



Reaching for Success in the Cloud

Leading experts discuss how Epic on Microsoft Azure supports digital transformation

While the healthcare industry is no longer dealing with the initial crisis period of the COVID-19 pandemic, the pandemic continues to influence how care is delivered and managed. Because of this, the need for digital transformation, which was greatly accelerated during the first stages of the pandemic as many healthcare organizations (HCOs) shifted to telemedicine and other virtual care options, remains strong.

As HCOs strive to succeed in a rapidly changing environment, they face a host of challenges, and many are discovering that migrating to the cloud is required to reach their digital transformation goals. During “Epic to Azure, Start Your Journey,” a webinar sponsored by Kyndryl and produced by HIMSS, Beverly Bell, Senior Partner for Healthcare and Life

Sciences at Kyndryl, and Marty Loughlin, Director, Channel Sales, Healthcare and Life Sciences at Microsoft, addressed these challenges, described the benefits of the cloud and outlined a migration strategy, specifically discussing how to migrate Epic to the Microsoft Azure platform.

Dealing with shifting circumstances

The move toward digital transformation is unfolding amid myriad difficulties. Bell and Loughlin cited the following complicating factors:

Unrelenting demand. IT departments are facing an unprecedented need for their services. “This comes about through a multitude of avenues such as acquiring provider practices, merging of hospitals and ... the increased volume of patients seeking medical care,” Bell said. In addition, according to Bell, consumers expect to manage their health themselves with digital tools and are calling for HCOs to support this effort.

Workforce shortages. Along with this ever-increasing demand for their services, IT departments are also dealing with a shrinking workforce and worker burnout. “The lack of workforce support for IT systems is widely documented in the industry,” she said. Clinicians are facing their own staffing shortfalls as well, which means that nurses, physicians and other patient care staff may need the ability to use laptops and other mobile devices in a variety of locations around and outside the hospital’s four walls to provide care.

Unanticipated security gaps. Even as it empowers consumers and other stakeholders to do more with data, digital transformation also opens up more possible vulnerabilities in an organization’s security.¹ Not only are more healthcare employees working from home or shuttling between different facilities, but patients are increasingly adopting Internet of Things (IoT) medical devices for remote monitoring of chronic conditions. These significantly increased attack surfaces, leading to HCOs facing unprecedented levels of ransomware and other cyber attacks, which Bell calls an “ever-expanding societal threat.”

“Ransomware is a threat every day to every one of our customers, and it’s something that they’re taking very seriously,” Loughlin added.

Revenue cycle dilemmas. The pandemic continues to cause major impacts to cash flows for HCOs. Although patient volumes have increased in many areas, delay of care and deferral of higher-margin procedures such as surgeries have contributed to a steep decline in revenue for many providers.² As the healthcare landscape continues to evolve, HCOs are increasingly looking for ways to control costs and increase efficiency.

Regulatory compliance issues. Healthcare has long been a highly regulated industry, and regulations are changing rapidly in response to the pandemic and to growing concerns over the use and protection of sensitive patient data. Recently, the National Institute of Standards and Technology (NIST) unveiled an update to its healthcare cybersecurity guidance,

reflecting these new security considerations.³ Plans for keeping the network compliant with all applicable regulations should be part of any HCO’s cloud migration strategy. “[Regulatory forces] have become more poignant when accompanied with all the other mounting challenges that are faced by a healthcare organization,” Bell said.

Experiencing cloud benefits

Amid these obstacles to achieving digital transformation, the cloud emerges as a viable – and often preferable – replacement for on-premises IT systems. “The cloud offers a different alternative,” Loughlin explained. “It’s going to be able to provide agility and allow you to optimize how you construct your solution.”

Computing in the cloud offers enterprise-wide advantages:

Improved agility. “The cloud provides a great way to address M&A activity,” he said. As many HCOs are adding or divesting themselves of health systems, the scalability of Microsoft Azure can help address those business requirements, including scaling out certain capabilities for rapid project rollouts.

Cost savings. While, with on-premises solutions, an upfront commitment must be made to secure fixed capacity which may not be required, the cloud offers a variable cost model and elastic pricing. This enables HCOs to experience cost savings by only paying for what’s needed to cover current workloads. “In today’s economic environment, cost is a top priority for sure. Being able to take advantage of the cloud to cost-manage these critical components ... and also reserve the instances is really a key advantage of Azure,” Loughlin pointed out.

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MARTY LOUGHLIN |

Director, Channel Sales, Healthcare and Life Sciences | Microsoft



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Enhanced security and compliance. Microsoft Azure provides next-generation tools that empower HCOs to meet security and compliance needs. More specifically, Azure supports key architectures that can help reduce the threat of ransomware.

Accelerated hardware refreshes. According to Loughlin, getting easy access to hardware refreshes is another key priority for EHR on Azure. With the cloud offering, updated compute and storage platforms can be deployed when supported by Azure, and customers can take advantage of ongoing Azure investments.

