



*50 Years of Growth, Innovation and Leadership*

## Clinical Communication in a Digital Era

*Meeting the secure collaboration and communication needs  
of healthcare providers with Microsoft 365*

Frost & Sullivan White Paper – Sponsored by Microsoft  
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## A DYNAMIC HEALTHCARE ENVIRONMENT IS CHANGING THE WAY PROVIDERS WANT TO COMMUNICATE

Health providers need autonomous and convenient access to data and peer input to deliver their best care to patients. But clinical best practices at the point of care also require diligence in security and compliance. Here lies the conundrum for care givers: compliance and proper data protection should not have to require that physicians wait for data needed at the point of care.

The rapid expansion of available data, and the application of that data to support enhancements to clinical and non-clinical practices, is fostering the evolution of hospitals into smart and intelligent enterprises.<sup>1</sup> As compared to other industries, such as Retail or Banking and Finance, healthcare traditionally has lagged behind in terms of embracing new technology innovations to enhance and evolve the way services are delivered. The reality in healthcare is that many factors — technology, regulatory, workflow, and legacy IT systems among them — must come together to accelerate adoption of new tools and services as part of evolving clinical practices, given the need to improve care quality and outcomes today.

Simultaneously, the same forces of digital transformation have created the imperative that healthcare communications in the workplace should be more agile in order to make clinical decisions faster, given the life or death decisions involved, and to better mirror the convenience and ubiquity of communication channels available elsewhere. The proliferation of consumer apps in healthcare environments is one way providers respond to these pressures to communicate with agility. Hospitals and health systems also face expanding external and internal threats to PHI and sensitive data, making communications an important link to protect from breaches. In this environment, secure messaging solutions must play a central role in efficient, compliant and effective clinical care moving forward. The imperative to communicate with agility in high-stakes and time-sensitive environments should not have to conflict with the imperative to be compliant in the treatment of sensitive patient information.

Providers are constantly struggling to reconcile convenience and compliance with information security requirements. In this paper we show that this dichotomy need not exist, given the existing communication tools available. Beyond convenience as a driver to adoption of new technology, there is the benefit of delivering the right information to the right provider at the right time, drawing rich insights from clinical systems and collaborating to address clinical issues via secure communications.

“Providers are constantly struggling to reconcile convenience and compliance with information security, which is a dichotomy that need not exist, given the existing communication tools available.”

Frost & Sullivan

1 Frost & Sullivan, Future of Smart Hospitals - Report K1FF, 2017.

## MESSAGING CHALLENGES FACING HEALTHCARE PROVIDERS

According to Frost & Sullivan research,<sup>2</sup> the most common pain points hospital and health system executives, including clinical staff, face regarding electronic clinical messaging include issues related to security and improving how clinical staff can collaborate better in a convenient or seamless way (**Exhibit 1**).

### EXHIBIT 1: HEALTHCARE PROVIDER PAIN POINTS WITH ELECTRONIC MESSAGING



When physicians, nurses and other clinically oriented staff need to communicate within the hospital, they are faced with an important first choice — to use a method which is secure and compliant with data governance and protection regulations (e.g., HIPAA, GDPR, etc.<sup>3</sup>) — or not. Effective protection of PHI and sensitive healthcare data is a central concern of healthcare organizations today.

Why do people use an unsecure communication method as part of patient care? Given the time-sensitive nature, they may have no other choice in terms of electronic communication to address critical issues and to share needed information. While unsecure, providers may see value in leveraging tools that are easier to use than their current enterprise communications tools. Providers want a convenient experience when using a secure communication solution that easily integrates with their workflow, and would prefer to not trade-off convenience or compliance.

Another challenge is bringing more utility to users beyond the message itself. How do people know they are being heard by their colleague? How can a message break through the noise to reach a physician at the right time for a critical patient need? How can they share needed clinical information (such as images) with other care team members? Clinicians should not feel like they are playing phone tag when health and lives hang in the balance, given the tools available in today's digital environment.

<sup>2</sup> Frost & Sullivan primary research with CMIOs, clinical and IT leadership in US hospitals related to secure messaging, December 2018.

<sup>3</sup> Healthcare Information Portability and Accountability Act, EU General Data Protection Regulation

