



Unlocking enterprise innovation in the cloud

Strategy and blueprinting
for health care organizations

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Introduction

A leading health care provider saved \$50 million, which is 20 percent of its total operating budget for annual information technology (IT) spend, by moving its applications and data to the cloud. And these impressive cost savings are just one benefit of the transition—unlocking enterprise innovation in the cloud is enabling the organization to:

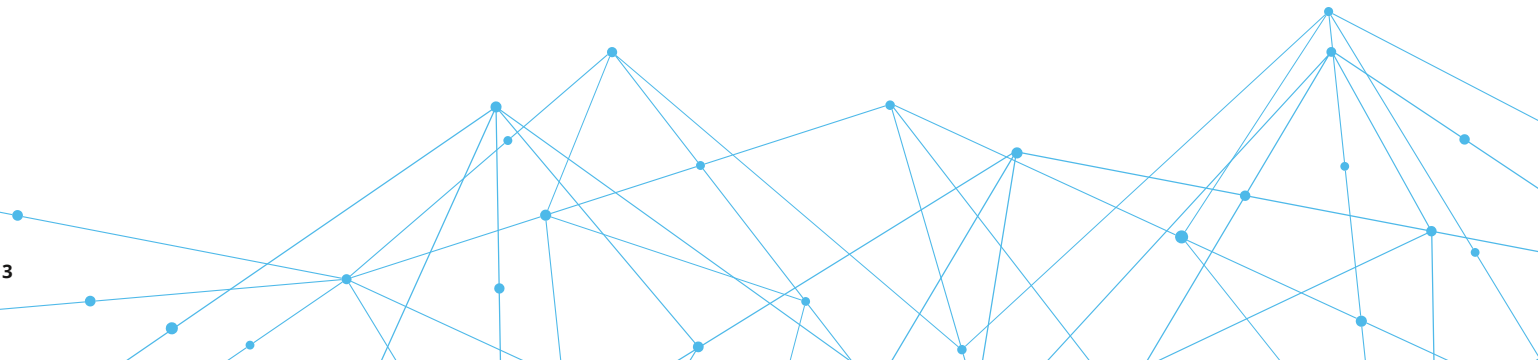
- Accelerate solution development capabilities and boost organizational agility
- Support new channels of care, such as at-home diagnostic testing and telemedicine
- Create digital processes to increase automation and operational efficiencies
- Leverage advanced analytics and artificial intelligence (AI) to revolutionize diagnoses, treatment planning, patient monitoring, and drug discovery
- Manage health data in a secure, trusted, automated, and error-free way via next-generation technologies, such as blockchain, enabled by security and privacy-by-design principles
- Modernize the full suite of applications to provide agile functionality and delivery, and greater opportunities to create an insights-driven organization.

How did the health care provider maximize its cloud transformation? By taking a holistic view of the organization, its operations, and IT optimization levers; benchmarking to identify cloud opportunity areas; developing a cloud suitability analysis, migration and modernization strategy, and roadmap; identifying process changes required to support cloud implementation; and moving 90 percent of its applications to the cloud.

This is just one example of how moving to the cloud's resilient, scalable technology platform can spark transformational changes that open the door to new growth pathways, expand clinical and business value, and set health care organizations on a course toward the [Future of Health](#). This article explains why this is the time to move to cloud, discusses the importance of starting with a cloud strategy and blueprint, and details potential cloud-related challenges and benefits for health care organizations.

Why cloud—and why now?

A confluence of powerful events is creating new business priorities and increasing the urgency of cloud migration. Health care leaders are concurrently facing immediate, red-hot financial, regulatory, and market challenges which are forcing them to create strategies for a shifting health care market that will look radically different in a few short years. Lastly, exponential data growth and increasing computing requirements require larger physical infrastructure investments, resulting in higher fixed costs to already cash-strapped organizations.



Hot challenges



COVID-19

COVID-19 is a catalyst that is producing significant budget pressures for health systems and forcing organizations to dramatically cut costs while continuing to meet shifting care demands.



CMS rules

Centers for Medicare and Medicaid Services (CMS) final rules on interoperability have upcoming implementation deadlines, which require budget allocations for capabilities and resources.



Cyber threats

Many health systems lack the scale and capital needed to combat ever-increasing and -evolving cyber threats and are considering various options to protect their IT assets.



