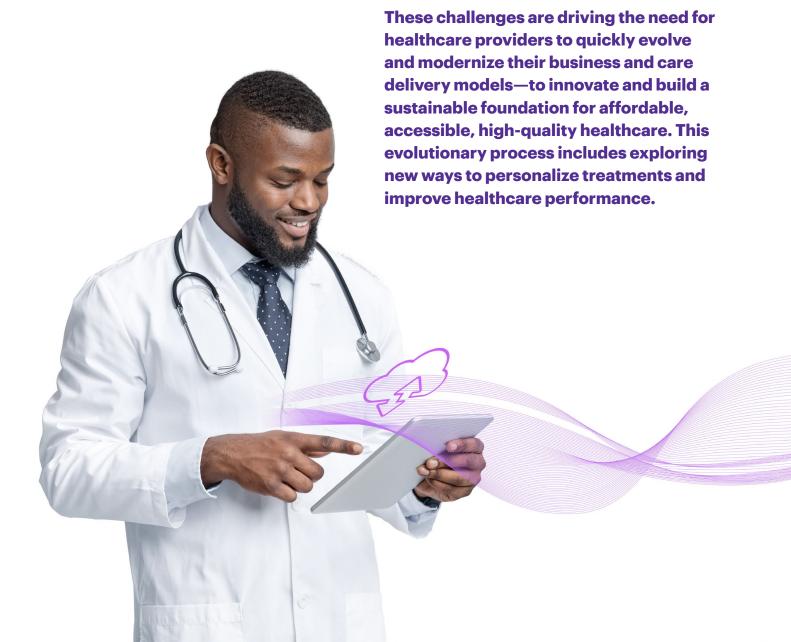






# CLOUD SOLUTIONS FOR HEALTHCARE ARE ON THE RISE

The healthcare system is experiencing increasing pressure from many directions. An aging population and rising rates of chronic diseases are straining resources. Lower reimbursement rates and an industry shift to value-based payments have created additional cost pressures—with healthcare premiums rising by an estimated 54 percent over the last 10 years.<sup>1</sup>



# Many healthcare leaders are taking advantage of new technologies, using cloud software solutions, and harnessing insights from data at scale to accelerate innovation and digital transformation across the business. IT organizations have realized significant savings from investments in cloud solutions, with average savings of roughly 45 percent on infrastructure and storage costs.<sup>2</sup> And now, clinical line-of-business leaders are also finding numerous new healthcare cloud products to assist with the growing data needs associated with patient care.

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Healthcare providers are increasingly finding that advancing medical outcomes requires processing large amounts of healthcare data, with governed access to that data for research as well as clinical application. These organizations believe the role of the cloud is pivotal to actualizing this vision—and companies embracing this vision are leading the digital revolution in healthcare.

With the growth of cloud, more software providers—either born in or moving to the cloud—are offering solutions that help healthcare companies accelerate innovation. Cloud solutions help reduce cost pressures by driving operational efficiency, generating data-driven insights, and enhancing patient experiences.

Cloud solutions focused on improving operational efficiency can help healthcare providers automate or streamline administrative tasks and optimize resource management. For example, cloud-based analytics tools can predict no-show likelihoods and manage bed allocation. Cloud services also assist providers with managing and interpreting large data sets to obtain insights. Managing and interpreting large data sets applies to services such as medical imaging, where providers use cloud storage to improve catalog organization, and AI and ML to accelerate diagnosis and deliver better patient outcomes.



A growing number of healthcare technology companies are building and running their healthcare applications on Amazon Web Services (AWS), and they are realizing significant benefits. By running their applications on AWS, they are able to collect, store, and process data from a diverse and global set of medical devices, starting with imaging. Healthcare providers can use these cloud applications to share data and collaborate more easily.

Other cloud solutions enable interoperability and telehealth solutions that lower the costs associated with in-person appointments, while delivering high-quality care. Providers can further personalize treatments by using data and monitoring tools that help assess treatment effectiveness.

The use of cloud software will certainly continue to grow, but healthcare organizations often struggle to find the right combination of cloud solutions to meet their unique requirements.



