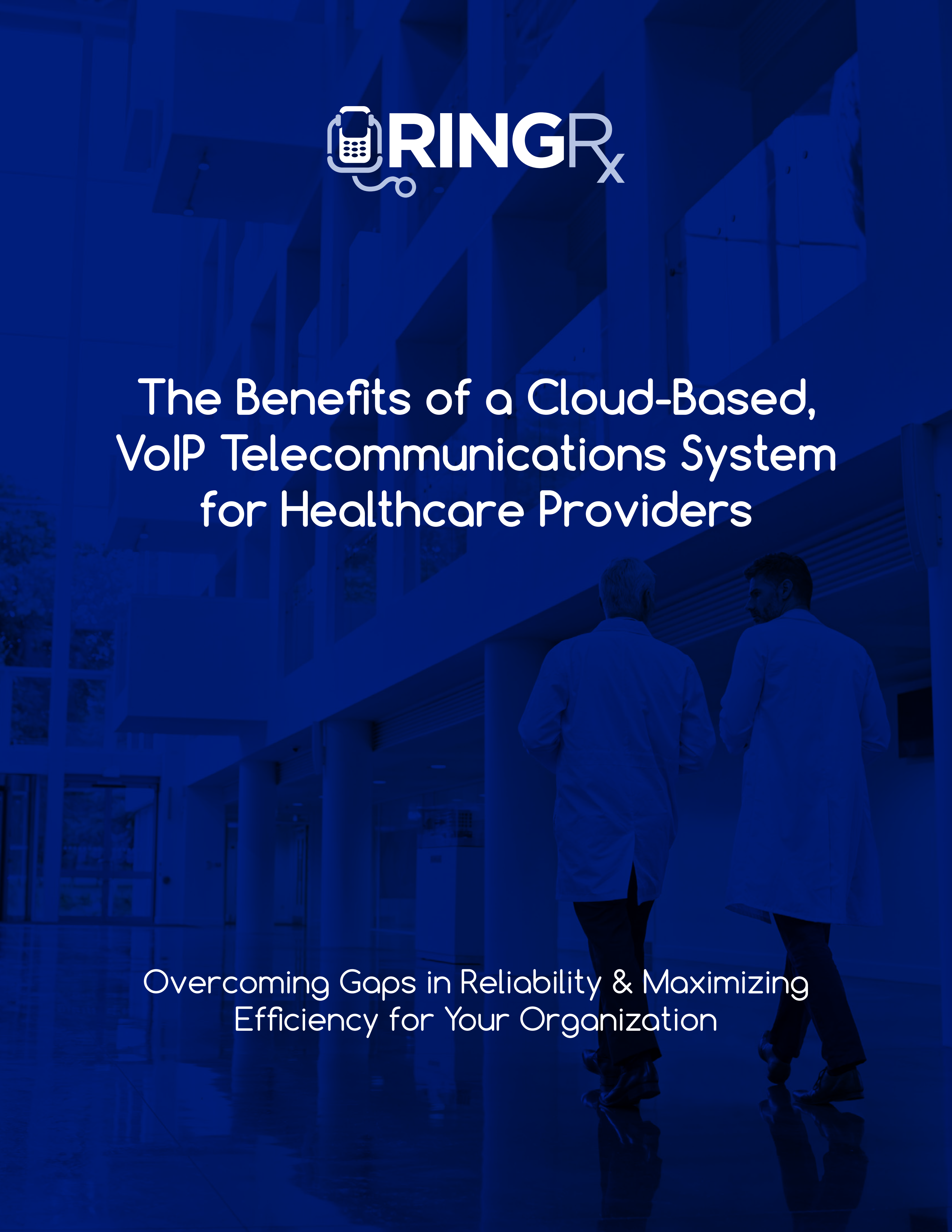
RINGRx

The Benefits of a Cloud-Based, VoIP Telecommunications System for Healthcare Providers



Overcoming Gaps in Reliability & Maximizing Efficiency for Your Organization

Introduction

Communication is the lifeblood of any healthcare facility. Seamless communication is what allows healthcare providers to create the fast-moving and efficient work environments that allow them to deliver expedient care and maintain high levels of patient satisfaction.

This is why it is **essential** for healthcare organizations—from independent physician offices to major hospitals and healthcare systems—to have modern and robust systems in place for both their patient-staff communications and their internal communications between medical staff members. When a healthcare organization uses outdated telecommunications technology, they run into issues such as:

- The inability to quickly respond to patient calls.
- Delays and breakdowns in vital communication between medical staff (which can compromise the quality of care delivered).
- Interruptions to workflow, due to factors such as increased phone system down time.
- Increased financial waste due to unnecessary capital expenditures and reduced productivity of staff.

