Digital Transformation 2.0:

The Next Phase for Healthcare

The healthcare sector has embraced the notion of digital transformation as the catalyst for improving patient care and building more efficient, streamlined operational processes that meet the needs of caregivers, patients and healthcare related organizations alike. Thanks in large part to digital transformation initiatives, physicians and caregivers today are able to approach healthcare in a more holistic fashion.

In fact, the healthcare industry as a whole is undergoing a transformation, shifting to providing value of healthcare over volume and changing the focus to treating the patient instead of just treating the condition.[1] As such, providers are looking to technology—and digital transformation—to enable patient-centered care that goes beyond the walls of doctors' offices and healthcare facilities.

The first wave of digital transformation enabled technologies such as electronic health records, cloud-based applications and services and mobile devices to enable instant access to healthcare information and equip caregivers with the tools they need to provide more accurate and better-quality care. Beyond improving the patient experience, these technologies also impacted the back-office functions of providers, helping administrators and third-party providers such as insurance companies work together to find greater operational efficiencies and less operational expense.

The next phase of Digital Transformation proposes to make healthcare even more effective, through tools and services that help providers work proactively to keep their patients well. This whole health concept is much easier to attain with technologies such as artificial intelligence, analytics, wearables and mobile health (mHealth) apps, to name a few.

Continuing the Benefits of Digital Transformation

Organizations of all sizes in all sectors are challenged with having to do more with less. Increased customer expectations mean traditional processes, methods and technologies no longer are enough, forcing many organizations to look for ways to serve customers in a more innovative yet cost-effective way.

Digital transformation holds the dual promise of innovation and cost efficiencies, a message the C-suite is hearing. In fact, a recent global survey of 500 C-level executives found that reduced IT costs was the top goal for IT transformation for 75 percent of respondents, followed by being first to market with new products and services (73 percent) and

reallocating funds to strategic business projects (67 percent).[2] What's more, 61 percent had planned to allocate as much as one-quarter of their IT budget to transformation in 2018, up from 54 percent in 2017.[3]

The healthcare space has seen slower digital transformation efforts compared to other industries, but the spending outlook for digital transformation over a five-year period in healthcare is healthy: IDC estimates that spending by healthcare organizations on digital transformation technologies will increase by 22 percent by 2023.[4]

In a survey of more than 300 executives across a variety of industries, 71 percent of respondents said that 50 percent or more of their business decisions now include analytics. What's more, 63 percent of survey respondents who have a finance function said they are using data and analytics to find new opportunities to fund business growth.[5]

Digital Transformation 2.0 in Healthcare: The Technologies

As previously noted, the second phase of digital transformation proposes to make healthcare even more effective, through tools and services that help providers work proactively to keep their patients well. Among the technologies the healthcare sector is adopting in its digital transformation 2.0 efforts are those that further the idea of whole health while enabling caregivers and healthcare facilities to work smarter.

Analytics, along with big data, is helping healthcare providers tackle myriad issues such as understanding the best times to staff a facility.[6] Such insight can help healthcare facilities save money and improve patient satisfaction by having appropriate staffing levels when necessary, thereby saving patients from having to wait hours to be seen. Analytics also could be used to find patterns in multiple factors to help determine which patients could be at risk of abusing opiods,[7] thereby helping stem what is currently a national epidemic.

Artificial intelligence, too, is proving its use already to healthcare providers and administrative staff alike. For example, AI is being used with electronic health records to make them easier to navigate and to automate some of the more routine processes associated with using them. It's also being used in labs to "read" pathology slides and identify issues to help clinicians better identify potential diseases or illnesses.[8]

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Wearables may not seem like new technology anymore, but their adoption in the healthcare space has been widespread and growing. Wearables are being used to monitor patient health, collect data in clinical trials and a variety of other tasks that otherwise would require patients to visit the doctor's office. Eliminating such visits can free physicians to spend more time providing more quality care to those patients who need it, not to mention freeing patients from having to come into the office.

Some postulate wearables may even signal the future of healthcare: Healthcare and technology experts attending the World Economic Forum Annual Meeting in Davos, Switzerland, in January 2018 noted they believe wearables and other similar technologies will play a major role in patient-centered preventive care, as such devices increasingly are being used to monitor heart rate and blood pressure.[9]

Less discussed but growing in use among providers is the use of **social media** in health management. Increasingly, healthcare providers are using the power of social networks to convey health-related

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information to large groups of people; to provide updates on events or occurrences that could impact the health of a population, such as smoke levels of nearby forest fires; and to reach audiences consisting of current and potential patients.

Social media also can be used by researchers to track demographic and healthcare trends such as the spread of influenza or food poisoning. Such information could help providers determine where the next most likely areas of outbreak will be and take appropriate steps, such as increasing staff or stocking up on necessary supplies in those areas.

And finally, **mHealth** is being adopted by a number of healthcare organizations to better connect with patients. Mobile apps are being used in a number of ways, including accessing clinical information, communicating with and monitoring of patients using medical wearables and collaborating with other healthcare providers to determine treatment options. mHealth has an added concern of security, however, as the information flowing through these apps is patient-centric and could put a healthcare provider at risk should the mobile device be lost or stolen.

Other technologies exist that can be included in a healthcare organization's digital transformation. The ones listed are those that can assist organizations in become more value-focused as well.[10]

Building the Infrastructure for Digital Transformation 2.0

Digital transformation 2.0 in healthcare requires an infrastructure that is capable of supporting multiple technologies both on-premises and in the cloud and can manage the massive data storage and back-and-forth transport that many transformative technologies require.

As organizations strive to push their digital transformations to the next level, they need an environment that supports digital transformation from every point on the network. Hybrid cloud and network environments, SD-WAN and high-speed broadband are just some of the technologies that can enable healthcare organizations to better manage their patient-focused and back-office applications across all locations, while networking components such as WiFi and unified communications can keep all employees of a healthcare organization in touch wherever they are and whenever, with no impact on productivity.

No digital transformation happens overnight, regardless of how far down the path healthcare organizations are already. To help them as they move deeper into digital transformation without overly stressing their current network and to help streamline processes for IT managers, managed services can help tie disparate systems together and "fill in the gaps" as healthcare providers update their current infrastructure and after networks have been upgraded.

Working with a network service provider can help IT leaders reimagine how to build a modern network and IT infrastructure that's capable of handling the all aspects of digital transformation 2.0. Healthcare organizations can leverage virtual and physical private Ethernet connectivity to assure there are no issues regarding network performance and availability for critical applications at all company locations. They also can receive all or some of their most critical connectivity functions as a managed service, including managed connectivity, WiFi, security, voice and business continuity, among others.

Conclusion

Healthcare has seen the benefits of digital transformation, with physicians and caregivers today

now able to approach healthcare in a more holistic fashion, focusing on the whole patient and not just the disease or condition. In today's healthcare environment, providing value-based care is being favored over volume-based care, putting the focus on providing a positive patient experience from first visit to final billing through faster, more efficient service and deeper patient engagement.

In the second iteration of digital transformation, healthcare organizations are building upon the foundation laid with their first-generation digital transformation efforts to provide higher levels of patient care and make healthcare even more effective.

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