

CASE STUDY

TOKIO MARINE LEVERAGES DEVOPS & AWS TO ELEVATE CUSTOMER-FACING APPLICATION QUALITY

ABOUT OUR CUSTOMER

Tokio Marine HCC is a Texas-based, international specialty insurance group with offices spanning the United States, United Kingdom, Spain, and Ireland. Tokio Marine HCC underwrites more than 100 classes of specialty insurance within five segments including: U.S. property & casualty, professional liability, accident & health, U.S. surety & credit, and international.

THE CHALLENGE

Faced with policy updates and website changes, Tokio Marine felt the time had come to embrace DevOps practices and leverage the latest technology for two business-critical, customer-facing applications. Up until then, implementing software updates and features was highly manual, requiring an extended timeframe. Stability and quality issues were impacting the customer experience. Tokio Marine needed a streamlined, automated continuous delivery framework to expedite time to market for application updates and increase the quality and stability of production code.



THE SOLUTION

Tokio Marine turned to Beyondsoft. Within five months, Beyondsoft had migrated both applications to agile, AWS technology and had established an automated DevOps framework.

To take advantage of serverless compute and automated provisioning capabilities, Beyondsoft moved their brokerage application from ECS to AWS Lambda. The move enabled developers to use the AWS Cloud Development Kit (CDK) tool to provision AWS CodeCommit pipelines for continuous and automated code delivery as well as leverage integrated tools such as AWS CodePipeline and AWS CodeBuild. Beyondsoft moved their online payment application from EC2 to Amazon Elastic Kubernetes Service (EKS). By migrating to EKS, pods and nodes are managed automatically.

Beyondsoft also built a custom framework shared by both products to automatically provision code, generating a CodeBuild/CodePipeline process based upon developer CodeCommits. When a developer updates code, the framework automatically compiles the code, validates quality, and deploys the code to the Lambda development environment. From there the Code Run Time Security Check is validated using VeraCode. Once it passes, the code is deployed to UAT where test cases are run, followed by regression testing using Blaze Meter. Once the code passes these steps, it gets deployed to production.

RESULTS

- Increased product quality: By drastically reducing the number of defects introduced into production, product

quality and stability has improved substantially.

- Accelerated product delivery: Continuous integration/continuous delivery (CI/CD) ensures updates and features can be deployed rapidly.
- Improved customer experience: Improved application quality and stability and the ability to introduce new product features rapidly has elevated the customer experience.
- Greater operational efficiency: Thanks to automation, updating code has gone from 3-4 hours to just 10 minutes, substantially reducing the strain on developers.
- Integrated feedback cycles: Integrated feedback keeps the application team informed in advance of issues.
- Increased visibility: The customer has greater visibility into the changes that are going into production.

TECHNOLOGIES USED

AWS Lambda, AWS CodeCommit, AWS CodePipeline, AWS CodeBuild, AWS APIGateway, AWS Cloud Development Kit (CDK), Amazon Elastic Kubernetes Service (EKS) SonarQube, Veracode

ABOUT BEYONDSOFT

As an [AWS DevOps Competency Partner](#), Beyondsoft has invested in building deep DevOps proficiency on the AWS platform. Our certified practitioners combine agile AWS tools, best practices, and methodologies along with our BCI DevOps enablement framework to establish an enterprise-scalable CI/CD platform with automated practices to expedite innovation and meet your business objectives.

Beyondsoft has a deep history of empowering companies around the world through high quality IT services. At the heart of our success is a diversely talented team of 14,000+ experts who thrive on innovation. With 32 delivery centers distributed across five continents, our presence in both mature and emerging markets enables us to respond quickly to customers' needs on a local, regional, and global level.