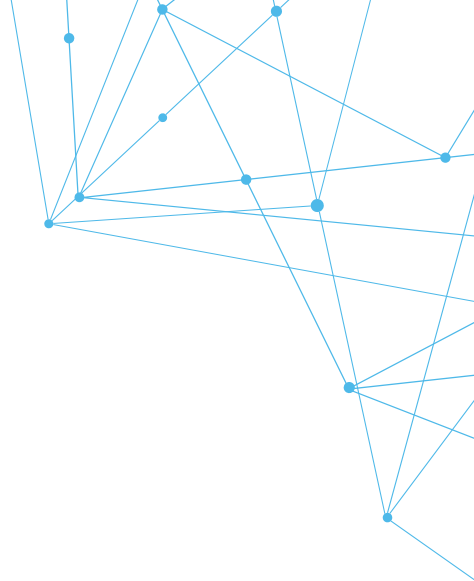
Data expansion

Organizations are being challenged to manage the unprecedented expansion of health care data and to build-out the infrastructure, capabilities, and tools they need to leverage analytics and insights to drive IT strategy.



Capital constraints

Financially constrained health care organizations need to balance numerous priorities for capital projects arising from market demands for growth, consolidation, and partner integration.



Big shifts



Consumer demands

Consumers are calling for more convenience, transparency, data security and privacy, and personalization in health care offerings to enable active health ownership.



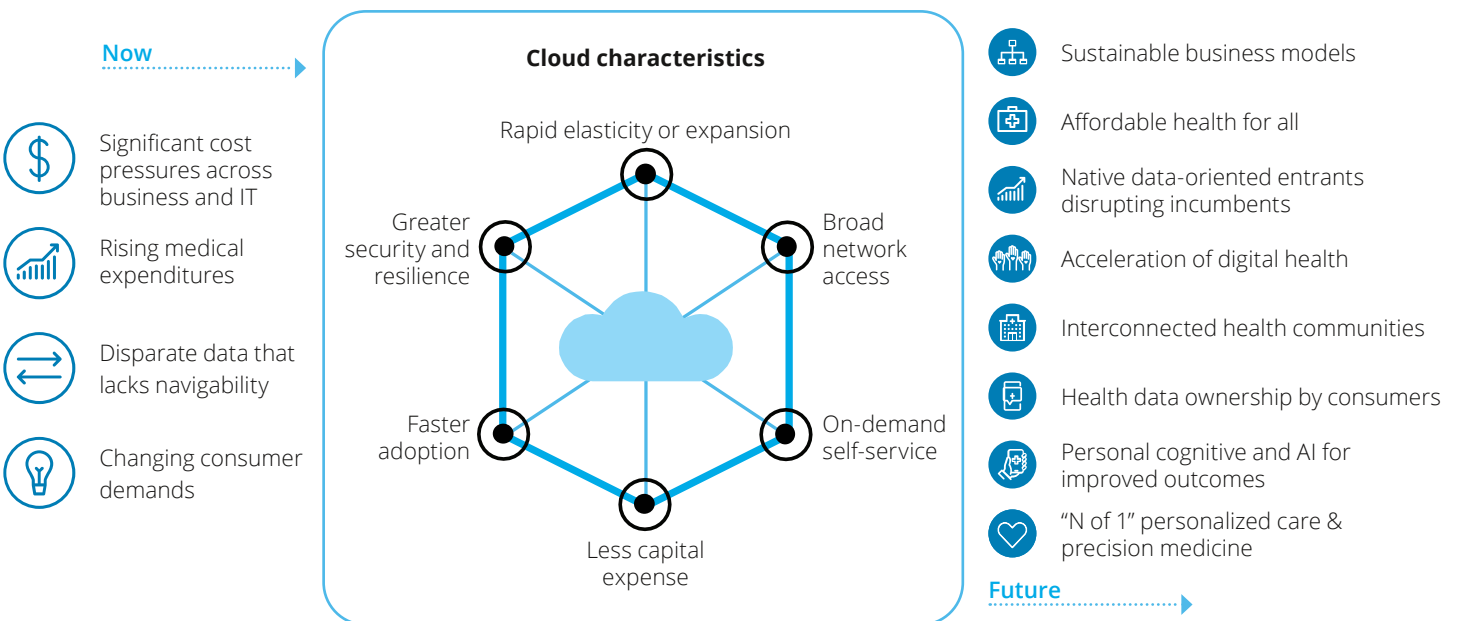
Future of Health

Health care organizations will be operating in a radically different landscape that will require them to adopt new capabilities and care delivery models, putting great strain on their technology platform.

