

IBM Institute for Business Value

Cloud for healthcare

Improving data access, streamlining business processes and reducing costs



Overview

The global healthcare industry is undergoing a transformation. Industry convergence, changing customer expectations, an aging population, and complex security and regulatory requirements create pressure on the industry, while new technologies help drive progress. Cloud computing offers a new path for sustainable, efficient, flexible growth, but security concerns hinder adoption. Healthcare leaders have shared with us their top reasons to adopt cloud computing: reduced costs, improved efficiency and increased customer demand.

Using a combination of cloud-delivered services, companies accelerate time-to-market and enhancements that differentiate the customer experience. Cloud can drive significant value creation and competitive advantage. So how can the healthcare industry address security concerns and realize the benefits of the cloud?

Our experience with cloud computing underscores its power to fundamentally shift competitive landscapes by providing a new platform for creating and delivering business value.¹ To take advantage of cloud's potential to transform internal operations, customer relationships and industry value chains, organizations across industries must determine how best to employ cloud-enabled business models to drive sustained competitive advantage.

Global forces are changing the face of healthcare. Patients today expect quality care, delivered anytime, anywhere. The population is aging, and chronic disease incidence is rising. Regulation and compliance requirements are tightening, and skilled workers are in short supply. Meanwhile, new technologies are faster and more scalable, and foster collaboration and analytics-based decision-making. What's more, market forces driving industry convergence are challenging the model for how IT is financed and delivered.

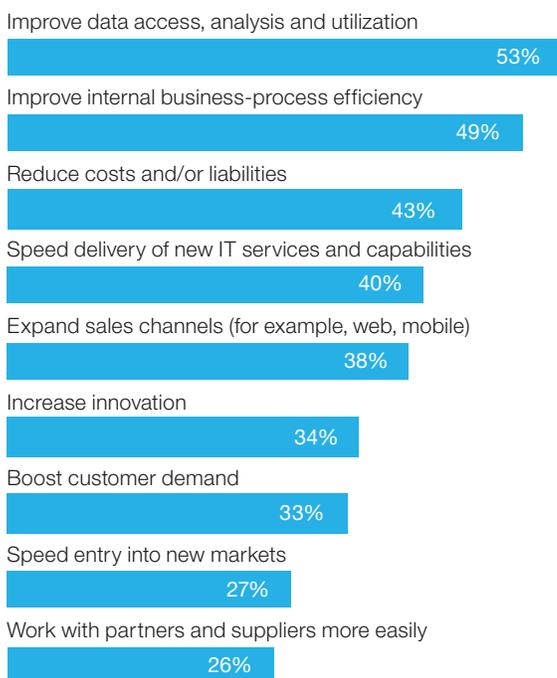
Cloud plays a fundamental role in helping the healthcare industry adapt. With cloud, organizations can become more collaborative, data driven, and patient- and family-centered. They can also drive rapid innovation of products and services, and improved processes. However, cloud adoption has been slow due to security and regulatory concerns. Cloud providers must ensure the necessary security is in place before the industry can fully embrace the cloud's benefits.

Cloud is transforming the business of healthcare

For the healthcare industry, cloud computing offers the potential to redefine customer relationships, transform operations, improve governance and transparency, and expand business agility and capability.



Figure 1
Healthcare executives report cloud improvements in data access and business-process efficiency



Source: "Mapping the cloud maturity curve" by EIU, March 2015.
Question: "What business benefits has your company realized as a result of using cloud technologies?" n=116

Leading healthcare organizations leverage cloud for:

- *Operational innovation* – Simpler and faster processes drive internal efficiency; reduced complexity enables better governance and expanded access to more and broader data to manage risk; and IT capacity is better aligned to business volumes.
- *Revenue model innovation* – Customer relationships, data and other assets are monetized more readily; time-to-market is enhanced; and relevant partner services are incorporated more easily.
- *Business model innovation* – Third-party services extend into the healthcare ecosystem; open collaboration and sharing are expanded; new types of business can be pursued; and innovation is introduced systematically.

