



## THE NEXT WAVE of Cloud Migration in Healthcare

**A**cross all industries, investments in cloud computing, storage and infrastructure have grown at an exponential rate and are predicted to continue growing at a rate of 17 percent annually over the next three years to about \$278 billion spent by 2021. The healthcare cloud footprint is growing at an even faster rate of 22 percent as healthcare providers develop an increased trust in public and hybrid cloud infrastructure and security and see the benefits of streamlined data management.

A recent HIMSS Media survey of IT decision-makers at U.S. hospitals revealed that hospitals continue to adopt the cloud at a rapid pace and that concerns around cost, data management and the desire for modern IT infrastructure are driving adoption.<sup>1</sup> Previously, private cloud was the cloud of choice for many healthcare organizations, whether managed internally or by a third party and hosted internally or externally. The recent survey highlights a shift in organizations moving to a public cloud – a cloud infrastructure open for use by the general public that is owned, managed and operated by a business, academic, or government organization or a combination – or a hybrid cloud, a mix of public or private.

Produced in partnership with

**HIMSS** Media



*“Healthcare organizations have been watching the evolution of the public and hybrid cloud industry very closely.”*

Mike Leonard | Senior Director of Product Management for Healthcare | Commvault

## **A tipping point for healthcare data in the public cloud**

The HIMSS Media survey results also pointed to the overall healthcare industry’s trust in public cloud computing reaching a tipping point, with 75 percent of respondents indicating that their organizations are reducing their data center footprint. These hospitals are not all planning to move their entire data center to the cloud, but many are taking steps to invest in cloud and other scale-out architecture to allow for the scalability and agility today’s businesses demand.

“I think healthcare organizations have been watching the evolution of the public and hybrid cloud industry very closely,” said Mike Leonard, Senior Director of Product Management for Healthcare at Commvault, an enterprise data protection company that protects and manages data for thousands of healthcare organizations. “They are seeing how the vendors have taken steps to knock down some of the key concerns for healthcare organizations, and this has made the cloud more attractive.”

## **Moving and managing data within a multi-cloud strategy**

Improving data management and storage was a significant motivator for survey respondents who are considering the cloud. Fifty-three percent of respondents noted that their mission-critical workloads are in the cloud. Respondents’ intent to migrate their electronic health record (EHR) to the cloud increased by 40 percent – that rate was 25 percent last year and now sits at 47 percent of hospitals.

To store and move this large amount of sensitive data, organizations must first investigate infrastructure requirements from various vendors, how each vendor runs its applications remotely, and each vendor’s track record – including other organizations’ experience with this vendor’s application and data storage, according to Leonard.

More than half of the respondents said they are using a multi-cloud strategy, defined as using two or more public cloud vendors. Some organizations may use one cloud vendor for backup, a second for testing and development, and perhaps a third for disaster recovery, said Janet King, Senior Director of Market Insights for HIMSS Media. “The number of vendors that providers are adopting is growing, which is obviously further increasing the complexity of managing those workloads in those multi-cloud environments,” she said. A multi-cloud strategy has several benefits, including avoiding a single point of failure, facilitating data sharing and analytics, providing greater flexibility to adapt to changing business needs, and allowing organizations to choose the application that best fits their needs from each vendor.

*“We can help organizations not only move data offsite, but also help them move applications offsite or between clouds.”*

Mike Leonard

Commvault’s customers use cloud solutions from a variety of vendors, according to Leonard. In these scenarios, he pointed out, providers must review interoperability before signing on with a particular vendor. “Interoperability becomes important because you may be trying to create a connection between different applications hosted in different cloud vendors,” he said. “It’s not just the customer’s infrastructure and ability to move data back and forth, but also how to link applications that are hosted with different cloud vendors.”

Commvault works with all the major cloud providers and can create a layer across multiple clouds to help organizations manage and move data in and out of any other cloud vendors as well as move workloads out to the cloud. This “layer” is Commvault’s data management platform, which can operate across data centers, across data that is on premise to data that is the cloud, and between clouds. “It gives a single view of all the data that’s under management by the platform,” Leonard said. “So we can help organizations not only move data offsite, but also help them move applications offsite or between clouds. We can help them manage the transition. We have extensive experience in helping organizations transition to the cloud.”

### **Security: Trust in the cloud is growing**

Along with providing a virtual layer to help manage different workloads on different clouds, Commvault works with its customers to back up, recover, protect and manage their data from its data management platform. Protecting the security of sensitive data is understandably top of mind for hospital executives looking to make the switch to the cloud.

According to the survey, 56 percent of respondents said they are comfortable storing protected health information (PHI) in the cloud. Providers’ perspective around storing this sensitive information in the cloud is changing because of an increase in trust in cloud vendors, as well as the awareness of the advantages around using a cloud storage option, such as scalability, improved agility, modernization and cost reduction.

While hospitals are becoming more comfortable using the cloud, there is still much work to be done around data security – specifically medical images. Respondents were asked: “How are you protecting your organization’s medical images that are managed by PACS?” Sixty-one percent responded that they archive the images, 42 percent said they back up the images, and 36 percent replicate the images. The majority of these activities happen on-premises. Leonard said these numbers point to a huge area of risk and exposure for this critical patient data.

*“The cloud is definitely becoming more of a viable option for many types of workloads. And public cloud adoption is accelerating now because vendors have knocked down many of those barriers that organizations were concerned about.”*

Mike Leonard

“The numbers indicate that the majority of organizations aren’t backing up medical imaging data. That’s a big risk. Adding to the risk is the fact that most of that data is not encrypted, making it vulnerable in the event of a malware attack or data breach,” he said. “Medical imaging today makes up a large portion of a healthcare organization’s overall data. So, it’s a big risk and it has serious ramifications.”

### **A simple, yet powerful solution**

There are several operational and strategic considerations driving healthcare providers to store data in the cloud, such as reduced costs and improved data management, but another significant motivation is the desire to become more agile and flexible as an organization. The cloud provides a powerful, yet simple approach to data management that streamlines an organization’s complex data needs through modern IT infrastructure. Adopting a cloud approach signals that the organization values staying abreast of modern technology that improves cost efficiency, reduces security risk, improves patient outcomes and puts it in an improved position to leverage its data for initiatives like precision medicine.

As more healthcare providers see other organizations using the cloud successfully for their complex storage needs, the level of trust among providers will only increase, said Leonard. “The cloud is definitely becoming more of a viable option for many types of workloads. And public cloud adoption is accelerating now because vendors have knocked down many of those barriers that organizations were concerned about,” Leonard said. “I think we’ll see that continue. Those concerns from the past, they’ve been addressed.”

<sup>1</sup> HIMSS Media 2018 Cloud Computing Survey, HIMSS Media. December 2018



#### **About Commvault:**

Commvault is the recognized leader in data backup and recovery. Commvault’s converged data management solution redefines what backup means for the progressive enterprise through solutions that protect, manage and use its most critical asset — its data. More than 2,000 healthcare organizations worldwide trust Commvault to protect and manage critical data, no matter where it resides. Learn more at [www.commvault.com/healthcare](http://www.commvault.com/healthcare).