Even before COVID-19 accelerated the use of digital health technologies, providers and payers were nearing an inflection point in their cloud adoption journey. Forecasted end-user spending in the cloud software market (IaaS, SaaS, PaaS, cloud management and security) for the US health care industry is expected to reach \$6.8 billion in 2021 and \$7.8 billion in 2022.¹ Health care investment in PaaS and IaaS is expected to accelerate even more in the post-COVID-19 environment as organizations look to balance costs with innovation.

Savvy health care leaders are looking to the cloud because it provides the performance, speed, affordability, agility, financial transparency, scalability, and security that is essential for organizations to address current challenges and move toward the Future of Health (figure 1):

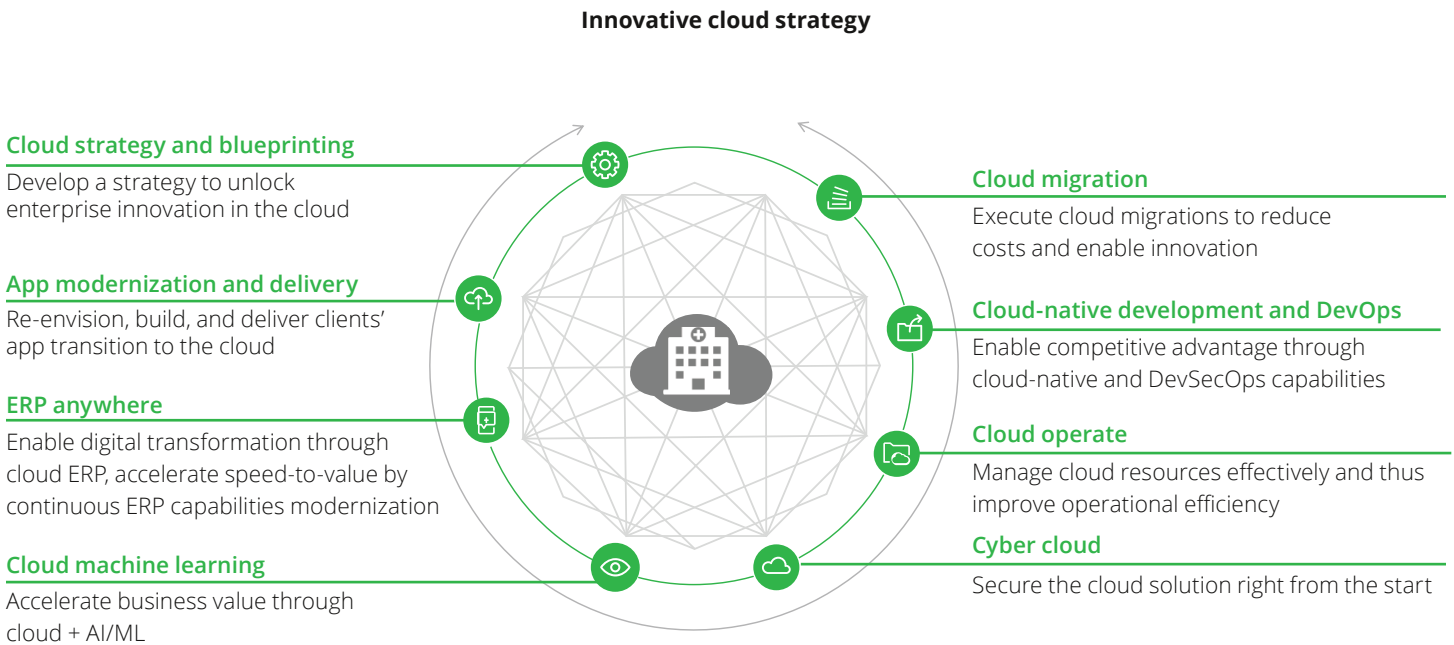
Figure 1. Cloud provides capabilities essential for health care organizations to address current challenges and move toward the Future of Health



1. [Healthcare IT Spending To Reach \\$40 Billion \(informationweek.com\)](https://www.informationweek.com/news/healthcare-it-spending-to-reach-40-billion).

