



The Search for Connected, Secure, and Scalable Solutions for Healthcare Interoperability

**Integrating Old and New Technologies
to Improve Patient Care**



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Summary



The American healthcare industry has been gradually moving toward interoperability for the past six years to enable communication among all electronic health records systems (EHRs).

To achieve “seamless and secure access, exchange, and use of electronic health information”—the objective set by the Office of the National Coordinator for Health IT (ONC)—providers must meet certain requirements by 2024.

Because many organizations have questions and misconceptions about this process, the purpose of this white paper is to explain the challenges of accomplishing interoperability in healthcare and provide connected, secure, and scalable solutions.

Introduction

Attaining interoperability in healthcare feels like a huge undertaking for an industry that's relied on traditional/analog fax capabilities for decades. Despite the push for electronic recordkeeping more than a decade ago, many healthcare providers still use fax as a way to transmit information to organizations within the field as well as entities outside the industry such as law enforcement, social services, and employers.

The good news is a complete overhaul of healthcare providers' existing processes isn't necessary. There are ways to combine new and old technologies to meet compliance standards and improve patient care. Let's start by exploring the challenges of achieving interoperability in healthcare, how the timeline has progressed so far, and what tasks remain to create the optimal, connected patient experience.

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Interoperability in Healthcare Challenges



Healthcare organizations are under pressure to meet interoperability standards set by the 21st Century Cures Act. Providers have taken steps to comply with the law since it was enacted in 2016, but the list of upcoming deadlines in 2022 and 2023 has renewed the sense of urgency. These organizations must adapt over the next two years to exchange information freely and electronically without boundaries.

One of the main challenges providers face with interoperability is the belief that fax—the most commonly used channel for exchanging healthcare documents—won't be functional anymore. The traditional perception of fax—putting paper into a machine, dialing a number, and transmitting information—is hindering how organizations view the communication method. Providers have trouble conceptualizing fax as a digital solution.

Organizations may also be oblivious to the role direct messaging can play in interoperability. Direct messaging is similar to email; however, it ensures data is encrypted and users are verified to comply with HIPAA (Health Insurance Portability and Accountability Act) privacy regulations. Direct messaging already exists in many EHRs, yet organizations may not be fully aware of the channel's capabilities.

Providers are struggling to find the tools to achieve interoperability without radically restructuring interfaces and workflows. Providers want simple and seamless solutions to generate documents that provide requested information using data from multiple sources and create bundles of documents into one package for sharing. Overcoming these challenges would not only put organizations in compliance with the law but also offer many benefits to patients and providers.

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History of Interoperability in Healthcare



To understand the current status of the interoperability of healthcare information systems, let's explore two fundamental pieces of legislation (that have pushed providers toward sharing electronic data) and the consequences of non-compliance.

HITECH Act

The Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 encouraged healthcare organizations to turn paper records into electronic data. Before the act was introduced, only 10% of hospitals were using EHRs. The idea was to advance the implementation of health information technology.

Since transitioning to electronic records was an expensive process, the HITECH act offered financial incentives to providers that adopted EHRs. The legislation also applied the HIPAA Security and Privacy Rules to business associates and made them directly liable for compliance with HIPAA.

While the use of EHRs increased over time—96% of non-federal acute care hospitals implemented certified health IT by 2017—an obstacle remained. Organizations used a variety of systems and software that didn't communicate with one another. When required to exchange information, providers would often print health records then fax the stack of documents to the other organization, reverting to paper and analog procedures.

Essentially, EHRs worked best and were designed for electronic billing and coding—not transferring data and sharing information.

21st Century Cures Act

The goal of the 21st Century Cures Act of 2016 was to increase choice and access for patients and providers. The law included requirements that support interoperability. Section 4003 defined the term as health information technology that:

“(A) enables the secure exchange of electronic health information with, and use of electronic health information from, other health information technology without special effort on the part of the user;

(B) allows for complete access, exchange, and use of all electronically accessible health information for authorized use under applicable State or Federal law;

(C) does not constitute information blocking as defined in section 3022(a).”

