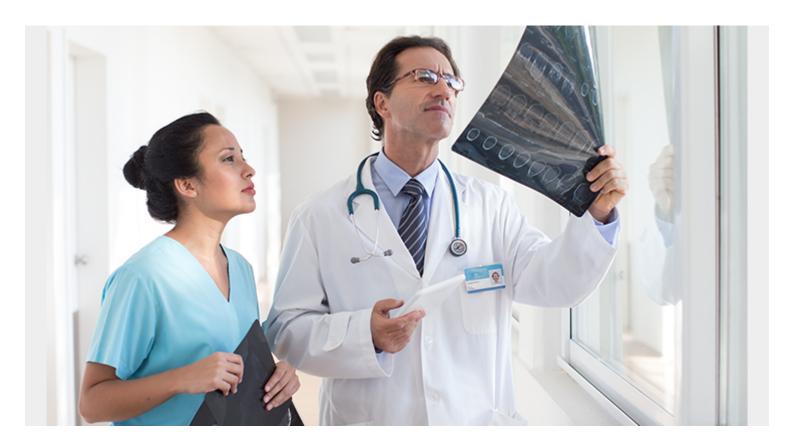# WHAT 5G MEANS TO HEALTHCARE ORGANIZATIONS—OPPORTUNITIES, CHALLENGES, AND SOLUTIONS

The evolution to 5G comes at an opportune time for healthcare organizations as they make telemedicine and remote care a key element of data-driven business strategies. This allows them to use resources more efficiently, reduce cost, and improve quality and customer experience.

At the same time, big data and cognitive technologies play an expanding role in modern medicine as well. Artificial intelligence (AI) supports clinical decision-making. Machine learning helps radiologists spot otherwise invisible tumors. The examples grow every day—and so do the vast amounts of data they leverage, with a demand for near-zero latency to support real-time use cases.

All in all, the speed and latency of 5G networks offer truly transformational opportunities for healthcare—but it also brings new operational requirements around automation, vulnerability management, cost, and capacity management.

Automation

The advent of 5G opens up a broader span of applications, data, and infrastructure to healthcare organizations to unlock competitive advantage. But this new era will also involve greatly increased speed, complexity, and scale of data flows and business processes. Workflow orchestration capabilities will play a key role in enabling healthcare organizations to embrace these new

technologies while maximizing infrastructure value, including:

- Formalizing and automating key business processes and workflows
- Automating, monitoring, and managing workflows across computing and software platforms in hybrid, on-premises, and cloud architectures
- Using predictive analytics to detect potential delays or failures before they happen, and automatically triggering remediation
- Automating, orchestrating, monitoring, and troubleshooting data exchanges
- Connecting departments and facilitating work across silos for greater speed and simplicity

Vulnerability management

As healthcare infrastructure becomes more complex, IoT devices proliferate, and integrating increases across third-party applications, healthcare organizations' mindset around vulnerability management must evolve to become more proactive and pre-emptive. At this level of complexity, manual efforts will fall far short of the ability to protect data and systems—a critical priority given the risks posed by rampant ransomware attacks targeting the healthcare industry. Meanwhile, compliance with regulations such as HIPPA, HITECH, and PCI DSS remains essential as well.

To meet these challenges, healthcare organizations are adopting SecOps strategies in which automated intelligence helps analyze, prioritize, and remediate risks based on business impact. Automated cloud remediation and compliance enables providers to detect and close security gaps and prevent regulatory lapses across constantly-changing cloud environments and applications.

Cost & capacity management

As healthcare organizations leverage 5G data-sharing, they will look to a hybrid of cloud and on-premises solutions to manage their volume and meet spikes of capacity requirements. The fast, frictionless scalability offered by the cloud makes it possible to accommodate the vast amounts of data involved in modern healthcare, while tapping into compute and storage resources as a service allows healthcare organizations to adapt quickly and cost-efficiently to shifting needs.

At the same time, growing cloud utilization can also increase management complexity as well as the risk of security breaches and a growing regulatory burden. To take full advantage of the agility and elasticity of the cloud, healthcare organizations need to be able to migrate data to and across environments easily and securely, optimize the placement of cloud-based workloads for performance and cost, ensure business continuity, maintain data privacy, and ensure the integrity of clinical data. Automated infrastructure management can accelerate cloud migration while simplifying ongoing cloud operations processes.

To learn more about supporting 5G and driving transformation in the healthcare industry, visit our Healthcare Innovation site.