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Healthcare Systems and Services Practice

What payers and providers can learn from successful cloud transformations in other industries

Cloud transformations can create value, but requires engagement from the entire healthcare organization.

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Broad consensus exists that the use of cloud technologies could unlock digital and analytics capabilities across the health-care spectrum. A recent McKinsey article "Cloud's trillion-dollar prize is up for grabs," shows that cloud capabilities have the potential to generate value¹ of \$100 billion to \$170 billion in 2030 for healthcare companies. The major driver of this value lies in enabling them to more effectively innovate (for example, new use cases in analytics, IoT, and automation), digitize (for example, stakeholder journey transformation), and realize their strategic objectives.

We are witnessing the acceleration of digital health (driven by increased consumer adoption), regulatory shifts (for example, more interoperability), investor activity, technology innovation (for example, healthcare offerings from tech giants), and business model innovations from healthcare industry incumbents, as we discussed in "The next wave of healthcare innovation: The evolution of ecosystems." Additionally, the COVID-19 pandemic has created the necessity to further accelerate the digital transformation in healthcare, as discussed in "COVID-19 as a driver for digital transformation in healthcare."²

Despite this potential, many healthcare companies, payers, and providers have not achieved the full potential value of cloud. In many cases, promising initiatives have stalled after falling short of expectations, never achieving the anticipated scale or value. We have identified a set of challenges based on our experience across a wide array of companies in healthcare and other industries:

- Business case focused only on nearterm IT cost savings: While cloud technology can drive substantial efficiencies across IT, (for example, infrastructure efficiency, IT automation) just limiting the use of cloud to IT initiatives alone limits the value capture to a fraction of the total cloud opportunity.
- Cloud is only an IT thing: Cloud transformations are not easy, and value realiza-

- tion typically lags investment by between 18 and 36 months. Without executive leadership sponsorship, leaders may struggle to build a compelling business case and sustain the required investment to realize the value.
- IT operating model versus an integrated business-technology operating model:
 Cloud requires new ways of working (for example, funding) and roles or capabilities (for example, full-stack developers, cloud engineers, translators). Not tackling the operating model changes as part of the cloud transformation and not driving alignment between business and IT at all steps of the transformation limits the realization of potential value.

Our experience across sectors shows five elements essential to, and characteristic of, a successful cloud transformations:

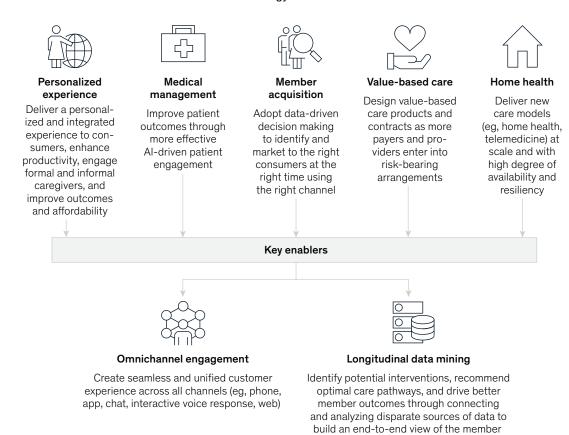
Align on a clear set of use cases that will deliver a compelling cloud-enabled value story: Most industries capturing value from the cloud have first focused their investments on a set of use cases (aligned by business domains) where data and analytics drive a disproportionate amount of the total value delivered. For payers and providers, these include five categories that cut across multiple business domains (Exhibit 1).

For example, a midsize payer was able to use cloud platforms for building a longitudinal view of members. This allowed the payer to improve its ability to grow its member base for a Medicare Advantage plan. Another payer transitioned their call centers to cloudbased, omnichannel call, and contact center services benefiting from cloud's scalable automation, data collection, and analytics capabilities necessary to navigate through the pandemic. Similarly, within health systems, many were able to quickly stand up their virtual health infrastructure, build omnichannel engagement capabilities and digitize clinical workflows leveraging cloud. One health system that is participating in the Centers for Medicare & Medicaid Services' (CMS) Oncology Care Model is using cloud-

Exhibit 1

Five healthcare categories that benefit from cloud technology.

Actions to consider on how to use cloud technology



based advanced analytics to improve care coordination and patient engagement. Healthcare organizations are leveraging cloud to tackle the challenge of data interoperability by deploying easily scalable HIPAA-compliant interoperability APIs to ingest vast quantities of healthcare data (including electronic health record data) at scale with zero physical infrastructure.

The use cases should be prioritized and sequenced into a roadmap based on their value potential, implementation complexity, and time to impact while also factoring in data privacy/residency and regulatory considerations (for example, CMS data retention policies).

Focus on business outcomes: Each cloud initiative needs to have specific business value attached to it and not just be limited to

IT efficiency. CIOs and CTOs will need support from the rest of the management team to put in place agile funding models that explicitly tie new releases of funding to quantifiable business value delivered from the transformation. A new cloud initiative should have a specific goal, both as it relates to return on investment and value delivered (for example, patient/member experience).