## SECURE MESSAGING — A MANDATORY INVESTMENT FOR HOSPITALS AND HEALTH SYSTEMS

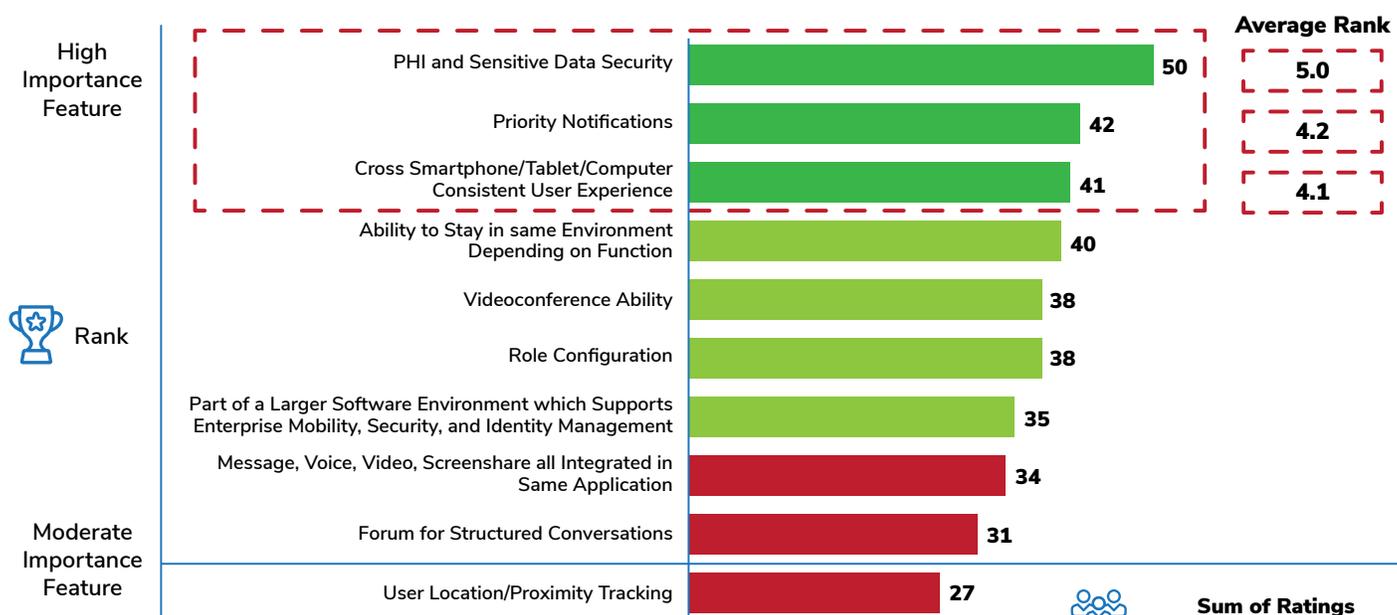
A secure messaging and communication solution is a mandatory investment for hospitals and health systems today, bringing together convenience and security while enabling communication in the hospital in ways never before possible. Given the rapidly changing ways people communicate, leveraging technology and healthcare’s continued data expansion and digital/IoT centrality, Frost & Sullivan expects this to continue to grow in terms of importance. Secure messaging solutions directly contribute to improved patient safety and clinical care by enhancing and increasing communication amongst medical providers.

If a hospital or health system does not have a secure messaging solution in place, it needs to be assessed as a priority as part of an investment roadmap. Leverage a mixed team of stakeholders in your organization as part of the solution evaluation process, including both clinical and IT leadership, since they will be the most impacted by the change.

### WHAT IS MOST IMPORTANT TO HOSPITALS WHEN IT COMES TO SECURE MESSAGING FUNCTIONS?

According to our research with healthcare providers (**Exhibit 2**), the top three features of importance when it comes to a secure messaging solution are data protection capabilities, priority notifications, and a consistent user experience, regardless of the device used in communications. When viewed in context of the leading hospital pain points, these features directly align with the top challenges and reasons hospitals are investing in secure messaging solutions. Providers want to conveniently consult with colleagues — quickly and in a secure way — and enable more time to be spent caring for patients.

**EXHIBIT 2: KEY SECURE MESSAGING FEATURES RANKED BY IMPORTANCE**



Source: Frost & Sullivan

Base: All respondents USA (n=10) CMIO and provider executives with hospitals currently using a secure messaging solution. Q. How would you rate the following attributes on a scale of 1-5 in terms of importance? (on a scale of 1-5; 5 being very important, 3 being moderately important, 1 being not important)



“Secure messaging provides efficiency in workflow, while being HIPAA compliant.”

CMIO, Integrated Delivery Network

It is critical for hospitals to focus on strong security technology, threat protection, and sensitive information protection, which at an enterprise level can include capabilities such as identity and access management, and mobile device management. Regulatory compliance is the leading security concern of providers related to messaging, based on our research. Other factors of importance include automated message deletion, message lifetime policies, images not being held on local devices, secure login, and encryption at rest and in transit.

Priority notification is a must-have function for hospitals to ensure optimal clinical collaboration in an acute care environment. Attributes such as prioritization, alerting, tracking and read notification help to close the communication loop and enhance the user experience. Our research shows this capability results in increased responsiveness from team members, and helps both the end user save time and better ensures patients get treated when they need it.

Ease of use is one of the most talked about components of provider software experiences in the market, especially considering the struggles with EMR usability and how it can negatively impact provider workflow. It's also a key pain point and reason behind use of unsecure messaging. For hospitals, having a consistent software user experience across various form factors (computer, tablet, mobile device) makes things simple and easy for users, and supports consistency in data entry and workflow.

