequences, too: according to a March 2022 report published in the *Journal of Patient Safety*, communication failures were identified in 49% of medical malpractice claims. Minimizing these errors requires the adoption of modern CC&C systems.

Improving the communication system is critical to enhancing clinical workflows, and better workflows benefit everyone. Advanced CC&C platforms that put real-time, contextual information into the hands of the right care team members can positively impact cost, quality and experience for patients and providers alike. Detailed text message alerts, coupled with location tracking and workflow data, make it much easier to coordinate care efficiently by prioritizing responses.

With the ubiquity of smartphones, care teams and patients expect to have easy-to-use, real-time voice, text, and video communication. HDOs can now equip care teams with HIPAA-compliant solutions that work on their own consumer devices, ensuring safer, more secure communication that protects patient and hospital information.

TigerConnect Customer Stories

Baylor St. Luke's Medical Center

Using TigerConnect with “roles” enabled for 25 stroke team members across the Emergency Department, Neurology and Imaging, Baylor St. Luke's Medical Center slashed “door to needle” time for stroke patients from 62 minutes to 30 minutes. The reduction in door to needle time greatly improves patient quality of life and lowers readmissions.

Newark Beth Israel Medical Center

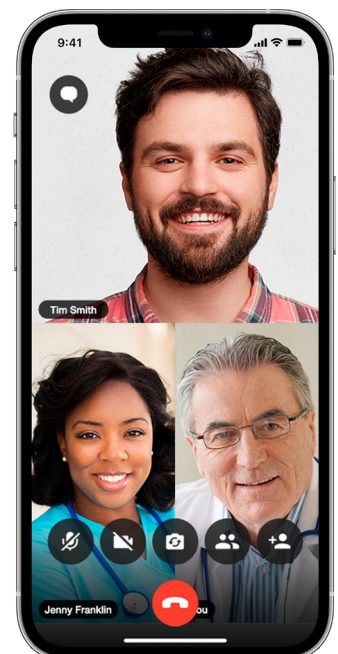
To easily escalate discharge barriers for quick resolution, Newark Beth Israel Medical Center implemented TigerConnect group messaging features to interdisciplinary teams and reduced the average length of stay (LOS) by 1.4 days.

Doylestown Hospital

By moving from paper to online scheduling with TigerConnect Physician Scheduling, Doylestown providers can now quickly change on-call coverage without having to contact the switchboard. Operators no longer need to manually build and update a daily schedule — this saves valuable time and reduces costly errors.

Improving Patient Engagement & Success

Improving outcomes goes beyond staff communication and collaboration — it must also involve patient engagement. Being in the hospital is stressful, and patients often are uncomfortable with the environment and processes involved. Advanced CC&C platforms can bring patients into the loop so they are better informed and decreasing patient stress will reduce staff stress.



A good way to accomplish this is to communicate with patients before, during and after their hospital visit. For example, sending secure text reminders to register on the patient portal, appointment reminders and links to pre-appointment paperwork. For discharge, secure messaging can help coordinate transfer and send care instructions to family members. But requiring patients to download a secure app to do those things adds complexity and frustration to the patient experience. What if the app doesn't load right? Patients just want things to work without troubleshooting a download. Replicating an easy, familiar messaging experience is essential for today's patients.

Patients need the ability to choose their preferred communication method, whether that is voice, text or video. Fortunately, ease-of-use, security and HIPAA-compliant messaging are critical components of a CC&C platform. The texts look like regular messages to the patient and family, but they are secured through the platform. Staff can engage via secure video, voice and text with patients and their families — with no app for them to download — for appointment reminders, to collect intake documents and to provide loved ones with updates. Patients also can follow-up after a visit to ask questions, vet potential complications or deliver updates on their recovery.

Integrating CC&C with EHR

The healthcare industry is coming off a wave of digitization of health records that required a lot of labor, expense and process change. It's a good start, but it's only the beginning of the needed digital transformation.

The electronic health record (EHR) contains patient information mainly for billing purposes. Making that data actionable and usable by medical professionals in real-time is where the EHR comes up short. Physicians and nurses are in constant motion, moving from room to room, station to station, and floor to floor — for them, being tethered to a computer to fulfill even simple requests is problematic.

Some healthcare organizations have pressed EHR information storage systems into double-duty as a communication medium. But EHR systems are patient-centric — they do not drive clinical workflows. Furthermore, using an EHR system as a communication medium inhibits collaboration because they are closed or non-inclusive — that is, they are inaccessible to some members of the care team, and they seldom connect easily with physiologic monitors, nurse call or other systems.

To maximize flexibility, it's best to leverage a CC&C platform that integrates with EHR and is purpose-built for clinical workflows. That can provide more integrated communication and access to relevant data. Some CC&C vendors can integrate EHR data, alarm management & event notification and other applications into the platform, enabling the right information to be delivered at the right time in the right format. The importance of that kind of integration is highlighted by numerous researchers:

Experts Agree on Importance of EHR Integration

Data from hundreds of healthcare organizations shows that providers who do not use a clinical communication solution report more overall EHR dissatisfaction than providers who use a communication platform.