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### OPPORTUNITIES EXIST TO SIMPLIFY THE MIGRATION TO CLOUD

Research shows that a growing number of organizations are investing in the cloud. By 2021, 94 percent of all workloads and compute instances will be processed in the cloud, with 73 percent of cloud workloads being processed in public clouds.<sup>3</sup> However, the shift to cloud is a complex undertaking. Today, only 30 percent of healthcare providers have developed a comprehensive cloud migration strategy.<sup>4</sup>

Existing contracts for on-premises software—including multi-year contracts and perpetual licenses—can slow the pace of cloud adoption. In the healthcare industry, IT teams might lack the technical skills needed to achieve full adoption of cloud solutions.

Protecting patient data is also a concern. Healthcare leaders rank cyber-security as one of their highest priorities.<sup>4</sup> Cloud software solutions must not only address the complexity of the business, but also enable compliance with regulations (e.g., HIPAA).

What healthcare organizations need is an easy way to find, select, and deploy secure software solutions, and cloud providers are looking for ways to simplify and accelerate the buying process.





A cloud marketplace is a digital catalog hosted by a cloud service provider, offering third-party software applications and services. These apps and services are built on, integrated with, or complement the cloud provider's own offerings, and the software can be combined with products from other third-party providers to build more complex solutions. More than just a transaction platform, a cloud market-place seamlessly enables the creation of a complete digital ecosystem.

Cloud marketplaces can connect customers with services that extend their security posture, enhance monitoring, and accelerate data-driven insights, among other benefits.

In addition, governance controls allow buyers to review, grant, and restrict access to cloud services within their organizations—helping to minimize security risks. Organizations can also increase transparency by using capabilities that enable them to monitor cloud spending and to track consumption, which assist in budgeting efforts and inform future planning and purchases.

Complementary services and platforms designed for machine learning (ML), artificial intelligence (Al), and other advanced technologies accelerate healthcare organizations' time to value.

By design, cloud marketplaces provide buyers with for a single repository of IT infrastructure, healthcare-specific cloud solutions, and data sets. These solutions and data products support business priorities—such as telehealth and interoperability—that drive growth and support positive business outcomes.

A cloud marketplace, together with Accenture, provides the ability to connect multiple healthcare-specific software solutions to build more powerful ecosystems—enabling healthcare organizations to securely manage the growing amount of patient information, simplify the use of patient information across networks, and enable personalized digital services.



With cloud marketplaces, buyers can compare features and prices of solutions from multiple independent software vendors (and user-submitted reviews of these solutions) all in one place. And in the case of AWS Marketplace, 35 percent of the solutions in the software catalog are accompanied by reviews written by verified customers. This enablement of easy comparison shopping, cloud marketplaces streamline the time-intensive process of selecting the right-fit software to purchase.

Simplifying procurement and implementation, cloud marketplaces provide low-touch, buyer-driven transactions, with streamlined contracting, billing options, and greater transparency to costs. In addition, marketplaces streamline the integration of cloud software and relevant data solutions within the cloud provider's environment.

## ACCENTURE AND AWS MARKETPLACE HELP HEALTHCARE COMPANIES TRANSFORM AND INNOVATE

AWS Marketplace delivers a curated digital software catalog with thousands of software listings from independent software vendors. This proven platform simplifies the discovery, procurement, and provisioning of third-party software, models, and data. Healthcare organizations can try solutions in low-risk environments, and then quickly implement the business solutions that best suit their unique needs.

Accenture adds to the value of AWS Marketplace-based solutions by providing deep industry experience, complemented by a best-inclass ecosystem of partners. With Accenture overseeing all solution development operations, healthcare customers benefit from:

- End-to-end cloud services delivered by industry experts
- Accelerated delivery of cloud solutions at speed and scale
- New and better ways to leverage cloud, from migration to cloud management to the evolution of the cloud estate—enabling you to achieve the full promise of cloud elasticity and innovation



### Why should healthcare providers work with Accenture and AWS Marketplace?



#### 1 Speed

Organizations can implement AWS Marketplace solutions quickly, with fast deployment of pre-configured software and flexible pay-as-you-go pricing. Trusted Accenture deployment practices streamline multi-tool integration and content creation workflows. Accenture knows what technologies need to be included to reach the desired end-product—rather than relying on trial and error, only to find out at the end of the development cycle that a proof of concept didn't work. All Accenture and AWS Marketplace solutions are tested and verified to integrate with Accenture's ecosystem of partner solutions and technologies, so healthcare customers save significant testing time and get to market faster.

