

# Overcome the 5 key challenges of healthcare IT

with Kyndryl and Amazon  
Web Services (AWS)

kyndryl



aws

**PARTNER**  
Premier Tier  
Services

# Contents

01

The 5 key challenges  
facing healthcare IT

02

Conclusion



# 01 The 5 key challenges facing healthcare IT

## 1. Cloud migration of electronic health records

Migrating electronic health records (EHRs) to the cloud brings numerous benefits, including increased accessibility, improved data security, and instant scalability. However, it also raises a number of questions that can discourage medical facilities from taking full advantage of the latest technologies. For instance:

- Does it meet regulatory requirements, such as HIPAA in the United States?
- Is there cost transparency and predictability?
- Does our ISP offer sufficient bandwidth to support seamless cloud performance?

Kyndryl and AWS are working together because we believe that fighting technology shouldn't be part of caregiving. We envision a future where medical professionals have instant access to the information they need and can focus on treating patients and curing diseases, without the distractions of IT and infrastructure.

Together, we provide cloud computing services that help give healthcare organizations the flexibility to take advantage of cloud scalability, agility, and cost savings while keeping critical data and applications on-premises to fulfill regulatory compliance.

## 2. Medical staffing

As the number of hybrid healthcare workers and traveling physicians increases, hospitals face new challenges related to workforce management. Remote workers require different types of support than traditional organic employees, and this is putting pressure on healthcare IT administrators to implement solutions that can facilitate a hybrid work staff, including:

- Digital tools to increase communication and collaboration among hybrid and on-site staff
- Automated contact centers that ensure patient calls, inquiries, and requests are answered and properly routed to the right caregiver

- Open billing systems that improve workflow efficiencies by making insurance and other essential documentation available to all authorized staff

This shift in the workforce is forcing healthcare—and nearly all other industries—to adapt their practices in order to retain their existing workers and attract the best ones in the future.

At Kyndryl, we understand that the changing workforce creates new pressures on your hospital's IT department to deliver new types of solutions. And that's where we can help. We design, build, and modernize the mission-critical technology that medical providers rely on to deliver improved patient care, better experiences, and better outcomes. Our collaboration with AWS means you'll have the skills, expertise, and global resources to keep growing, evolving, and adapting to whatever the future brings.

### 3. Getting the right data, to the right person, at the right time

Hospitals face many challenges when it comes to getting medical and operational data in the right hands when it's needed. One reason is that most healthcare facilities use multiple EHR systems in combination with electronic medical records (EMR) systems, which can result in conflicting data being delivered to clinicians versus administrators. If EHR systems are not properly configured, data can be misdirected and effectively lost, causing patient billing issues. Likewise, it can be a source of lost revenue for the hospital.

In some cases, hospitals may have acquired systems that do not fully integrate with their own, resulting in fragmented patient data that is difficult to access and share across different departments and healthcare providers. This can potentially lead to errors in

diagnosis and treatment, including rerunning patient tests unnecessarily.

Another issue with healthcare data is its sheer volume—and not just clinical data, but business data as well. With the advent of EHRs, healthcare organizations are now generating more data than ever before. This includes structured data like lab results and vital signs as well as unstructured data such as clinical notes and imaging studies.

Kyndryl data analytics, AI, and machine learning (ML) expertise combined with AWS analytics services can help healthcare organizations manage this data effectively and securely. By employing advanced technologies like AI and ML to integrate disparate EHR systems and identify errors and inconsistencies in records, data quality can be vastly improved. With this data, healthcare professionals can incorporate AI-powered predictive analytics tools to help identify patients who may be at risk for certain conditions or complications based

on their medical history. For example, AI applications can drastically improve clinical diagnostics by “telling” radiologists which slice of an image they should focus on versus having to go through all of them individually.

**More than 90% of accountable care organizations (ACOs) have multiple EHRs. Just 9% of ACOs use a single EHR system, whereas 77% use 6 or more EHR systems.<sup>1</sup>**

Source:

1. American Journal of Managed Care, “Use of Electronic Health Record Systems in Accountable Care Organizations,” January 2022.



## 4. Achieving healthcare equity assisted by technology

Among the barriers to healthcare equity are access to healthcare facilities, socioeconomic status, and cultural and language barriers. There is a big push in the healthcare industry to prioritize health equity to make sure that all patients get the best care, regardless of their location or ethnicity. Technology is playing a key role here thanks to adaptive clinical management solutions that are transforming patient care. These solutions are capable of leveraging real-world EHR data using advanced analytics to identify patterns in patient data and provide clinicians with real-time insights that can inform treatment decisions.