—KLAS' Arch Collaborative, Sept. 2021

A study funded by the U.S. Dept. of Veterans Affairs showed EHRs are overloading outpatient doctors with information in "disparate files and folders rather than presenting comprehensive, actionable data in a context that gives meaning."

—National Library of Medicine, May 2021

"Almost 40 percent of surveyed outpatient providers are looking to replace their EHR and other IT tools with solutions that offer better ease of use, more functionality and increased interoperability with other IT systems."

—Health Data Management, June 2019

"Poor provider-provider and provider-patient communication can result in significant morbidity and mortality to patients and play a role in malpractice claims."

—Patient Safety Network, April 2022



CC&C solutions can integrate with EHR data while empowering care teams to be more effective by utilizing the data where and when they most need it. By adopting a CC&C platform across the organization, staff can have the information to provide an improved and more cohesive patient experience surrounding admission, discharge times, transfers and specialty consults.

The Pressure to be Profitable

In this climate of staffing shortages, increased burnout rates and rising operating costs, HDOs are pressured on multiple fronts. How do you identify, select and implement technology that not only streamlines IT management and maximizes operational efficiency, but also motivates employees to embrace new solutions for better patient outcomes?

The burden that legacy communication technologies place on care teams and patients, along with the risks of using messaging that is not HIPAA-compliant, brings the collective industry cost of communication inefficiency into the billions of dollars. Such poor communication capabilities drive surging costs for hospitals, health systems and patients. According to a study published in FierceHealthcare, poor communication has been a factor in 1,744 patient deaths and over \$1.7 billion in malpractice costs nationally in the past five years.

In addition, the process to manage on-call schedules is usually manual or a set of disjointed applications and methods. Sometimes multiple vendors are used inside the facility, as well as outside in clinics and physician offices. Larger, multi-hospital HDOs may have three or four vendors, and even more versions, to manage and maintain. They often deal with multiple vendors and solutions for medical device alarms and alerts, nurse call systems, EHRs and clinical surveillance systems. Disparate methods have to capture and integrate all that.



Fortunately, that cost, complexity and chaos can be mitigated with an integrated CC&C platform. Such a platform can consolidate vendors and simplify the IT environment, reducing physical plant requirements, software support and management overhead. According to KLAS Research's Clinical Communication Platforms 2021 report, "100% of respondents report improved communication efficiency." The report cites five key improvements delivered by CC&C platforms:

- Efficiency of clinical support staff
- Patient satisfaction and care via timely, efficient communication
- Physician satisfaction
- Pre-admission and ED outcomes
- Hospital overhead cost reduction

The past five years have seen rapid improvements in the features, comprehensiveness, and ROI of CC&C systems. Changes to the healthcare system continue to accelerate, and IT organizations that stay ahead of the curve will find themselves better positioned to handle the challenges that lie ahead.

Improve ROI and your Patients' Safety, Outcomes, and Satisfaction

With a plan for unifying communications across the healthcare enterprise, vendors can be reduced, and the environment can be greatly simplified. The savings realized from vendor consolidation can fund some or all of a modern, CC&C platform.



In addition, elastic and fungible cloud services help HDOs save money and communicate more efficiently. And cloud-based solutions are subject to more frequent security and process audits than on-premise solutions, making healthcare data more secure.

With an easy-to-use, scalable, cloud-based CC&C platform, communication experiences can be improved for everyone: patients and families, care teams and administrators.

Choosing the right platform can help ensure staff adoption and enable improved outcomes. Ultimately, it will allow your staff to do what they got into healthcare for — help patients. Here are some of the specific advantages of a cloud-based CC&C platform:

- Expedites life-saving communication and information sharing cross-functionally, between multiple clinical teams and care providers, while supporting HIPAA requirements.
- Optimizes workflows and improves patient care by integrating all forms of communication used by healthcare workers, including text, voice, video, nurse call, physiologic monitors and EHR data.
- Links hospitals and hospital networks, providers, and affiliated facilities from anywhere, making information easily obtainable by qualified members of the care team.
- Incorporates alarms & alerts, care team messaging, location tracking, and workflow data, giving clinicians information to coordinate care more efficiently by prioritizing responses.
- Provides visibility to on-call schedules and other duty rosters so that healthcare workers can be contacted by name as well as by the roles and jobs they
- Loops-in patients to improve their experience by providing a designated resource point where they can make or respond to inquiries and confer with providers via text, voice or video.
- Reduces cost, complexity and chaos by consolidating secure communications, collaboration and EHR data on an easy-to-manage, HITRUST CSF-certified platform.

About TigerConnect

TigerConnect transforms healthcare with the industry's most widely adopted clinical collaboration platform – uniquely modernizing how doctors, nurses, care teams, patients, and data connect. With solutions spanning care communication, patient engagement, scheduling, alarm notifications, nurse call, and more, TigerConnect accelerates productivity, reduces costs, and improves patient outcomes, safely and securely. Trusted by more than 7,000 healthcare organizations for user-friendly yet enterprise-ready solutions, TigerConnect delivers 99.99% verifiable uptime for more than 10 million messages each day.

To request a demo or learn more about TigerConnect, visit www.tigerconnect.com, call us at 1-800-572-0470, or email us at info@tigerconnect.com.