Despite these vulnerabilities, many healthcare offices, clinics, hospitals, and systems are **still relying on antiquated telecommunication technology that prevents them from working at optimal capacity and efficiency.** Specifically, these outdated systems are traditional, on-premise telephone boxes that not only come with substantial capital investments, but also gaps in reliability in terms of service and performance.

Breaking the Cycle of Subpar Communications Solutions

For many healthcare organizations, these systems have been passed on from one IT administrator to the next—and often they are kept in use not because they are believed to be the best choice for the organization's needs, but rather because they are part of the inherited infrastructure, and it appears to be less work and less risk-averse than to switch phone system providers. In other instances, an IT administrator may be interested in shifting to an improved solution, but they may struggle with the ability to obtain buy-in from leadership within their organizations.

Unfortunately, this form of thinking forces many healthcare organizations to **lag behind the technological curve,** meaning they are not able to streamline their operations and serve their patients to the best of their abilities. **There is actually a better solution: cloud-based telecommunications.** When a healthcare IT administrator chooses a more modern communications system that is based in the cloud (meaning it is web-enabled), they get a solution that allows for **greater business continuity and streamlined efficiency** at a level that could never be achieved with an on-premises, physical system.

This report explains the benefits of using a cloud-based, HIPAA-compliant telecommunications system, and how it puts control back in the hands of the in-house IT administrators and their organizations as a whole. We'll specifically look at how cloud-based communications increases efficiency, scalability, and cost effectiveness for healthcare providers.

What are Cloud-Based Systems and How are They Being Used in Healthcare Today?

A cloud-based telecommunications system makes phone services and other communications services (like faxing) available over the Internet (or “the cloud”). With a cloud-based, voice over Internet Protocol (VoIP) phone system, the user gains on-demand access to these services on a pay-as-you-go model instead of having to invest substantial amounts of money into equipment that must be housed and maintained on-site.

In contrast to on-site telephone boxes, cloud services are web-based and powered through remote servers that are operated and maintained by the service provider themselves, relieving this burden from the healthcare organization.

The use of cloud computing services has become much more commonplace within the healthcare industry, with providers using the cloud for various purposes that are an essential part of their day-to-day operations, including the storage of electronic health records, e-sign patient documents, hosted practice management systems, and more.

According to data from HIMSS Analytics (a subsidiary of the Health Information and Management Systems Society), **nearly two-thirds (65%) of IT leaders from health systems, hospitals, and other large healthcare organizations attest to using the cloud or cloud services within their organizations.** The majority of this use is attributed to clinical application and data hosting, data recovery and backup, and hosting of operational applications.

The Cloud Standards Customer Council (CSCC) has identified the three leading benefits of the cloud within the healthcare industry as being **economic, operational, and functional.** The next section will explore some of these benefits further, specifically in how they apply to cloud-based telecommunications.

The 3 Key Benefits of Cloud-Based Telecommunications Systems for Healthcare

1

Reduced Cost: The Elimination of Hardware Expenditures

With the ability to cut reliance on physical telephone boxes, healthcare providers are able to eliminate hefty upfront costs that typically come with the purchase of such equipment, as well as hardware lifecycle costs (replacing the equipment every five to seven year) and monthly equipment maintenance and configuration costs.

With internal IT costs ballooning, more healthcare IT leaders today are starting to see the value of reducing their capital expenditures and replacing them with pay-as-you-go service models. Furthermore, because everything is web-based in the cloud environment, it's easier to shorten the time in which clinics and other healthcare organizations can get set up with the telecommunication services they need. The purchase and deployment of physical hardware can take months, compared to the weeks or mere days it takes for simple dimensioning and launch of a cloud-based system.

2

Operational Efficiency: Business Continuity Through Uninterrupted Connection

Cloud-based phone systems operate through Internet connections powered by remote servers rather than relying on traditional, on-site equipment that is more susceptible to outages. As a result, healthcare practices, clinics, and centers that use web-based telecommunications systems are much less likely to have "down time" due to unexpected lapses in connectivity.

When a healthcare provider uses an on-premises telephone box and that system goes down, the provider's operations can be seriously impeded, interfering with incoming calls from patients, complicating internal communications between medical personnel, and reducing the overall efficiency of the staff's workflow. And worse, the organization's internal

IT support team is often unable to quickly remedy the situation due to the fact that these traditional systems typically require repair by the third-party vendor that supplies the hardware. As a result, this limits in-house IT professional's ability to deliver fast support, which is essential in today's fast-paced healthcare environment.

In addition to ensuring business continuity, more modern telecommunications systems allow healthcare providers to be more tactical and efficient in how they're communicating with patients and their internal staff. Many cloud-based, VoIP systems come with a wide array of modern features and capabilities that traditional phone boxes simply do not offer. For example, in addition to offering phone services, a cloud-based system may also offer features such as e-faxing, automated appointment reminders through SMS messaging, after-hours call routing, spam-protection technology, remote access to the communications system through a mobile application, and more.

