Security Company Re-Factors Its Solution for Faster Time-to-Market with Help of ClearScale

Security Company

Executive Summary

As the services that Amazon Web Services (AWS) have evolved and become more complex and ubiquitous in the market, customers have increasingly relied on the knowledge and skills that ClearScale, an AWS Certified Premier Partner, possesses. This has enabled them to leverage many features that AWS has to offer without the extended time to build the expertise in-house to migrate their own products or services into the cloud.

Since 2011, ClearScale has worked and partnered with numerous clients to either develop solutions natively within AWS or migrate existing solutions from legacy architectures to newer, more robust and scalable solutions heavily utilizing AWS Services.

Whether clients are small or medium businesses looking to move their operations into the cloud or large enterprise-level organizations that have a global footprint whose customers have a reliance on their up-time, ClearScale's approach is to fully analyze the existing implementation and determine the best approach to moving the client into AWS.

It was this latter type of client that ClearScale worked with to move their security operations entirely out of existing data centers into a reimagined architectural framework within the AWS Cloud. In order to do this, it would require a substantial amount of refactoring of the existing codebase so that it would become more performant.

The Challenge

ClearScale's client operated a security product that was hosted within data centers around the world. Designed to help their customers manage both inbound and outbound customer data and provide multiple layers of security, this client's product was used by organizations around the world for both on-premise and Cloud-based solutions.

Because more of the client's customers were moving to AWS for their infrastructure and application needs, the client understood the necessity to provide their own solution within the cloud for their customers to use. Beyond simply making their product available in the Cloud, the client had some tangible results they wanted to see in order to consider the newly refactored cloud deployment a success.

Due to the complexity of how the product was managed and maintained within the existing data centers, the cost was higher than the client preferred. The client also had a desire to have a solution that was easy to deploy and scalable as customer needs increased, and the client understood that any solution needed to fall within regulatory guidelines established throughout the world so as to protect their clientele.

The ClearScale Solution

ClearScale went through a requirements-gathering process and designed an architecture within AWS that provided stability, scalability, and redundancy. By leveraging well-proven AWS services, ClearScale was able to design and deploy a solution within a few Availability Zones in one region. Not only did this give the client an opportunity to test out the solution in a real-world setting prior to rolling it out on a global scale, it allowed for them to demonstrate the feasibility of the service under the auspices of region-specific regulatory compliance.

Infrastructure Design
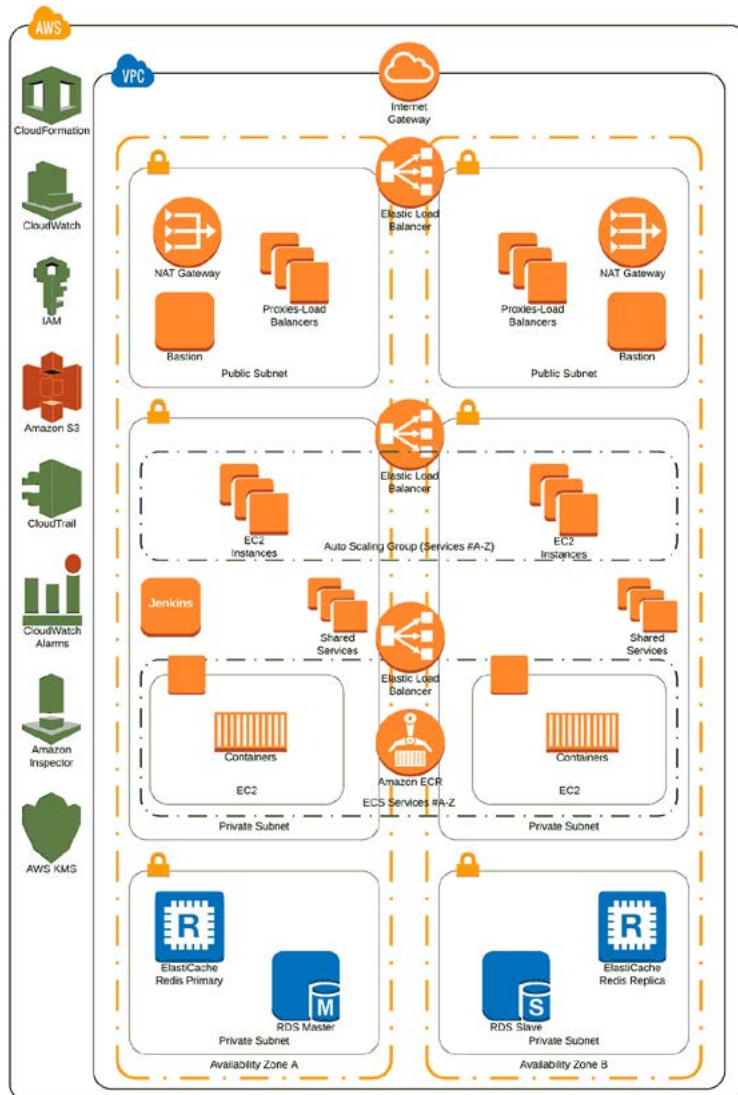
Architecture includes the following features: AWS VPC Multi-AZ architecture with separate subnets for different application tiers, and private subnets for applications and databases; multi-tier application using different technologies (AWS EC2 Auto Scaling and Elastic Load Balancing, AWS EC2 Auto Recovery and third party Load Balancing, and AWS Elastic Container Service for microservices); encrypted secondary EBS volumes; logging, monitoring, and alerts using ELK (Elasticsearch+Logstash+Kibana) stack, AWS CloudTrail, and CloudWatch; and a Multi-AZ AWS RDS database and AWS ElastiCache. Deployment is managed by Jenkins.

The successfully refactored deployment of the AWS Cloud solution enabled the client to modify their operational model by locating their security product and security solution from AWS instead of data centers. They experienced an ability to instantiate, deploy, and scale their product quickly to their customers based on demand. The product also exhibited increased stability with up-time exceeding 99.99%.

Furthermore, moving the product out of the data centers and into a distributed cloud architecture in AWS, they saw immediate decreases in cost across the board from an operational perspective. They were able to demonstrate a reduction in maintenance overhead costs that fell far below their previous data-center-only operations, which in turn contributed to a positive ROI. Having utilized AWS Services elsewhere in their company, the client was able to show how heavy investment in the cloud for both operations and application deployment led to significant savings in costs, highly reliable services for their customer base and increased customer satisfaction.

This partnership resulted in not only confirming with the client that the approach that had been devised by ClearScale was ideal given the circumstances and requirements they had provided, but it allowed the client to demonstrate to their own customer base their continued investment in technologies that would help their organization succeed. Having been deployed in a single region, the client was able to further test and refine their product and delivery model before it was introduced into other markets.

The Benefits

ClearScale evaluates each client's need from an objective viewpoint. Regardless of the requirements, the scale of the project, or the ultimate goals each client want to achieve, ClearScale provides an in-depth review of how best to leverage AWS Services to meet specific client needs. Once a project has been designed, developed, and deployed, the solution is handed off to the client and includes comprehensive training and knowledge transfer to make the client successful.

Moreover, the knowledge and skills ClearScale brings to bear on even the most complex projects means that a solution will be designed and delivered that will allow your organization to reliably scale and grow. Partnering with ClearScale means not only discovering the right solution, but knowing that we can provide guidance and direction for your continued growth into the future.