PRESIDIO®

CASE STUDY

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RED BEACH ADVISORS

MIGRATION TO AWS

Technologies: AWS CloudFormation, EC2, ECS, RDS, EFS, Amazon Linux, Docker

THE CUSTOMER

Red Beach Advisors (RBA) is a technology management consulting company based in California. Their clients and partners include some of the biggest names in technology and business. RBA helps companies build, grow, and scale through consultation with strategy, process, systems, and people. They work with companies to increase revenue, enhance operational performance, guide organizational development, implement lean process, and improve product marketing strategies.

THE CHALLENGE

RBA operated a public facing internet presence which allowed visitors to find information about the capabilities and services of Red Beach Advisors, read case studies of successful client engagements and provides a means of contacting RBA. Additionally, it provided a platform for sharing tips and best practices on technology and business.

RBA was searching for a partner to manage the platform that delivered the critical public facing site and migrate it to a more resilient platform that could grow with them. Additionally, they only had three weeks to perform the migration. The RBA team engaged Presidio to help them meet the goal of migration to the cloud as part of their onboarding to cloud managed services provided by Presidio Managed Cloud Services.

The solution required:

◆ Analysis of the existing application to assess migration possibilities.
◆ Determination of the migration path based on desired platform capabilities of reliability, scalability and security.

◆ Near-zero downtime for application cutover to the new cloud-based platform.
◆ A familiar workflow for the content creators for the RBA application.

WHY AWS

In their experience providing technology and management consulting, RBA was deeply familiar with AWS and its capabilities. They knew AWS could provide the foundation they needed to deliver their message to potential clients and partners.

HOW PRESIDIO HELPED RED BEACH ADVISORS SOLVE THE PROBLEM

The engagement with Presidio began quickly, with Presidio laying the foundation in RBA's existing AWS account. This included Presidio's Managed Services best practices for AWS being deployed through CloudFormation. Because the existing application was hosted in a black-box hosting platform, Presidio met with the customer to perform application discovery and gather details about the application, its dependencies and requirements. Additionally, logs from the existing application were analyzed to determine the baseline application load, user geographies and data transfer requirements.

The migration planning began after the assessment. After reviewing the possible migration paths, Presidio and RBA selected the re-platform path for this application due to the black-box nature of the current application hosting. Presidio designed a solution that allowed RBA to maintain their content creator workflows and did not require re-training staff, while also increasing reliability and security.

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Red Beach Advisors

The solution design included the following AWS Well-Architected Framework characteristics:

◆ **Reliability**
In the event of an Availability Zone failure, a new EC2 instance will automatically be created in an alternate zone and the website will recover.

The database tier and shared file storage for content are both Multi-AZ managed AWS services.

◆ **Performance Efficiency**
With Auto Scaling, multiple EC2 instances (and the WordPress application containers on them) will be created automatically to match application demand.

The database tier can be scaled up independently of the application tier as demand or query complexity grows.

File storage access capacity can burst as needed and additional provisioned throughput can be quickly created.

◆ **Security**
Each tier of the application has the least privilege from IAM and networking perspectives.

Governance and security services provide additional insight into the security of the overall environment. Data is protected at rest (KMS- S3, EBS, EFS, RDS) and in transit (ACM- ALB).

◆ **Operational Excellence**
Upgrades to underlying EC2 instances, Wordpress application containers (performed through CodePipeline and CodeDeploy) and database versions are automated and require zero downtime for completion.

Logging and monitoring are provided by Datadog with a central view into workload and account health.

THE MIGRATION

The infrastructure for the application migration was quickly provisioned using Presidio's library of CloudFormation templates. This allowed quick and consistent creation of the application environment for migration testing.

As part of the pre-cutover tasks, backups were taken of the existing application's shared file storage and database. These were restored to EFS and RDS, respectively. With a productionlike application in place, functional and load testing were carried out to ensure the application met its performance requirements, the data backup-restore procedures were correct, and all application functionality remained intact.

When all tests were completed successfully, the final data replication and cutover were scheduled. Using Route 53, Presidio was able to ensure a smooth transition to the migrated application.

THE IMPACT

With the solution designed and migration executed by Presidio, Red Beach Advisors was able to:

◆ Migrate their critical web presence into the cloud
◆ Increase the security and reliability of their application
◆ Maintain content creator workflows to ensure continued publishi
◆ Bring their application under management by Presidio Managed Cloud Services

FOR MORE INFORMATION CONTACT US AT: INQUIRIES@PRESIDIO.COM.