By 2024, patients, providers, communities, and researchers will have an interoperable health IT infrastructure that allows participants to securely share electronic health information. One of the guiding principles set by the ONC is to encourage organizations to build upon existing health IT infrastructure to improve functionality.

Measures Taken So Far

The 21st Century Cures Act started making some progress in 2020. Here's where the measures stand as of January



March 9, 2020

The Cures Act Final Rule explained how organizations would implement the law, but the pandemic prompted a delay in action for more than a year.



April 5, 2021

The Cures Act Final Rule took effect, making basic electronic health information (EHI) available by request.



December 15, 2021

Developers were required to submit real-world testing plans to show progress toward sharing information.



January 18, 2022

Trusted Exchange Framework and Common Agreement (TEFCA) was released to standardize the process for sharing data.

Timeline of Remaining Tasks

Providers now have less than two years to complete the steps laid out by the Final Rule and become interoperable. These are the remaining actions that need to be taken between now and 2024:



April 1, 2022

The Cures Act Final Rule explained how organizations would implement the law, but the pandemic prompted a delay in action for more than a year.



October 6, 2022

All EHI must be made sharable, excluding a list of exemptions for privacy and security.



December 31, 2022

Fast Healthcare Interoperability Resources (FHIR) compliance will be required.



March 15, 2023

Developers must submit real-world testing results, addressing each type of clinical setting for which the technology is marketed.



December 31, 2023

EHI export capability must be activated, requiring two comprehensive export features.

At the start of 2024, EHR vendors will be required to provide single patient exports and full system exports at any time.

Why Is Interoperability Important In Healthcare?

Patients stand to benefit from interoperability in many ways including fewer doctor visits, emergency room trips, and hospital admissions. We'll explain the advantages of interoperability for healthcare providers in the next section. But first, let's discuss the risks organizations face by not becoming interoperable.

Without interoperability, providers will have to manage document handling and touchpoint processes manually—which is a slow, inefficient, and mistake-prone method. Organizations won't be efficient enough to meet

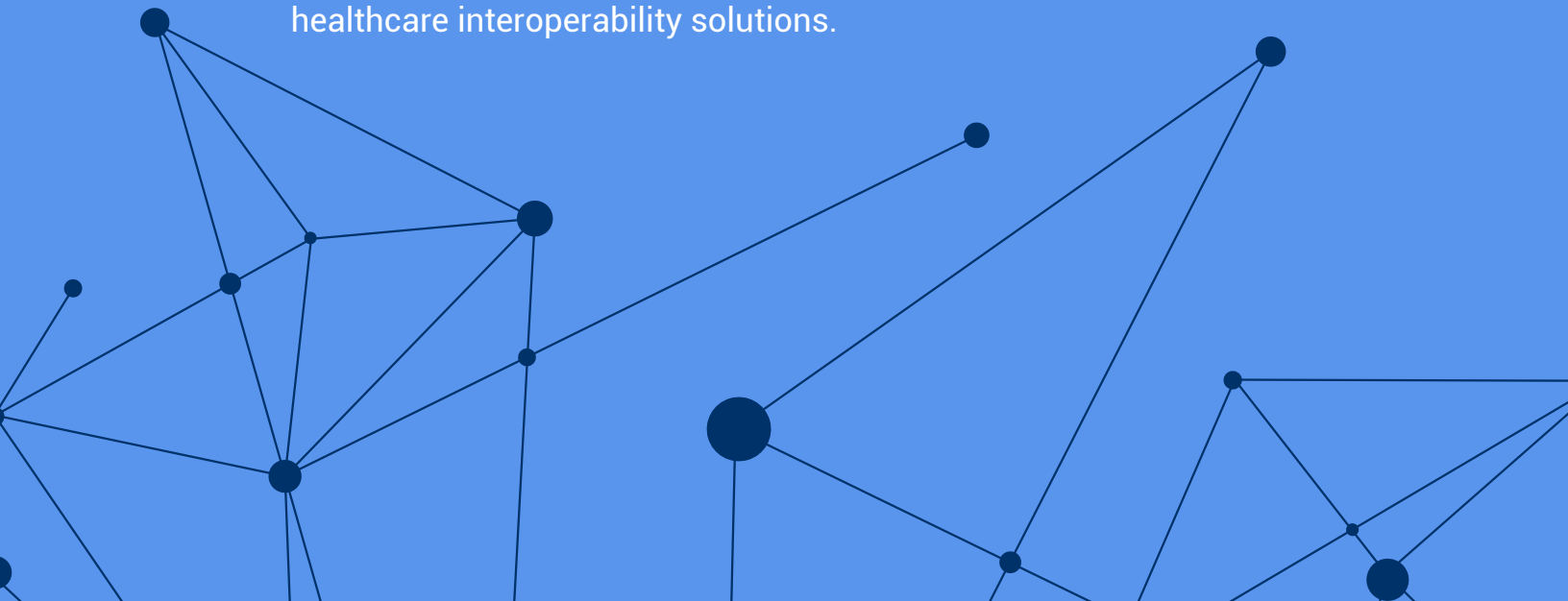
or objectives and standards set by other entities—which will negatively affect patient and financial outcomes.