Accenture and AWS Marketplace also accelerate innovation, while balancing the need for visibility and governance. Companies can utilize multiple software solutions, machine learning models, and industry-specific data sets in the same environment. Easy access to this centralized information enables healthcare organizations to quickly innovate—from both the operational and clinical care perspectives—ultimately improving the value of care.



#### 2 Governance and Control

AWS Service Catalog allows buyers to create and manage a customized catalog of select IT services. Accenture can assist healthcare organizations in creating a Private Marketplace within AWS Marketplace to provide employees with streamlined access to a curated set of authorized third-party solutions, including both cloud software and data sets. Across all services, users can manage multiple environments from a centralized location using the AWS Control Tower. Finally, Procurement System Integration allows healthcare providers to integrate AWS Marketplace with procurement systems through a standard open communication protocol (Commerce XML, or cXML), helping to centralize governance for software provisioning. These features enable healthcare organizations to manage their cloud solutions at scale.



#### 3 Security

Accenture and AWS Marketplace offer comprehensive security solutions—including cyber risk management, disaster recovery, and more—helping to remove the barriers to cloud migration. AWS Marketplace's curated catalog contains verified third-party data sets and solutions that meet Accenture and AWS's security and compliance standards. Furthermore, Accenture and AWS offer HIPAA-eligible services, and independent software vendors can offer tailored HIPAA-compliant solutions on AWS Marketplace.



#### Ease of Leveraging Third-Party Data

AWS Data Exchange for Healthcare makes it easy to find, subscribe to, and use third-party data sets in the cloud. The hundreds of healthcare data sets are ethically sourced and include no personally identifiable information (PII) or personal health information (PHI). These data sets span the domains of clinical, claims, patient-reported outcomes, imaging, and molecular data. Healthcare customers can also access de-identified data used in characterizing social determinants of health (e.g., financial, lifestyle, nutrition, and activity) in populations. Lastly, the AWS Data Exchange API loads data directly into the cloud environment—minimizing the time and effort needed to generate data-driven insights.





AWS Marketplace makes cloud software and data sets more accessible to healthcare buyers, which can collectively create solutions that address healthcare-specific use cases. With AWS Marketplace, customers are able to buy software and data products from multiple vendors and combine them to create a complete cloud ecosystem on a single AWS platform—which delivers performance tailored to the organization's needs.

Not just for the tech-savvy, Accenture and AWS Marketplace actively partner with organizations outside of high-tech—including healthcare companies that might not be ready to launch a full cloud ecosystem, or organizations that have tried to launch a solution on their own (i.e., DIY), but found the process too complex.

For example, when Anthem wanted to meet evolving customer/patient expectations for a seamless user experience, they knew the cloud was the answer, but they needed help deploying the right technology to reach their goals. Rather than continue its business transformation alone, Anthem turned to Accenture for assistance.

Accenture helped Anthem formulate a strategy and roadmap that will enable the healthcare provider to achieve competitive advantage benefits—while also delivering better patient care—through application modernization and AWS-based cloud infrastructure.

With our Accenture-designed environment, we are using data to better serve every consumer as a population of one—considering their medical, behavioral, social, and financial needs—to provide support that best serves them. Technology is helping us close gaps in care and better support the populations we serve."

- Mamadou Bah, Sr. Director, Anthem, Inc.



#### **ACCENTURE AND** AWS MARKETPLACE— **BETTER TOGETHER FOR YOU**

Backed by the integration experts at Accenture, AWS Marketplace proactively addresses the needs of today's healthcare organizations improving business outcomes and helping them enhance the care they provide.

A growing number of healthcare organizations rely on Accenture to design AWS Marketplace-based solutions for simplified IT solutions, data sets, innovative healthcare-specific cloud software, and assistance in designing and building complete digital ecosystems tailored to the healthcare industry.

Visit **AWS Marketplace** to learn more about Accenture and AWS Marketplace's solutions and data sets for the healthcare industry. You can also explore use cases on the Healthcare & Life Sciences (HCLS) AWS Marketplace Solutions page.

#### **REFERENCES**

- <sup>1</sup> Kaiser Family Foundation, 2019 Employer Health Benefits Survey.
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- <sup>4</sup> HIMSS. 2018 HIMSS U.S. Leadership Workforce Survey Final Report.

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