Healthcare organizations should consider using the most up-to-date and efficient telecommunications technology in order to ensure that patients are receiving immediate service and a seamless experience.

3

Improved Functionality: Scalability for Multi-Location Facilities

Another key benefit of cloud-based telecommunications is that it allows for cross-site integration and collaboration. For example, a multi-location facility can operate as one location entity rather than needing a discrete, physical system for each site, which can become both costly and redundant. With a single, web-based system that healthcare IT leaders can use across their entire organization, they have a much more scalable solution that allows them to keep their communications infrastructure streamlined no matter how many facilities they have.

Furthermore, many cloud-based telecommunications systems give healthcare providers the ability to integrate their communications platform with other systems they're already using, such as their electronic medical record (EMR) system, billing system, fax servers, etc., which means they're able to upgrade their telecommunications systems with as little disruption as possible to their existing technological ecosystem.

Thinking Long-Term When Selecting a System

The selection of a telecommunications system requires an extensive evaluation of numerous factors and benefits—not just a look at the base-level telephone services the system can provide in the short term, but a look at the bigger picture of how the system can benefit the organization on a larger scale, from cost savings to increased productivity that improves patient care to the ability to create more seamless alignment for a multi-location operation.

In addition to evaluation from a financial, opeational, and functional perspective, healthcare IT administrators must also ensure their telecommunications system meets another critical requirement—**it must be HIPAA-compliant.**

Selecting a Cloud-Based Phone System That Is HIPAA-Compliant

Under the Health Insurance Portability and Accountability Act (HIPAA), healthcare providers have a responsibility to keep all protected health information (PHI) secure, and that includes patient information that may be shared through voicemail, text messages, faxes, provider notes, or any communication that results in stored data. When healthcare providers do not keep PHI safe and secure, they run the risk of compromising patients' privacy, and they also put their organizations at risk of violating the law, making them vulnerable to expensive government fines and lawsuits.

As a result, when a healthcare provider selects a cloud-based telecommunications system, they need to ensure they are choosing a system that is HIPAA-compliant. While no technology in and of itself will make an organization HIPAA-compliant—as it is up to the healthcare provider to use the technology properly and take the appropriate actions on their part to protect PHI—the VoIP system being used should include all the features and vendor support that are needed to help **facilitate** communications-related compliance within the organization.

Measuring the System Against the 6 Pillars of HIPAA Compliance

To properly protect patient information and keep their organizations abiding by federal law, healthcare providers should choose telecommunications systems and providers that incorporates the following six pillars of HIPAA compliance:

1. Physical security of PHI
2. Encryption
3. Training
4. Product security/ password protection
5. Auditing
6. Business Associate Agreement (BAA)

Below is a breakdown of each pillar...

Physical Security of PHI

Any healthcare provider's phone system should be supported by storage architecture that is built to maintain all PHI data on encrypted hard drives. Servers maintaining this data should be managed in several geographic locations to mitigate against localized failures of one or more server facilities. These data silos should include any sources with PHI (e.g., voicemails, faxes, patient contact information, etc.).

Encryption

When a healthcare provider elects to use a cloud-based, VoIP system for their phone platform, all data and files will be transmitted and stored within the cloud. To properly protect patient data, a healthcare organization needs a system that automatically encrypts this data, whether it's at rest or in flight. The platform should also use aggressive encryption key rotation strategies to maximize safeguards against unauthorized access.

Training

Research shows that 78% of employees demonstrate a lack of preparedness, training and resources to protect the privacy and security of sensitive information like patient data. That's why it's critical for healthcare providers to ensure that all their employees and any third-party vendors they work with who have access to your patient information are properly educated on how to handle this data. This means the organization's phone phone system provider should undergo regular training on the latest healthcare security laws and practices.

Product Security/Password Protection

Any software system that contains PHI must be protected with adequate password security. This includes premise-based solutions, as well as cloud-based solutions. Appropriate password standards, including strong character requirements and length, should be enforced to ensure only those with approved security clearance are able to access services and systems that contain PHI.

Auditing

To keep their phone system HIPAA-compliant, a healthcare provider's network systems and data custody must undergo external audits on an annual basis. This should include auditing of deployment and maintenance practices. Additionally, routine automated audits should be conducted by the phone system provider on an ongoing basis to ensure access is limited to authorized personnel only.

Business Associate Agreement (BAA)

When a healthcare organization works with a vendor that has access to patient information through the business relationship, they're required under HIPAA to enter into a formal business associate agreement (BAA). Through this agreement, the vendor agrees to adhere to certain standards that allow for the full protection of patient information under the law.

Vendors that provide cloud-based, private branch exchange (PBX) phone systems definitely fall under this position. As a result, a healthcare provider's phone system provider should work with the organization to establish a BAA.