Healthcare analytics. Azure offers a "secure way to leverage artificial intelligence and business intelligence that can be used to create insights that result in meaningful outcomes for clinical staff and patients," Loughlin said. "It is a great way to save capital expenses because this is just a natural fit for the cloud to be able to host analytic solutions." These Azure capabilities can complement Epic's analytics and AI tools.

Disaster recovery. With the growing threat of cyberattack, as well as the ever-present possibility of natural disaster, Loughlin said that disaster recovery is a point of great interest to HCOs today. Recovering from human-caused or natural disasters is expensive, but the cloud can be an effective part of an HCO's strategy. "Many of our customers are leveraging Azure for disaster recovery today," he noted.

Going for the win

With so many potential advantages, more HCOs are looking to migrate their EHRs to the cloud and, more specifically, to migrate Epic to Microsoft Azure. "Everyone's in a different state of what their requirements are, and so we offer multiple use cases," Loughlin said.

Bell agreed that each hospital starts its journey to the cloud from a different point. When working with healthcare clients, however, Kyndryl, an IT infrastructure services provider, employs the following multi-step cloud migration approach, which accounts for individuality while also providing HCOs with a recipe for success:

1. Understand and communicate your organizational objectives.
2. Put objectives and priorities into use cases to create a relatable story and to envision successful outcomes.
3. Prepare a detailed project plan.
4. Share the project plan, as well as the reference architecture and other related documents, with Microsoft and Epic to ensure that all stakeholders are in sync and that the project moves forward in a positive manner.
5. Start with a pilot, such as hosting the Epic training environment, to gain valuable insights prior to putting the full production environment into the cloud.
6. At the conclusion of the pilot, design an Epic project based on the cloud specification guide that the hospital requests from Epic.
7. Ensure that Epic and Microsoft also review and accept the project design.
8. Develop a financial model that demonstrates the project's expected costs.

Experiencing success

Several HCOs have already completely migrated Epic to Microsoft Azure and are in "full production. They no longer need any on premise solutions for Epic ... The mission critical application is on Azure, it's secure, the performance is there," Loughlin noted.

St. Luke's University Health Network, for example, has migrated Epic to Azure and has quickly experienced highly secure, efficient, insightful and responsive growth.

"That is the feedback that we're getting from HCOs that are in full production. It is a great solution today for those folks," he said.

Working with the best partners

The Kyndryl and Microsoft partnership has empowered many organizations to further their digital transformation as they move their computing systems to the cloud.



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BEVERLY BELL | Senior Partner for Healthcare and Life Sciences | Kyndryl

“Kyndryl and Microsoft ... have been working together for over a decade across multiple industries, including healthcare. And because of that, we know each other and can bring that forth in each project,” Bell pointed out. “And Kyndryl has literally thousands of certifications on Microsoft Azure. We bring forth that experience to each of our projects as well.”

Indeed, the Kyndryl/Microsoft team offers the experience and expertise that HCOs need.

“We work very closely in the largest healthcare systems in the world, and we work hand-in-hand together. We’re able to leverage the investment and reference architecture collectively. Kyndryl and Microsoft have a very tight working relationship. Collectively, we have great experience running Epic systems

both on-prem and in the cloud,” Loughlin concluded. “We’ve got trusted advisor relationships with healthcare providers today based on the capability that we’re able to leverage together. And very importantly, we offer a secure, compliant solution that meets all the requirements of our healthcare providers. So, the Kyndryl and Microsoft partnership brings absolutely the best forward.”

To learn more about how Kyndryl can support your healthcare organization’s digital transformation efforts, visit our [website](#).

Epic is a trademark of Epic Systems Corporation.

References

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About Microsoft Cloud for Healthcare

Microsoft Cloud for Healthcare provides trusted and integrated capabilities that makes it easier for organizations to create personalized patient experiences, gives health teams connected collaboration tools, and adopts data standards important to healthcare. Together with Nuance, customers can access the broadest and deepest set of trusted AI solutions to address the biggest challenges in healthcare. Organizations can use AI to give full visibility into data, relieve provider administrative burden, boost clinician productivity, and increase workflow automation to improve quality of care, transform the patient experience, and deliver better care faster and at a lower cost. Our growing ecosystem of partners are dedicated to serving customers by helping provide more integrated healthcare solutions or identify new opportunities for innovation that extend the core cloud and Nuance capabilities across the continuum of care. aka.ms/cloudforhealthcare

About Kyndryl

Kyndryl works at the core of businesses that move the world. With more than 90,000 skilled professionals serving customers in over 60 countries, we design, build, manage and modernize the mission-critical technology systems that the world depends on every day. We are committed to the health and continuous improvement of the vital systems at the heart of the digital economy. With our partners and thousands of customers, we co-create solutions to help enterprises reach their peak digital performance. Our world has never been more alive with opportunities. Together, we can seize them. To learn more, visit www.kyndryl.com.