As part of the "Mapping the cloud maturity curve" survey by the Economist Intelligence Unit (EIU) in March 2015, 116 healthcare executives were asked to identify their organizations' *top business drivers* behind cloud adoption. The top-three drivers cited were to reduce costs and/or liabilities (cited by 40 percent), improve internal business-process efficiency (37 percent) and boost customer demand (35 percent).

Healthcare organizations have realized significant benefits as a result of cloud adoption during the last two years. Fifty-three percent of the same industry executives said cloud has improved data access, analysis and utilization, while 49 percent indicated increased internal business-process efficiency, followed by 43 percent with reduced costs and/or liabilities (see Figure 1).

As cloud adoption by healthcare organizations matures, other benefits will also accrue. Business users will be able to design and prototype applications quickly. Organizations will benefit from new user-driven, mobile and cloud-centric information technology. Cloud will support transformation of enterprise IT functions, roles and responsibilities. And business managers will increasingly use cloud for application development to enhance agility.

Along with benefits for the enterprise, cloud also brings the potential for increased customer benefits. Cloud can facilitate new and expanded channels, as well as improve access to client data, allowing for better tailored products and services. By enabling more integrated, compelling customer experiences, cloud helps strengthen customer loyalty and market advantage for first movers.

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Access the full “Mapping the cloud maturity curve,” study here: ibm.com/cloudmaturity

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Charting the path for cloud adoption

To succeed with cloud, healthcare organizations have to assess its impact on the operating model and determine what actions are required for more effective cloud adoption.

- *Source and manage partnerships and alliances efficiently.* Automate procurement and sourcing functions. Define service-level agreements to secure customer data in a shared environment.
 - *Proactively redesign business architecture and processes.* Integrate legacy processes into new cloud-enabled, dynamic processes. Establish available and reliable cloud-based platforms.
 - *Change organizational design and governance.* Prepare to mitigate data privacy and compliance risks with strong risk management systems.
 - *Evaluate existing performance management.* Develop strategy and metrics that address new levels of reporting complexity. Build performance metrics into contracts for cloud-based services.
 - *Develop critical new cloud capabilities.* Foster skills in customer and service orientation; vendor and relationship management; and virtualization and network technologies. Build deeper data analytic and operational capabilities.
 - *Increase adoption of emerging technologies.* Update IT strategy to support new business strategy and cloud enablement. Adjust budgets to cover costs of legacy systems and new network bandwidth.
 - *Reassess location strategies for optimal cloud adoption, and to enhance the customer experience.* Decommission or consolidate technology assets.
 - *Promote organizational culture changes.* Educate employees about organizational changes, addressing resistance by IT and other functions.
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How can IBM help?

IBM has a unique position in the marketplace with consulting services and enterprise-grade cloud offerings. We are ideally positioned to engage clients in conversations to identify cloud adoption entry points that move beyond cost cutting to transforming business models through cloud capabilities that include:

- Business and technology strategy consulting services that help clients leverage cloud to develop executable strategies and transform their businesses, operations and organizations by delivering business value through technology.
- The next generation, enterprise cloud service delivery platform, IBM Cloud solutions offer clients unprecedented service level control. This common IBM architecture for private, public and hybrid clouds is based on IBM hardware, software, services and best practices.
- A robust set of IBM Cloud services: computing, storage, backup, SAP, security and unified communications.
- Consulting, design, implementation and infrastructure component management services that create an IT environment dynamic enough to effectively support cloud computing deployment.



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Reference

- 1 Berman, Dr. Saul, Lynn Kesterson-Townes, Dr. Rohini Srivathsa and Anthony Marshall. “The power of cloud: Driving business model innovation.” IBM Institute for Business Value. January 2013. <http://www-935.ibm.com/services/us/gbs/thoughtleadership/ibv-power-of-cloud.html>



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