



White Paper

# Cloud for Healthcare





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Businesses in numerous industries have made the move to the cloud, while others still hold onto security concerns. These concerns are especially prevalent in the healthcare industry, due to its sensitive, private patient data. In the past, the industry has let innovation pass it by due to these worries, but the cloud has now matured enough. As cloud security strengthens, healthcare can finally take advantage of the efficiency and cost savings of the cloud.

The cloud computing market in healthcare is expected to grow to reach \$9.48 billion by 2020. (MarketsandMarkets) A senior healthcare research analyst at Frost & Sullivan stated “Government initiatives to optimize healthcare information exchanges have underlined the importance of synchronized real-time data management and personalized healthcare delivery, lending impetus to the healthcare cloud market.”

The benefits of the cloud for the

healthcare industry are clear. It has grown so much in past years that privacy and compliance concerns are no longer sufficient excuses. Healthcare organizations can leverage the cloud to boost productivity and efficiency, and free up time and money that can instead be focused on improving medical care on both the provider and patient sides.

# The State of Healthcare and Technology

The 2016 annual meeting of the Health Information and Management Systems Society resulted in some key points about healthcare and technology. Today, technology is playing a key role in restructuring how providers relate to and communicate with their patients. The primary concern of healthcare technology used to be implementing electronic health record systems, but today, it's about more strategic concerns like revenue-cycle management, data analysis, and population health management. Healthcare providers are paying more atten-

tion to the entire patient experience, from finding a doctor to paying their bill.

An interesting finding from the meeting was that attitudes towards healthcare technology were very age-based. When it comes to technology engagement, patients want different things depending on their stage in life. The people who are most tech savvy aren't necessarily the largest users of healthcare. Those patients tend to be both older and poorer. These older generations want to take advantage of

technology to make their healthcare chores easier. For example, technology solutions that help them remember to take their pills or schedule an appointment.

Millennials, on the other hand, are very research focused. They find providers using online reviews, take advantage of telehealth services and show up for appointments armed with information about their condition and possible treatments. Additionally, this demographic is more price-sensitive and tend to put off care because they can't afford to pay for it.

## The Benefits of Cloud for Healthcare

### For Healthcare Professionals

A workday in this industry is hectic, but the cloud can streamline business operations through accessibility and cloud-based clinical applications.

The cloud helps make the day-to-day tasks of running a healthcare organization easier. The industry is complicated enough without all the paperwork and processing. Tasks like submitting prescriptions and refills, filling out forms or

simply pulling up patient records can be completed much quicker and electronically.

Data and applications can be securely accessed from any device, in any location when they are moved to the cloud. This means that doctors don't need to spend hours in the office after the work day is over. They can continue working, if necessary, from the comfort of their own home

through authorized Internet access to the data and applications.

The necessary data is in reach at all times, rather than stuck in a stack of paper or solely accessible through a singular computer at the office. This allows healthcare professionals to manage their practice in new, efficient ways and better connect with their patients and colleagues.

# For Patients

The cloud allows for easier collaboration between other healthcare professionals and organizations. Patient data, like test results, can be easily shared with a different healthcare provider that might need it. This not only saves time on the business side, but also on the patient side. For example,

rather than getting an X-ray done twice, the patient and secondary healthcare organization can simply refer to the secure digital files provided by the original professional.

Cloud savings will trickle down to patients, who won't have to

endure paying to have the same test done twice when they need to see different doctors or lose the paper copy. This has an immediate impact on the patient experience, and is a step in the right direction.

## Cloud Security and Compliance

And now for the one thing that has stood in between healthcare providers and the cloud – security. In recent years, cloud security has drastically improved. In fact, 64% of enterprises agreed that cloud infrastructure is more secure than legacy systems (Clutch), and the majority of organizations plan on transferring some form of sensitive data to the cloud in the next few years (Thales e-Security). Cloud providers today are offering greater security than many organizations can provide themselves. After all, what's the point of the other cloud benefits if the solution isn't reliable? With traditional computing, security breaches occur due to the simplest occurrences, like loss of a laptop or

data being discovered in emails. Healthcare organizations, large and small, can experience government-grade security through the cloud that will prevent these situations and more. Better yet, the most reliable cloud vendors meet compliance policies, including HIPAA.

The quality of security will largely depend on the provider, but a leading provider like RapidScale offers quality layers of physical and network security. Not only will data and applications be backed up in the cloud, where they cannot be physically harmed, but we also own and manage redundant and geographically diverse Tier 3 Class 1 data centers. These fa-

cilities hold the infrastructure that powers the cloud solution. They are equipped with measures including encryption, firewalls, biometric scanners, key card protocols and more. If one facility fails, another will pick up where it left off, leaving the organization with uninterrupted cloud service. It's important to work with a provider that meets and exceeds the majority of industry standards and regulations. Cloud computing will eliminate the risks of hosting on-site infrastructure and storing excessive amounts of paper records. Despite what some still believe, the cloud can help healthcare improve security.