A comprehensive, business-first migration approach—one which extends from strategy and blueprinting through application modernization and cyber security, and which embraces integration points across signature issues—is essential to successful cloud transformation (figure 2).

Figure 2. Comprehensive, business-first cloud migration embraces integration points across signature issues



Why is it important to start with a strategy and blueprint?

Some organizations view cloud as an extension of their existing IT infrastructure and jump straight into migrating individual applications and data assets without considering the potential enterprise-level advantages of a holistic cloud implementation. Additionally, migrating applications and technology debt ad hoc may preclude cost-saving optimization and rationalization opportunities.

Starting with a cloud strategy and blueprint enables a cohesive migration approach that aligns with the organization's strategic priorities. Implementing cloud without a clearly defined path forward may result in lack of organizational buy in, inability to maximize efficiencies/cost optimization opportunities, and functions treating cloud as merely another data center instead of embracing it as a catalyst for change.

Successful cloud migration is not just “lift and shift,” which alone will not deliver the strategic benefits achieved through cloud. The critical success factor is the organization’s ability to utilize cloud migration as an opportunity to transform. The strategy and blueprinting process should analyze the organization’s application portfolio and leverage all available options for an integrated transformation that includes application modernization and rationalization, platform modernization including cloud migration, and IT operating model optimization. The key is creating a deliberate strategy to modernize where business imperatives exist and “lift and shift” the rest to help drive cloud adoption and, ultimately, reduce fixed costs.

This approach:

- Assures buy-in from all key stakeholders, from engineering to senior leadership
- Streamlines operations; enables a phased approach to cloud migration
- Maximizes cost advantages; consolidates tech debt and application portfolios
- Creates an agile service delivery structure.

Let’s look at cloud strategy and blueprinting in action: A leading health care provider partnered with Deloitte to define its cloud migration strategy, develop a cloud suitability analysis and roadmap, and identify the changes required to mature processes to support cloud implementation. The organization migrated ~60 percent of its applications to the cloud, achieving a run-rate costs savings of 16 percent. Once migration is complete, run-rate savings will reach ~32 percent in perpetuity.



Lessons learned from strategy-based cloud migration

Position moving to the cloud as an enterprise transformation versus a cost reduction or technology improvement exercise. Develop a strategy for how IT integrates with the business using cloud. Adopt a cloud-first mandate.

Get educated about single-cloud and multi-cloud platforms, software and services, and the hyperscalers that provide them.

Remove redundant/outdated/unnecessary applications and technology debt before migration. Don't move them and plan to rationalize later.

Utilize self-funding mechanisms to offset initial costs. Recoup initial cloud migration costs and ongoing operational expenses with savings from retired assets rationalization, tax incentives and credits, and, potentially, significant incentives and credits from hyperscalers (both migration and ongoing operational credits).

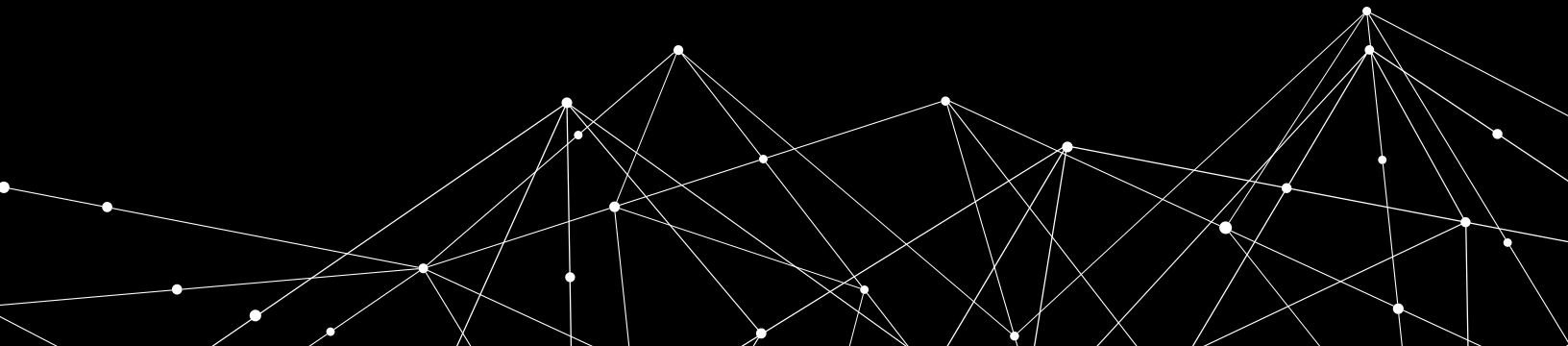


Establish return on investment (ROI) value realization mechanisms and governance at the project's onset.

