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THE NEW ENGLAND HEALTHCARE EXCHANGE NETWORK (NEHEN) GAINS MODERN INFRASTRUCTURE, REDUCES COSTS WITH CLOUD

Cloud infrastructure and services enable member organization to support high growth, sophisticated new transactions and innovation with stronger security, greater efficiency and lower costs

The Challenge

Homegrown and proprietary vendor solutions were increasingly inadequate for NEHEN, a not-for-profit member-based organization specializing in administrative healthcare information exchange (HIE). The regional exchange network encompasses more than 50 member organizations, including 55 hospitals, eight health plans, and tens of thousands of practitioners.

The organization required a modern, flexible and scalable infrastructure. Key requirements were to reduce administrative costs, enable member innovation, and support advanced transactions, including prior authorizations, referrals and combined administrative and clinical content.

The migration to a new infrastructure had to proceed quickly, ensure a high degree of reliability and support and strengthen stringent data security and HIPAA compliance requirements.

AT A GLANCE

NEHEN, a US-based regional health information exchange network required a modern, flexible infrastructure to support transaction growth and workflow innovation among its member organizations and practitioners. Reliability, privacy, security and compliance were all critical concerns. Cognizant upgraded the exchange to a robust and scalable cloud infrastructure solution, reducing operational costs while enabling more sophisticated transaction processing and improving security and privacy measures.

The Solution

Cognizant migrated NEHEN's systems to AWS Cloud, enabling its members to use standards-based communications protocols to process nearly 12 million transactions a month. The migration, accomplished in under three months, was seamless, with minimal downtime and service interruptions.

Cognizant also established a networking solution that provides secure connectivity with payers, providers and physicians while encompassing multiple technologies.

The solution offered enhanced security to meet regulations for maintaining personal health information (PHI) in a cloud environment. NEHEN achieved well defined support processes and SLA adherence while ensuring proactive monitoring and automated alert solutions for infrastructure and security.

The Approach

Cognizant began by studying the feasibility of a cloud migration, with time-to-go-live being one of the key success factors. Establishing best practices for perimeter security, antivirus, log management, network security and other appliances were critical to pass both Cognizant security reviews and customer audits.

To meet connectivity requirements with NEHEN's multiple partner channels, Cognizant developed a solution that combined AWS capabilities with the multiple technologies used by partners, including Cisco CSR routers, static and dynamic IP management to establish secured connections from multiple end points and the AWS environment.

Data migration posed additional challenges, with the incumbent vendor unable to support direct data transfer to AWS. Cognizant introduced fine-grained processes to receive data in physical drives and upload data to AWS securely. Automation expedited provisioning solutions. The solution includes high availability and supports the regulatory requirements of data retention along with secured encryption processes.

> Infrastructure is no longer a primary concern or limiting factor for our organization; now we can focus on value-added activities.

Project Highlights

- Migration completed within three months

- Scalable, reliable, agile infrastructure capabilities

- Support for ~12 million transactions per month

- Enhanced security and HIPAA compliance

- Proactive infrastructure monitoring

- Automated alerts

- Support for analytics tools

Cognizant's Cloud 360 platform provides operations and management support to NEHEN's AWS environment. The platform is used for orchestration, provisioning, and monitoring the environment for various KPIs, including usage, failures, charge backs, volume of active servers, network, real time alerts and application performance. Cloud 360 also delivers governance features and reporting dashboards and helps deliver cost savings by optimizing the use of AWS services.

Security operation services ensure data privacy and security by delivering security information log and event management; threat advisory and vulnerability assessment services; back up and restoration; advanced threat defence; and malware analysis.

NEHEN has gained a strong, agile infrastructure that easily supports standards-based workflow innovations created by its members as well as increasingly sophisticated healthcare industry data transaction sets. Standardized processes enable the organization and its members to use analytics tools across data sets to discern health and wellness patterns. These capabilities support the organization's business growth objectives in the near and long term.

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World Headquarters

500 Frank W. Burr Blvd.
Teaneck, NJ 07666 USA
Phone: +1 201 801 0233
Fax: +1 201 801 0243
Toll Free: +1 888 937 3277

European Headquarters

1 Kingdom Street
Paddington Central
London W2 6BD England
Phone: +44 (0) 20 7297 7600
Fax: +44 (0) 20 7121 0102

India Operations Headquarters

#5/535 Old Mahabalipuram Road
Okkiyam Pettai, Thoraipakkam
Chennai, 600 096 India
Phone: +91 (0) 44 4209 6000
Fax: +91 (0) 44 4209 6060