



3 Ways Cloud-Based EHR Deployment Elevates Healthcare Organizations

Benefits include enhanced agility, better security and accelerated innovation

An increasing number of healthcare organizations (HCOs) are moving their EHRs to the cloud. In fact, cloud-based EHR deployments are expected to grow faster than on-premises deployments for the foreseeable future.¹

“Healthcare is just starting to catch up to other industries in the use and deployment of cloud,” said John Barto, Chief Digital Transformation Officer, US Health and Life Sciences, Microsoft. “The fact is that a lot of tools and technologies are not going to be available on-premises in the future, making healthcare’s drive toward cloud adoption even stronger.”

But that is far from the only reason HCOs are moving away from on-premises EHR deployment. Cloud technologies, as well as EHR technologies, have continued to advance. Today’s cloud-based solutions offer functionality and scalability that was not available as recently as a few months ago.



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JOHN BARTO | Chief Digital Transformation Officer, US Health and Life Sciences | Microsoft

Modern technology enables improved outcomes for HCOs. Here are three ways cloud deployment can elevate an EHR and improve an organization’s performance:

1 Cloud EHR deployment enhances organizational agility. Today’s healthcare environment is characterized by rapid and constant change. Changes in regulations, payment models, delivery methods, population health and consumer preferences make it more critical than ever that HCOs have the ability to pivot rapidly.

The COVID-19 pandemic is an example of how fast the healthcare environment can change — and how important it is to be able to rapidly adapt to those changes. Remote work capabilities and virtual healthcare delivery became priorities during the pandemic. The momentum behind telehealth continues today, with usage rates 38 times higher than pre-pandemic.² Configuring an on-premises IT infrastructure to support those capabilities can take months between buying and provisioning hardware, building it out and testing it.

However, HCOs leveraging cloud EHR deployments do not have to contend with the time-consuming steps associated with building out, maintaining or troubleshooting issues with the hardware associated with on-premises infrastructure. The cloud automates backups, updates and gives HCOs the flexibility to build out any technology

gaps by using third party pre-built cloud applications. Because of the way cloud EHR deployments facilitate agility, organizations with cloud-based infrastructures are able to respond and adapt to changing consumer demands and external disruptions and to offer more employee flexibility such as high-performance remote connectivity to frontline healthcare workers in weeks instead of months.

2 Security and compliance in the cloud is more suited for the future of EHRs. Now that healthcare and data surrounding care involves connected operational technology/ Internet of Things (OT/IoT) devices, and physicians and clinicians are working outside the traditional care facility, CIOs are shifting their long-held use of on-premises EHR systems. Providers must monitor for anomalous user behavior or events from these new vectors and correlate them across systems to properly detect and respond to a threat. CIOs are transitioning from traditional on-premises environments that require multiple third-party applications to address these identity threats, data encryption and governance gaps, and injections of malicious code to move towards the benefits of a cloud infrastructure with native security products woven into the fabric of the environment. EHR vendors as well are shifting their offerings to a cloud-hosted model or SaaS at a rapid pace to lower their own risk profile.

Cybersecurity is critical as incidents continue to rise; for example, in 2021, two-thirds of healthcare organizations experienced a ransomware attack, nearly double the number experiencing an attack in 2020.³ In the first seven months of 2022, the U.S. Department of Health and Human Services (HHS) Office of Civil Rights has recorded hacking/IT incidents at 315 organizations, resulting in data breaches impacting more than 23 million patients.⁴ Establishing effective cybersecurity in today’s threat environment means not only protecting against intrusions, but also establishing identity management, data encryption, vulnerability management and segmented networks to prevent breaches from spreading, as well as instantly accessible backups to support disaster recovery.

Unfortunately, most HCOs do not have the resources to deploy a robust, multi-layered security approach across physical datacenters, infrastructure and operations. That is where cloud deployment can make a significant difference. “Microsoft spends more than \$1 billion each year on security capabilities,” said Barto. In addition, Microsoft employs thousands of cybersecurity experts and analyzes more than 24 trillion security signals each day.⁵ “Cloud EHR deployment enables healthcare organizations to benefit from the significant expertise and resources that cloud providers can deploy against cyberthreats,” he said.

3 Cloud EHR deployment accelerates opportunities for innovation. The consumerization of healthcare means that healthcare is more competitive than ever. Consumers are searching the internet to identify which providers and organizations offer the most convenient care at the highest quality and lowest cost.

An HCO's ability to innovate is key to improving patient care and meeting consumer expectations. On-premises EHR deployment can be a formidable barrier to innovation because it keeps the organization's data locked up in on-premises silos. Exporting that data and using it outside the confines of

the on-premises infrastructure incur costs from having to overcome those technology barriers.

Cloud deployment, however, enables innovation and data interoperability by placing the EHR and related data adjacent to advanced tools and technologies such as artificial intelligence (AI), natural language processing (NLP), text analytics and business process workflow analysis tools. The proximity of the EHR and related data to these advanced technologies makes it easier and faster for HCOs to explore, deploy and scale innovative approaches to everything from patient engagement to care coordination to revenue cycle management.

Cloud-based capabilities ultimately enable HCOs to shift to an innovation culture and to explore new and more effective ways of delivering healthcare. "EHR deployment in the cloud is about much more than just moving infrastructure," said Barto. "Moving to the cloud provides organizations with the agility they need to be competitive – that makes it a business imperative."

To learn more about the benefits of moving your EHR to the cloud visit: <https://aka.ms/EpiconAzure>.

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