Customer Name: Aliera Healthcare

From website: Aliera Healthcare is a unique healthcare organization because it offers alternative health plans and options that most health insurance companies do not.

The Challenge

Aliera Healthcare entered a software development partnership with a new international vendor for the development of a new application. The application was developed outside of the US and leveraged Workspaces to connect to the Development and Test environments. This initiative required automated code deployment capabilities in their DEV\ Test environments within AWS. eCloud Managed Solutions was contracted for the environment architecture and buildout due to their experience in automated code deployment leveraging AWS services and implementing security and encryption capabilities to meet HIPAA requirements within the production environment. These requirements had to be met while ensuring cost containment, resource optimization and operational readiness. Aliera Healthcare needed additional reliability, increased uptime and scalability while addressing the legal regulations of the healthcare industry.

The eCloud Solution

eCloud Managed Solutions architected and implemented a design solution meeting the customer requirements and design goals over a 6-week period. Beginning by buildout of a VPC based on the AWS HIPAA QuickStart, setting up NAT gateways, Bastion hosts via separate VPC for secure remote management, security groups and key pairs. All while ensuring monitoring, availability and audit governance of the applications, tools and services leveraging CloudWatch and CloudTrail.

In order to meet the HIPAA compliance standards and ensure data security, all data was encrypted in transit and at rest and Intrusion Detection System (IDS) services were implemented. Amazon EBS (Elastic Block Storage) with encryption enabled was leveraged to meet the encryption at rest requirements. To ensure encryption of data in transit, SSL encryption was enabled and required for all internal and external communications between the applications and databases.

To ensure mission critical application availability, multiple Availability Zones (AZ) were leveraged with application load balancing (ALB) across each AZ, leveraging Route53. To monitor uptime, availability, ensure adherence to security requirements and prevent attacks and intrusions, a combination of Amazon WAF, CloudWatch and CloudTrail were leveraged. WAF security rules were implemented to provide control over which web application traffic was allowed. CloudWatch logging and alerting were implemented to ensure application scalability. CloudTrail, was utilized to monitor environment event history, ensuring governance, compliance and auditing services were being performed. While CloudWatch looks at application demands, CloudTrail notes AWS account activity, including changes to the Management Console, SDKs, and command line tools. Together, these services ensure this client always has automated eyes on their application security and performance.
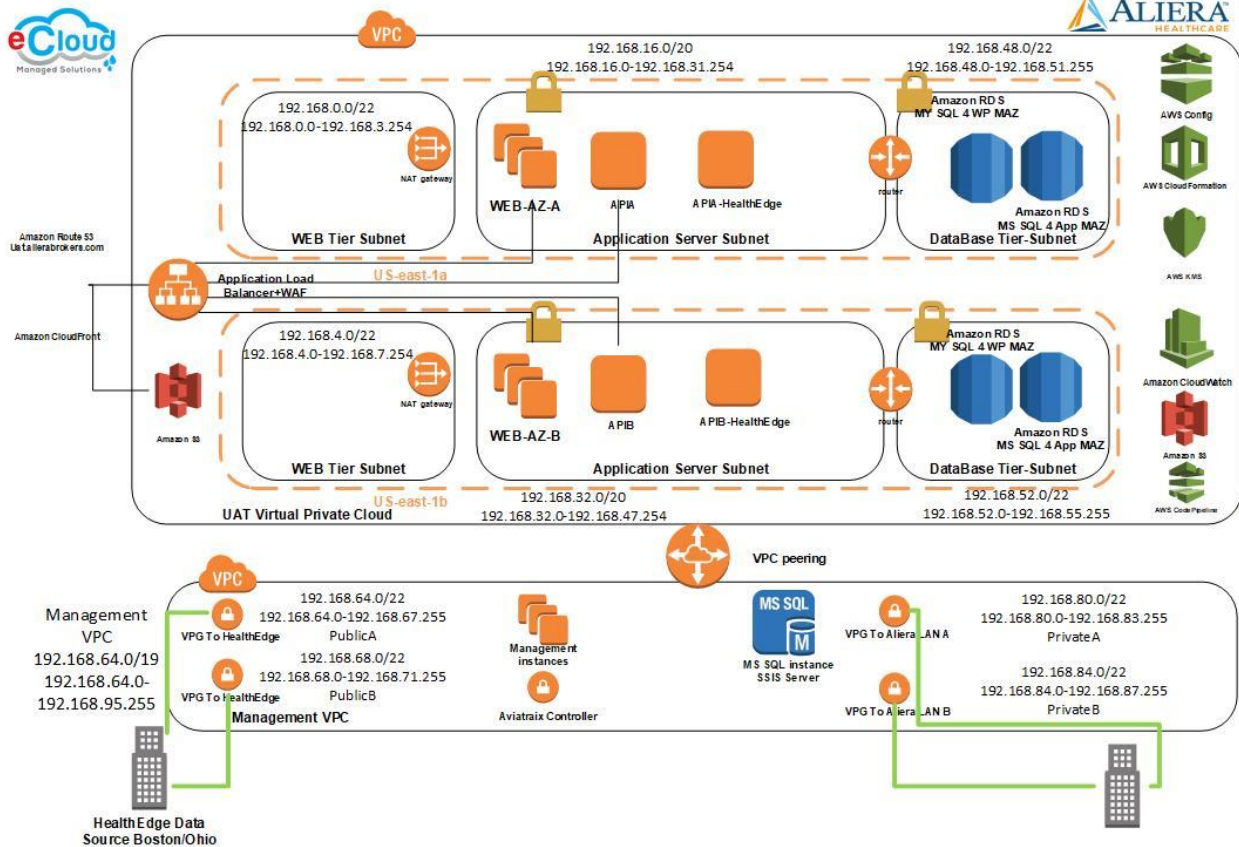
AWS Cost Optimization

Once the environments were deployed and tested, cloud storage policies were implemented to ensure cost optimization best practices, continuous evaluation and EC2 right sizing. Rules were implemented for S3, Infrequent S3 and Glacier to lower costs driven by compliance and well architected framework.

Outcome

With the new environment, Aliera Healthcare was able to leverage code deployment automation, time and resource savings through automation and global development capabilities. These primary goals were met, along with delivering cost optimization, savings and modernization of their production and pre-prod application environments.

By utilizing the AWS Well Architected Framework and leveraging the flexibility of AWS Platform, eCloud Managed Solutions was able to build and deliver a highly available and cost-effective pre-production

environment. Along with a highly secure production environment meeting the required controls of a HIPAA compliant framework.

Post Implementation Details

Migration completion date	4/2019
Root account owner	Aliera Healthcare
Business Associate Agreement	A BAA exists between Aliera\ AWS