

Healthcare IT Modernization in the Next 5 Years

Implementing the Lessons of COVID-19



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The COVID-19 pandemic accelerated a decade's worth of technology adoption to occur in just a few short months. Whether delivering new patient services; enabling a remote workforce; implementing self-service triage tools; or setting up testing centers and vaccination sites in offices, gymnasiums, and parking lots, healthcare IT had to adapt quickly.

Frost & Sullivan's Healthcare & Life Sciences practice invited 3 healthcare IT leaders to discuss their experiences during the first 2 years of the COVID-19 pandemic, focusing on 3 key questions: When will healthcare (hopefully) return to normal? What changes will healthcare providers embrace? In what ways has healthcare been changed forever?

This article is based on a recent webinar conducted by Frost & Sullivan.

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Learning Agility by Empowering Teams and Embracing New Technologies

The COVID-19 pandemic has required healthcare systems to act with a level of agility that many would have thought impossible back in 2019. Success would not have been possible without decision makers willing to take risks by creating teams that could rapidly solve problems and embrace the technologies needed to achieve organizational goals.

First, the pandemic demonstrated the value of agile problem-solving teams. Heightened demand for care, coupled with a simultaneous lack of resources, forced healthcare systems to empower teams that could act quickly, creatively, and decisively to solve challenges as they arose. They found that these autonomous teams could successfully deliver safe, effective solutions without the traditional hierarchy and oversight they had previously considered necessary.

Second, necessity forced healthcare systems and regulators to abandon their previous objections to a range of technologies and experience firsthand the value of these innovations. Healthcare systems solved core connectivity challenges to enable constant care delivery and found that they had successfully created systems that could deliver better care, not only during the pandemic but on into the future.

Many of these solutions demonstrated the value of creating a cloud strategy and robust digital infrastructures, which equipped healthcare systems with the platforms necessary to move quickly and securely. Solutions like those from VMware helped providers build scalable digital infrastructure and secure digital work environments, critical assets in responding to the pressures of the COVID-19 pandemic. Cloud-based enterprise solutions have proven their value under the most challenging circumstances, and the webinar participants believe these types of solutions are here to stay, providing a wide range of benefits.

Reflecting on what they have learned and experienced in the past 2 years, these leaders recognize that they have succeeded not only in responding to the pandemic, but in actually improving the way they deliver care, getting closer to and better addressing their patients' needs. They are confident that these lessons will not be forgotten once the pandemic is over. The challenge now is in building a more agile and innovative healthcare ecosystem and extending the knowledge gained throughout their systems.

“There’s a real urgency to build on that work that has been done and make sure that nobody takes a step back.” James Millington



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Remote Workforces Create Opportunities and Challenges

Employers quickly responded to the COVID-19 pandemic by, where possible, having their employees work from home. These initiatives were vital to implementing social distancing policies, conserving personal protective equipment (PPE), and slowing the spread of the virus. As remote work has remained the norm for large percentages of the population, both employers and employees have discovered that it may be more viable than previously considered. Workers have especially embraced remote work as a preferred model going forward, whether motivated by a desire to reduce commute time, achieve a better work-life balance, or migrate to areas of the country that offer lower costs of living. As witnessed in a range of other industries, healthcare is seeing the same pressures to support remote work as a means of attracting and retaining the best talent across a wide range of roles.

Healthcare IT is playing a central role in enabling this transition to hybrid and remote work models. Supporting a distributed workforce increases demand to address connectivity, distribution, and security challenges, and budgets are being stretched where hybrid working models require a duplication of hardware at the office and at home.

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Extending the Hospital into the Home

Many health systems have experimented with a range of technologies and care models that actively move care into the patient's home. Whether through telemedicine, remote patient monitoring, or formal Acute Hospital Care at Home programs, many of them experienced success in expanding their reach far beyond the hospitals.

Health systems and patients share an interest in technologies that move care closer to the home. As one panelist explained, if they were able to offer a digital solution that would let a patient go home a day earlier, patients would say, "Get me out of here!"

After investing in remote patient monitoring and Acute Hospital Care at Home programs, "the natural step is ... scaling up all the things that you can safely start to do there, given the fact that now you can monitor patients in a much more accurate way from afar." Eric Williams



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—Eric Williams



Cybersecurity Remains a Continual Threat

It is striking that, even as healthcare leaders continue to address the once-in-a-lifetime challenges created by the COVID-19 pandemic, cybersecurity concerns may represent an even greater threat to healthcare systems and their ability to deliver care.

One panelist shared a colleague's observation that may help put cybersecurity concerns in perspective: The care provider had worked in countries familiar with famine, had worked through military coups and dictatorships, and yet the ransomware attack they experienced was the absolute hardest thing the colleague had ever had to lead through.

Notably, the agility granted from adopting new technologies and the flexibility gained from embracing remote work that were key in responding to COVID-19 have now created a system with more devices, more connections, and more diverse internal and external users. Healthcare IT exists in a world created by COVID-19 and is up against cybersecurity challenges that will extend long into the future.

One interesting observation highlights the breadth of the threat, noting the potentially overlooked fact that a smart device – a smart IV pump, remote patient monitor, or telemetry system – is a computer, with many of the same exposures to cybersecurity threats that endanger a traditional computer. As one panelist noted, connected devices, and particularly legacy devices that may be on a 10-to-15-year replacement cycle, represent one of the biggest risks in this new connected ecosystem.

“In the past, [we had] very separate silos by design, but now, you realize every new device that comes into the org talks in some way or another, and there's a risk there.” Eric Williams

Healthcare systems have responded to the COVID-19 pandemic with courage, creativity, and determination, accelerating a decade's worth of advances in care practices and technologies in just a few months. While these healthcare IT leaders look forward to the day when the pandemic has passed, all believe that they will never return to “normal” and that the lessons learned have positioned them with new skills and perspectives for responding to future challenges and opportunities.



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—Eric Williams

Key Takeaways:

No going back: For all of the challenges and tragedies suffered during the COVID-19 pandemic so far, healthcare leaders recognize that some of their responses were not quick-fixes but fundamental improvements in the way they care for patients.

Agile teams work: Healthcare systems have seen firsthand that teams operating without some of the traditional hierarchy could be better, faster, and cheaper. Many will now reconsider the balance between oversight and autonomy in managing their organizations.

Cybersecurity remains a critical concern: From the board level on down, healthcare systems recognize that as bad as the COVID-19 pandemic has been, cybersecurity threats represent a critical, continual threat to their organization's ability to care for patients.

Remote and hybrid work are here to stay: The work-from-home model requires a proliferation of access points, devices, and scenarios that create security challenges, but this is the environment healthcare IT faces going forward.





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