## MICROSOFT 365 — ENABLING AND ENHANCING CLINICAL COMMUNICATION

Based on our research ([Exhibit 3](#)), Microsoft 365 directly addresses the top challenges facing healthcare providers in electronic messaging in hospitals and health systems, through its capabilities to provide secure and regulatory-compliant messaging and communication, along with the convenience and usability that address both organizational and individual needs and pain points.

### *Meeting the Top Concerns of Hospitals — Security, Advanced Messaging and Convenience*

In terms of security, Microsoft provides enterprise-class technology, including identity and access management, threat protection and information protection to enable a hospital to protect data and PHI through a best-in-class, cloud-based approach, with advanced security and compliance capabilities. Microsoft 365 has over 1,100 controls in the Office 365 compliance framework, including compliance offerings for HIPAA, ISO 27018 and ISO 27001, and has earned key certifications conferred by independent third-party auditors who regularly assess security and compliance. Data also belongs to the client organization, with full control regarding access and where the data resides.

Regarding advanced messaging, the priority notification feature in Microsoft Teams, which Microsoft specifically designed for healthcare, directly supports the ability for clinical users to get alerts for an urgent message, with an automatic follow-up to the recipient every two minutes for 20 minutes, as well as read receipts. Microsoft Teams is the secure collaboration and communication hub in Microsoft 365. Message delegation is another important feature, which supports the flexibility of communication needed in a clinical team, whether it relates to a team member on-call or a physician covering for a colleague while in an operating theater. The ability to variably message other users one to one, one to a group, as well as to deliver broadcast level messaging organization wide are also valued capabilities by providers. Role based messaging is a feature currently in development.

Images are the leading file type shared by providers as part of patient care. Microsoft 365, via its smart camera feature in Teams, optimizes the way the image is shown in the platform; images are not stored on local devices. Users can also annotate images, and share these notations.

In terms of convenience and ease of use, Microsoft 365 has a range of value points addressing this provider desire. A consistent user experience across different devices supports familiarity of workflow, and enables providers to more seamlessly shift across devices as their needs and experiences change throughout the day. The ability to reduce the need to cross software systems directly addresses provider challenges with platform switching, which is a challenge currently in health IT experiences that providers are looking to address. Features such as Teams' integrated messaging, voice, video and screen sharing enable flexible collaboration across multiple channels.

A top issue in healthcare is the need to bring together the extensive information which exists in the enterprise to the user to support added context about the patient, disease, or other criteria for better decision making. Microsoft 365 integrates with the electronic medical record to provide that insight so providers are more empowered. User location tracking can also be a benefit, especially in today's more IoT-oriented hospital IT deployments, to help find colleagues faster, which can be essential in a fast-paced, acute care environment.



**EXHIBIT 3: TOP PROVIDER CHALLENGES IN SECURE MESSAGING VS. MICROSOFT 365 CAPABILITIES**

Hospital and Health System Requirements for Secure Messaging		
Top Provider Challenge	Capability Function	Microsoft 365
<b>Security</b> 	PHI and Sensitive Data Security	✓
	Security Capabilities in Enterprise Mobility, Security and Identity Management	✓
	Extensive Regulatory Compliance Framework Including 3rd Party Auditing	✓
	Images Not Held on Local Devices	✓
<b>Advanced Messaging</b> 	Priority Notifications	✓
	Message Delegation	✓
	Read Receipts	✓
	1 to 1, 1 to Group, Broadcast Messaging	✓
	File Sharing	✓
	Role-based Messaging	In Development
<b>Convenience and Ease of Use</b> 	EMR Integration	✓
	Cross PC, Smartphone, Tablet- Consistent User Experience Regardless of Platform	✓
	Message, Video, Voice and Screen Sharing	✓
	Lowered Need for Software Platform Switching by Users	✓
	User Location/ Proximity Tracking	✓

As we move into the future, Microsoft is better positioned than other companies to lead in secure messaging and communication innovations, especially with its strengths in areas such as cloud, security, artificial intelligence and machine learning. For example, how will artificial intelligence be integrated in these systems to improve communication and coordination? Who better to answer that question, Microsoft or an EMR vendor? Our money is on Microsoft.

**THE LAST WORD**

The moral choice which exists for many healthcare providers today in terms of convenience versus compliance in communication can be eliminated by embracing Microsoft 365 as a platform for secure collaboration. Additional features add context and crucial clinical information to this secure communication platform. Overall, Frost & Sullivan believes Microsoft 365 is well positioned to be a leading solution for hospitals and health systems looking to address their secure messaging, communication and clinical collaboration needs.

## NEXT STEPS >

- > **[Schedule a meeting with our global team](#)** to experience our thought leadership and to integrate your ideas, opportunities and challenges into the discussion.
- > Interested in learning more about the topics covered in this white paper? Call us at 877.GoFrost and reference the paper you're interested in. We'll have an analyst get in touch with you.
- > Visit our **[Transformational Health](#)** web page.
- > Attend one of our **[Growth Innovation & Leadership \(GIL\)](#)** events to unearth hidden growth opportunities.

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