EQUINIX PROFESSIONAL SERVICES FOR CLOUD (EPS CLOUD)

EPS Cloud empowers a medical software company to leverage Microsoft Azure to improve scalability, cut costs and ensure compliance.

"By relying on Microsoft technology and the expertise of EPS Cloud, MIR benefited from an upgrade that created a value proposition in and of itself. We are able to service providers of all sizes to improve the patient experience, and ultimately patient outcomes."

Dr. Christopher Ray, Chief Technology Officer, Medical Information Records

Customer Profile

Medical Information Records, LLC (MIR) is a medical software holding company that leverages new technology to improve the point of care for patients, improve workflow and manage clinical data. It wholly owns an anesthesia-related software known as AnesthesiaOS™ and a half interest in a subsidiary known as HealthOS.

Headquarters
Houston, Texas
medicalInformationrecords.com

Overview/Executive Summary

MIR's AnesthesiaOS product was growing in sales, and the company's existing core infrastructure was not able to scale to meet the ongoing demand. The software was developed to function both as an on-premises and hosted solution, and subsequently needed to perform well in both deployment scenarios. Their infrastructure was deployed in a rented colocation facility, attracting high monthly fees regardless of utilization or footprint. With a usage profile that was not consistent, and an expected utilization of 25,000 cases per day, the software needed to be able to meet the load in the most critical of situations. In order to continue ensuring anesthesiologists and nurse anesthetists always had fast and reliable on-demand access, MIR turned to EPS Cloud to modernize their environment.

Business Challenge

MIR required the ability for AnesthesiaOS to scale rapidly to support their expanding customer base, while at the same time ensuring their industry-leading Anesthesia Information Management System (AIMS) and its capabilities were robust enough to meet the complex challenges in healthcare today.

Disaster recovery for the solution was another significant consideration. For the cloud-based model, MIR required services at several colocation facilities throughout the country to ensure their customers were able to access the systems both easily and without interruption.

Finally, as with any electronic medical record (EMR) system, security was of the utmost importance. The solution had to meet Health Information Portability and Accountability Act (HIPAA) requirements, and ensure that all personal health information (PHI) data was secured at all times.

Solution

EPS Cloud worked with MIR to migrate their cloud-based model from the colocation facility to Microsoft Azure. The EPS Cloud team leveraged a standardized migration and a collection of tools to ensure that the environment was migrated with limited interruption. The environment was secured to ensure that data, at any point in the application (either at rest or in transit), remained encrypted.

EPS Cloud also worked with MIR's development team to formalize their cloud development methodologies. This included a continuous deployment framework, source control and exception tracking systems. Physical separation of development, testing and production environments was enabled, guaranteeing PHI data was only accessible by approved personnel.

Finally, post migration, EPS Cloud enabled a multi-region disaster recovery model leveraging Microsoft SQL Server AlwaysOn features and replication to meet MIR's critical service levels at every layer in the application.

Expected Business Benefits and Results

Improved Scalability – MIR is now able to provide their AnesthesiaOS solution with an infrastructure that can scale to meet demand at a moment's notice and easily accommodate spikes in utilization.

Cost Reduction – With no expensive resources sitting idle, MIR can meet customer demand while ensuring low overall capital expenditures using a "just-in-time" model for application capacity.

Regulatory Compliance – By utilizing Azure, MIR is set up with a cloud environment that helps them address a wide range of international, country, and industry-specific regulatory requirements including HIPAA, ISO/IEC 27001:2005 Audit and Certification, and FISMA. With the recent certification of Microsoft Azure as an ISO 27018 cloud provider, MIR has ensured that their customers' patient data is protected. This certification is the only international set of privacy controls in the world.

MIR's new setup also helped to achieve Meaningful Use Stage 2 Certification through Microsoft SQL Server AlwaysOn features, encryption at rest, and audit log viewing of old and new data simultaneously. The Medicare and Medicaid Electronic Health Record (EHR) Incentive Programs provide financial incentives for the "meaningful use" of certified EHR technology to improve patient care.

Improved Disaster Recovery – MIR no longer needs to set up a fully-duplicated disaster recovery site, but can rely on Microsoft Azure as a safe place to store virtual machines, applications and data.

Technology Used

- **Microsoft Azure**
- **Windows Server 2012 R2**
- **Windows Server 2008 R2**
- **Microsoft SQL Server 2008 R2**
- **Microsoft SQL Server 2014**

About Equinix Professional Services for Cloud

Equinix Professional Services for Cloud (EPS Cloud) helps enterprises quickly and easily design, implement and optimize IT services to meet ever-changing cloud needs. All services and recommendations are carrier, service provider and technology neutral, ensuring every solution best meets each enterprise's unique business demands.

Learn more at
Equinix.com/epscloud

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