Jointly sponsor cloud program with business leadership, institute a cloud operating model: Enterprises achieving success in cloud technologies are moving away from a traditional IT-led operating model to a business-technology operating model. The magic ingredients of this model are definitive ownership and executive sponsorship for cloud-based systems from business leaders, balanced representation from both business

and IT on cloud teams, and an integrated technology model that centers on products and platforms.

Such a model includes four core components: DevOps or site reliability engineering, productized infrastructure services, outcome-driven governance, and engineering-centric capabilities. In our experience, organizations that have brought these together into a single operating model have been able to simultaneously improve resiliency, labor productivity, and time to market by 20 percent or more.

Build the right talent and adopt dynamic funding models: The cloud requires specialized and sometimes hard-to-find technical talent-full-stack developers, data engineers, cloud-security engineers, identity and access-management specialists, cloud engineers, and site-reliability engineers. It also involves new roles-for instance a business translator can help to achieve lockstep alignment between IT and business, starting with identifying the most attractive pools of value, establishing the link between IT-enabler projects and business value realization projects, and ensuring ongoing alignment between the two types of projects as the transformation evolves. Apart from ensuring ongoing alignment between the two types of projects, the business translator will work with both business and IT to prioritize the first wave of initiatives that a cloud transformation should drive while factoring in organizational complexity, market evolution, and competitor dynamics.

Get the right construct on partnerships:

Several organizations are opting for external partners to embark on complex cloud transformations, but only a few are succeeding. Successful models have been those where the partners are bringing the right strategic lens to evaluate different transformation approaches and ensure clients are not falling into common value traps such as over commitment to cloud spend, not building the foundational capabilities to run cloud, and sub-optimal focus on value levers. Cloud transformation deals that look more like

traditional outsourcing deals versus true transformations and strategic partnerships, have run into challenges. A hallmark of an effective partnership construct is where partners help clients build a comprehensive cloud business case with all potential value levers captured and estimated to best-inclass benchmarks, and retain more control in-house through balanced support for seamless migration and internal capability building as the program scales.

How to embark on a value-generating cloud transformation journey

We have previously discussed that in digital health ecosystems, rather than chasing every shiny object on the horizon, healthcare companies should adopt a focused, pragmatic, realistic approach that balances feasibility and immediate value. Value-focused and value-generating cloud transformations in payer and provider organizations are ambitious endeavors, heavily leaning on the full engagement of the entire organization. Although the implementation of select use cases or pilots can sometimes be done in months, three to five years is a common timeline for executing a holistic transformation and achieving the full ROI (depending on the scope and company size). Three workstreams are critical to making such transformations successful (Exhibit 2).

Conclusion

Cloud adoption is becoming increasingly vital to expanding the role of IT operations, data security, and improving overall patient experience. The COVID-19 pandemic, and economic downturn, have only accelerated these efforts. As more healthcare organizations begin to embrace cloud, it is essential to bear in mind that cloud transformations on their own do not necessarily create gamechanging value. To do so, they should focus on enabling and accelerating the enterprise strategic agenda. They should also be driven jointly by IT and the business, and include adoption of a cloud-operating model.

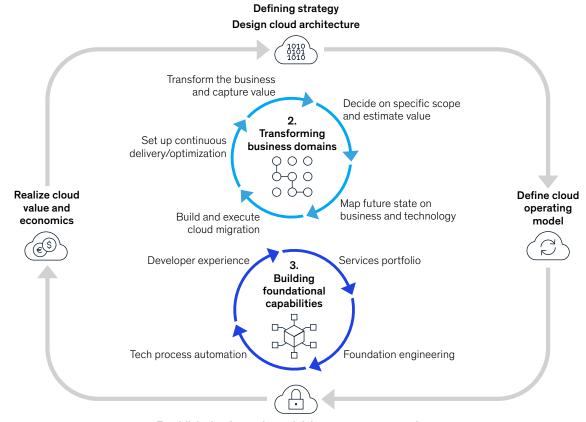
Exhibit 2

Detailed view of three streams of work in a cloud transformation

The three streams are mutually reenforcing; however, emphasis across the three will vary depending on the organization's cloud maturity, other contexts, and preferences. All of these streams are iterative and work in parallel.

1.

- 1. Defining strategy: Enables clear understanding of holistic target, value expectations, and creates shared conviction; establishes transparency on progress and controlling mechanism
- 2. Transforming business domains: Execute actual cloud migration (domain by domain or "app by app") to deliver business value in an ongoing way
- 3. Building foundational capabilities: Require technologies and processes that enable safe and secure operation on the cloud (value over time)



Establish cloud security and risk-management practices

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¹Earnings before interest, taxes, depreciation, and amortization.

² Stefanie Steinhauser, "COVID-19 as a driver for digital transformation in healthcare," *Digitalization in Healthcare: Implementing Innovation and Artificial Intelligence*, March 2021, pp. 93–102.