Adaptive clinical management solutions help clinicians to:

- Improve patient care through personalized medicine, analyzing a patient's genetic makeup, medical history, and other factors to help them tailor treatments to each individual's unique needs.
- Gain access to real-time data about each patient's condition and treatment plan to ensure that everyone involved in that patient's care is on the same page. This also reduces the risk of miscommunication and improves the overall quality of care.
- Improve population health by identifying high-risk patients who may benefit from early interventions or preventive measures. By analyzing large data sets, these solutions can help healthcare organizations identify trends and patterns that may be indicative of underlying health issues in specific populations.

- Operate their healthcare facilities by streamlining complex administrative tasks, like appointment scheduling, and automating routine tasks, like prescription refills. This frees up time to focus on more complex tasks such as diagnosis and treatment planning.

Kyndryl and AWS work together in promoting healthcare equity by providing innovative technologies that can help improve access, reduce costs, personalize treatments, and enhance patient engagement across the healthcare industry.



## 5. Improve the work experience across the board

When most people think of the care team at a hospital or healthcare facility, they think primarily of doctors and nurses. But there are dozens of different roles that contribute to a patient's overall care. Whether they carry a wrench, a tray, a thermometer, or a bottle of disinfectant, they are all essential members of the organization. If one of them is unable to do their job, it has ramifications down the line, adding time, cost, and stress to operations.

A key factor in operating a well-oiled machine is efficiency. If someone has to enter the same data into more than one system, perform redundant tasks, or log in to different systems to access certain information, those are efficiency problems that add time and costs, and create frustration.

Analyzing data from operations areas such as patient flow, staffing levels, and resource allocation can help hospitals identify opportunities for improvement and optimize their operations, but it requires being able to capture and analyze that data from wherever people are working. This is why cloud-based solutions are so essential.

Together, Kyndryl and AWS are developing cloud technologies and applications that can help enable hospitals to:

- Streamline operations by improving communication and collaboration across all members of the care team.
- Access and share data from anywhere, at any time, using any device with an Internet connection.
- Help hospitals automate routine tasks to reduce human errors and improve efficiency.
- Refine workflows, reduce administrative burdens, and be able to react faster when emergencies arise.

Whether it is helping doctors to improve diagnostic accuracy through medical imaging solutions or automating supply chain management processes to make sure everybody has what they need to do their job, Kyndryl has a solution to help medical facilities better orchestrate their operations and improve the overall work experience.

## 02 Conclusion

Modern cloud technology combined with analytics, AI, and ML has unlimited potential to improve healthcare experiences—and it's happening right now—from having simple instant access to patient health records to using cloud-based analytics tools that do real-time data analysis and improve decision-making and patient outcomes.

Through our collaboration, AWS and Kyndryl are able to help hospitals and healthcare facilities accelerate their digital transformation journeys and leverage the power of cloud computing to create exceptional experiences for their employees and their patients.

### Learn more about Kyndryl and AWS

Visit [Kyndryl Healthcare](#) to find out how we help providers deliver improved patient care, experiences, and outcomes. Find out more about [AWS for Health](#).

### About Kyndryl

Kyndryl provides services related to cloud computing, data center management, network operations, and security. With its deep expertise in IT infrastructure management and its commitment to delivering exceptional customer service, Kyndryl is well-positioned to help organizations navigate the rapidly evolving technology landscape and achieve their business objectives.

### About AWS

Amazon Web Services (AWS) is the world's most comprehensive and broadly adopted cloud platform, offering over 200 fully featured services from data centers globally. Millions of customers—including the fastest-growing startups, largest enterprises, and leading government agencies—are using AWS to lower costs, become more agile, and innovate faster.

# kyndryl

© Copyright Kyndryl Inc. 2023. All rights reserved.

This document is current as of the initial date of publication and may be changed by Kyndryl at any time without notice. Not all offerings are available in every country in which Kyndryl operates. Kyndryl products and services are warranted according to the terms and conditions of the agreements under which they are provided.

The performance data and client examples cited are presented for illustrative purposes only. Actual performance results may vary depending on specific configurations and operating conditions. Kyndryl products and services are warranted according to the terms and conditions of the agreements under which they are provided.

