Veracode Helps Developers Find Security Flaws Faster Using AWS

Veracode gives developers fast feedback on security risks, scales to support tens of thousands of vulnerability scans, and gets new features to market faster using Amazon Web Services. Veracode offers cloud-based application-security services. The company runs its Greenlight security-scan application on AWS Lambda and Amazon API Gateway.

Helping Software Developers Find and Fix Security Flaws

Veracode, a CA Technologies company, is on a mission to secure software applications so developers don’t release software that could be susceptible to breaches. As part of this mission, the company created Greenlight, a tool that helps developers discover and fix security-related defects while they are writing code.

Because Greenlight is designed to find security flaws quickly, Veracode must ensure strong performance. “We need to deliver security vulnerability results in under a minute,” says Patrick Day, principal cloud engineer for Veracode. “If developers wait too long for the data, they’ll move on to a different product.” Veracode also needs to scale its solution to accommodate growth. “As we were building the application, we needed to plan for increases in code-scan volume,” Day says.

As an application-development company, Veracode also strives to reduce the amount of time employees spend managing the IT environment. Day says, “We’re focused on developing and deploying products, so we don’t want to put our resources and energy into managing and provisioning.”

Supporting a Cloud-Based Application Using AWS Lambda and Amazon API Gateway

Veracode chose to meet its needs for speed, scalability, and time savings by building Greenlight on the Amazon Web Services (AWS) Cloud. “I had used AWS in previous jobs, and I was very confident in its ability to provide reliability and scalability,” Day says. “At Veracode, we were also excited because we saw that AWS would enable rapid prototyping without a lot of backend management.”

Veracode initially ran its Greenlight application on numerous Amazon Elastic Compute Cloud (Amazon EC2) instances. Recently, the company started using AWS Lambda, a managed service that gives Veracode the ability to run code without provisioning and managing servers. Veracode also uses Amazon API Gateway to access data and functionality for Greenlight. Additionally, the company uses Auto Scaling to automatically scale Greenlight up or down based on scan-volume growth. To enhance application security, Veracode takes advantage of AWS Key Management Service (AWS KMS), a managed service that helps the company create and control encryption keys to encrypt Greenlight data.

Veracode cuts testing time by one day each week because developers don’t have to manage backend systems.

About the Customer

Veracode, a CA Technologies company based in Burlington, Massachusetts, is a growing application-security company. Founded in 2006, the company provides an automated cloud-based service for securing web, mobile, and third-party enterprise applications.

Benefits

- Gives developers near-instant feedback on security vulnerabilities
- Quickly scales to support tens of thousands of new vulnerability scans
- Speeds new features to customers by reducing deployment time

AWS Services Used

- Amazon EC2
- AWS Lambda
- Amazon API Gateway
- AWS Key Management Service
- Auto Scaling
Driving Performance and Supporting Thousands of Additional Scans

Using the AWS Cloud has allowed Veracode to drive strong performance for Greenlight. “Speed is everything in our industry, and we can reliably deliver fast vulnerability scans by relying on AWS,” says Day. “Our customers used to wait hours or days for data in larger applications, but they’re getting nearly instant feedback because we’re running on AWS. This means they can fix potential security issues before they commit code.”

The organization can also quickly scale Greenlight to support application growth. “We recently saw our vulnerability-scan volume jump from 100 scans to 55,000 scans in a very short time frame, and we were able to support that without any difficulty because of the scalability we get by using AWS,” says Day.

Getting New Features to Customers Faster

Because Veracode runs Greenlight in the cloud, the company’s developers can focus on building new features instead of spending time managing the application’s backend systems. “We don’t have to worry about provisioning servers because AWS Lambda and Amazon API Gateway do everything for us,” says Day. “That saves us about one day of testing time each week.”

With more time available, Veracode developers can deliver new features and enhancements faster than before. “We used to deploy a few times a day, but now we can deploy every 15 minutes,” says Day. “That’s due to the automation, reliability, and scalability of the AWS Cloud. And because we can deliver smaller units of work more frequently, our customers see more new features faster.”

By running Greenlight on AWS, Veracode is ultimately achieving its goal of assisting developers in stopping application vulnerabilities. “We are able to give our customers confidence that their deployments aren’t introducing security risks,” says Day. “That’s our mission, and we can support that mission better on AWS.”

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