Educate stakeholders on cloud's value. Establish technology and functional business sessions. Get the organization excited about the journey.

Establish dynamic computing plans before migration and initiate at the project's onset.

Focus on essential use cases that can deliver rapid value, including leveraging cloud-based analytics for improvements in care management, care delivery, research and clinical trials, patient experience, supply chain and procurement, revenue and payment models, and provider experience.









Cloud's benefits outweigh migration challenges


Moving a health care organization's data assets to the cloud—even when using a phased approach—is a complex undertaking. Core administrative systems typically have deeply embedded business logic and require large initial outlays to migrate. Also, compatibility on a single cloud may be challenging. In addition, health care data, technology, and privacy constraints are dramatically different than other industries and there is a shortage of health care-focused cloud professionals. Because of these challenges, many organizations team with consulting firms that offer proven cloud methodologies, technology accelerators, and health care industry experience.

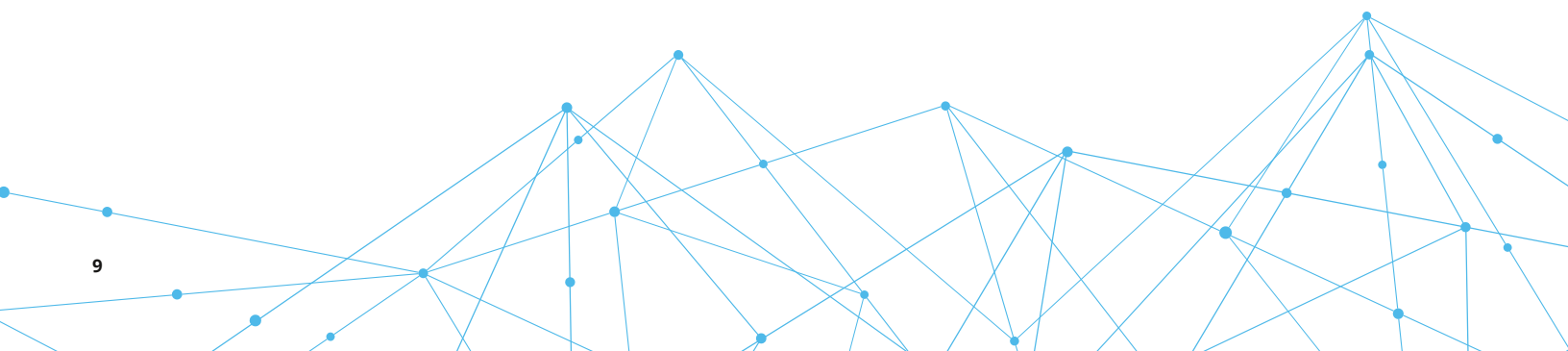
In general, migration challenges are more than offset by cloud's potential benefits versus on-premises computing solutions (figure 3).

Figure 3. Cloud vs. on-premises deployment models

Lens	Criteria	Cloud	On-Premise
 Strategic	Supports digital transformation vision	☆	☹
	Enables innovation, market disruption, and differentiation	☆	☹
	Quicker time-to-market	☆	☹
 Operational	Attract and retain qualified top talent	☆	☹
	Reliable, adaptable, and scalable	☆	☹
	Ease of management	☆	☹
 Technical	Rate of evolution and innovation	☆	☹
	Best-in-class	☆	☹
	Mature integrated offerings	☆	☹
 Financial	Optimal use of capital and operating funds	☆	☹
	Supports reduction in cost-of-care objectives	☆	☹
 Security and compliance	Security and compliance	☆	☹

 **Optimal:**
Meets or exceeds criteria with least amount of effort relative to the other option(s)

 **Sub-optimal:**
Meets criteria with moderate effort relative to the other option(s) or through workarounds



Are you ready to begin your cloud transformation journey? Let's talk.

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