# Cost Savings and Easy Scaling

For the healthcare provider, the savings are huge. The organizations can stop storing enormous, inefficient and inflexible equipment on-site. Not only is this equipment extremely expensive, but it also takes time to maintain – and in the medical industry, time can make all the difference.

The costs and responsibilities of purchasing, housing, installing and managing the infrastructure needed to power computing and security are transferred to the cloud provider, moving the organization from a Capex to Opex model. Additionally, the cost of new software is lowered substantially as these healthcare-specific programs can be directly purchased through the cloud, helping practices avoid costs of licensing, installations and upgrades. Instead, the cloud provider offers applications on a subscription basis and implements upgrades as they are available, ensuring that the organization and its users are constantly working with the latest version.

Traditional huge, upfront capital expenditures aren't worth it unless a business truly uses the resources every single day at their full capacity. It can be hard to predict what you will need in the future, and with cloud computing, you don't have to. Businesses pay on an as-needed basis, receiving the resources they need on demand. This operational expense model is extremely scalable, allowing healthcare providers to add or subtract cloud services as necessary. In an industry that constantly collects and builds up data, a flexible and scalable solution like this is perfect. Rather than investing in new equipment and storage space, the organization simply scales the cloud service as needed.

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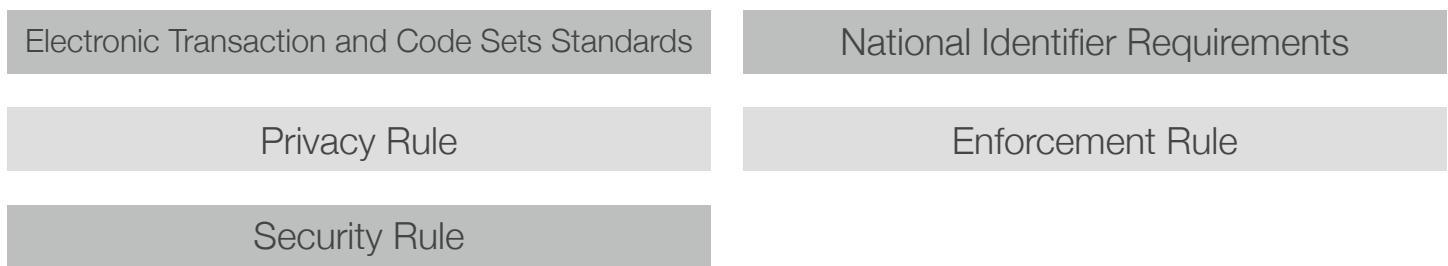
**“It can be hard to predict what you’ll need in the future, and with cloud computing, you don’t have to.”**



# HIPAA and the Cloud

## HIPAA Defined

The Health Insurance Portability and Accountability Act (HIPAA) is intended to improve the efficiency and effectiveness of the health care system. It requires the adoption of national standards for electronic health care transactions and code sets, as well as unique health identifiers for providers, health insurance plans and employers. The law recognizes that electronic technology could erode the privacy of health information and incorporates provisions for guarding the security and privacy of personal health information. It enforces national standards to protect individually identifiable health information (known as the Privacy Rule) and the confidentiality, integrity and availability of electronic protected health information (known as the Security Rule). There are five parts to HIPAA's Administrative Simplification Statute and Rules, including:



## Where does cloud computing factor in?

The HIPAA Omnibus Rule went into effect in March 2013, making some additions to HIPAA. One of the most notable is that business associates of the primary handlers must also be HIPAA compliant and are directly liable for this compliance – and cloud service providers are certainly defined as business associates within these new rules. Therefore, those cloud providers eager to work with healthcare organizations had to make necessary investments in order to ensure their infrastructure and practices were HIPAA-compliant.

For healthcare providers, or other handlers of protected healthcare information, this means that in order to outsource infrastructure and move to the cloud, they have to be more careful in choosing a provider. They must find one that has a HIPAA-compliant cloud offering and can prove that they meet the compliance requirements.

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## How do you know if a provider is HIPAA-ready?

A cloud provider should have a security program that meets the specific policies and procedures required by HIPAA, as well as a successful history working with other healthcare clients. You'll also want to look for:

Access Controls

24x7x365 Data Monitoring

Encrypted Data

Disaster Recovery Plan

Incident Response Process

Around-the-Clock Support

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## About RapidScale

RapidScale, a managed cloud services provider, delivers world-class, secure, and reliable cloud computing solutions to companies of all sizes across the globe. Its state-of-the-art managed CloudDesktop platform and market-leading cloud solutions are the reasons why RapidScale is the provider of choice for leading MSOs, VARs, MSPs, Carriers and Master Agents throughout the United States. RapidScale is not only delivering a service but also innovating advanced solutions and applications for the cloud computing space. RapidScale's innovative solutions include CloudServer, CloudDesktop, CloudOffice, CloudMail, CloudRecovery, CloudApps, and more.

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