When searching for the right telecommunications platform for a healthcare organization, IT administrators need to consider more than just the platform features and services being offered. It is also critical to ensure their platform provider is equipped to assist with their compliance needs. Working with a provider that solely serves healthcare organizations can go a long way in ensuring their system is designed to meet the needs of their industry.

RingRx: A HIPAA-Compliant Communications Solution That Increases Reliability & Efficiency

RingRx is a next-generation, cloud communications platform designed to simplify and improve patient-staff communications for healthcare provider organizations of all sizes, from small, independent practices to multi-location clinics, regional medical centers, hospitals, and healthcare business associates. A completely HIPAA-compliant communications solution, RingRx helps practices improve communications, reduce costs, and minimize errors.

Deploying RingRx in a hospital, multi-location clinic, call center, or other enterprise organization can help improve operations in numerous ways. RingRx was built for a modern healthcare enterprise and is loaded with security and communications features to streamline operations and ensure compliance in high-volume and complex environments.

RingRx provides healthcare providers with web-based communication by way of phone, text, fax, an automated on-call answering service, and a mobile application. The platform offers a wide array of capabilities that allow healthcare providers to tailor their workflows at the department and staff level in order to reduce task inefficiencies, optimize call route functionality, and maximize patient satisfaction. These capabilities include:

Mailbox Sharing – Mailbox sharing empowers teams to complete crossover tasks and gives administrators the tools they need to streamline supervision.

Email notifications – Teams are able to stay aware of the latest tasks through email, voicemail, and fax notifications.

Portal faxing – With portal faxing, faxes can be easily sent and received from any web-enabled PC or mobile device.

Text messaging – Healthcare organizations can keep patients engaged by communicating with them through the methods they prefer. (It's important to follow best practices for HIPAA-compliant texting.)

Ring groups – Ring groups are one of RingRx's most powerful and versatile features, enabling cross-sharing of incoming calls and texts to improve the patient experience while removing burden from staff.

CNAM – This features allows for the display of the correct office, department, or user name for full call transparency, leading to more rapid engagement with patients.

Privacy and reputation management – RingRx's call-blocking and filtering system eliminate unwanted telemarketing, robot, and other spam calls.

Inbound routing rules – Large call centers, specialized departments, or multi-location facilities can benefit from optimal routing that improves patient experience by reducing hold times and optimizing agent performance.

RingRx Cloud Deployment Maximizing Performance and Security

RingRx is designed and built completely with the cloud in mind—not just our cloud but any cloud. This means:

- RingRx is cloud technology-agnostic. We recognize that cloud computing providers are a fabric, and as a result, we designed the platform to be able to run on any of them.
- With a cloud-native product, we make no assumptions about the security of the network that the platform runs in. As a result RingRx encrypts all traffic, even between platform elements, using bi-directional authentication. This ensures that even if an attacker gained access to the cloud network, still nothing could be accessed.
- RingRx is a truly shared-nothing architecture. Modern cloud design philosophy dictates that anything and everything be impermanent. This means the platform has no single point of failure, no master databases, and connections between platform elements automatically self-reconfigure in the case of failures or expansion.

RingRx can be deployed as a fully hosted cloud PBX or as a private cloud installation utilizing the enterprise's chosen method of hosting. The decision of which method of deployment depends largely on size and efficiency and the company's internal resources for managing IT infrastructure.

Hosted

RingRx offers hosted service to clinics, hospitals, regional groups, and other enterprises. Hosted solutions are secure and independently managed with our dedicated support team, regional redundancy, and rigorous security.

Private Cloud

Private cloud deployments are provided for organizations with the need for greater control and specialized security practices. RingRx can provide support, or this can be run and managed completely with internal resources.'

Stringent Encryption Standards to Avoid Compromised Data

RingRx has fully embraced automation with LetsEncrypt allowing us to automate and manage certificates globally. LetsEncrypt certificates wrap all public and private communications in strong NIST approved security while orchestration lets us achieve a previously unknown level of security and scalability wrapping all voice and API communications.

- All certificates are trusted by common root authorities.
- Certificates maintain short lifecycles and are replaced automatically every 60 days.
- Certificates are not shared across elements. A single key breach never spreads.

Data at rest in all cases is completely encrypted and audited relying on a combination of disk/volume encryption and per record/document encryption.

- Call recordings each bear a unique encryption keyset generated per recording and stored completely separate from the recording itself, ensuring that a compromise of the recording storage cannot create a PHI breach.
- All storage in the platform sits on encrypted volumes so absent the running platform nothing can be read or lifted from the hardware or storage.
- Authorized access to PHI contained in voicemails and faxes creates an indelible audit trail that is geographically distributed with the data.

RINGRx

To learn more about RingRx and if it is the right fit for your organization, visit **RingRx.com** or **contact us** at (888) 980-6860 and request a **free trial.**