Providers won't be able to track and monitor the flow of data and must face the consequences of having gaps in compliance. Both patients and organizations will have to do more work to compile the right data for a specific instance in the preferred format.

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Interoperability Solutions in Healthcare

Providers can start implementing connected, secure, and scalable solutions right now to comply with the 21st Century Cures Act. Organizations can enable processes to send, receive, find, and integrate patient information electronically from a centralized location. Providers can create a holistic view of the document journey from end to end with benefits for both the patient and the organization. Let's dive into the details of some of these healthcare interoperability solutions.



How to Improve Interoperability in Healthcare

Secure (HITRUST certified and HIPAA compliant) channel solutions such as digital fax and direct messaging can be embedded into or integrated within providers' systems. Organizations can quickly incorporate digital fax into workflows because it's already a known, comfortable form of communication. Likewise, providers can easily implement direct messaging into processes because it's similar to email yet more secure.

Digital fax and direct messaging allow organizations to openly exchange information stored within EHRs. Providers can gather data from multiple sources then generate shareable documents to send out with specific patient information. These solutions are also built for

scale and easily able to adopt new and emerging channels such as Health Level Seven International (HL7)/FHIR.

Using solutions such as digital fax and direct messaging reduces the need for physical recordkeeping. Organizations no longer have to scan and file documents. Providers don't have to enter data into EHRs manually then destroy hard copies with sensitive information. Organizations can stop printing off their digital records to fax to other entities because the information can now be stored and sent electronically.

Benefits of Interoperability in Healthcare

Secure channel solutions such as digital fax and direct messaging will help create a centralized document management system for providers. Organizations will be able to turn structured data into unstructured data and automatically create new documents with relevant information from multiple sources. Providers can even attach barcodes to transmissions for secure and convenient routing.

Because electronic data is stored in the cloud, organizations will be able to access patient information on multiple devices and have the flexibility to use a range of technologies.

patient stages and moments as well as integrate documents and data into established and future workflows.

Providers will be able to eliminate manual processes, see increased efficiencies, and improve patient and financial outcomes without having to completely revamp procedures. By combining traditional and digital forms of communication, organizations can create a single, secure, and unified experience for everyone involved. With less focus on data transmission, providers can spend more time making informed decisions about patient care.

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Conclusion

Healthcare organizations can achieve interoperability by the 2024 deadline without having to get rid of fax or redo entire processes.

Providers can work with existing technologies such as traditional fax and email and merge digital fax and direct messaging into those workflows.

With these connected, secure, and scalable solutions that offer cost savings, efficiency, and convenience, organizations will be able to streamline processes, seamlessly exchange data, and deliver better patient experiences.



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How to Achieve Interoperability in Healthcare

For more actionable guidance on ways to achieve interoperability in healthcare, stay tuned for our upcoming eBook on how to quickly align your digital fax and data processes.



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