Forcepoint's new SaaS offering stores and manages security policies on Amazon Aurora

Case Study

Executive Summary

By using Amazon Aurora to store, manage, and run customers' policies in their new Dynamic Edge Protection offering, Forcepoint makes it easier for their customers to set up and manage their global web and network security policy.

The Challenge

The company's cloud web security solution allows customers to monitor and protect their users from anywhere. It was built over ten years ago in a datacenter using a MySQL database and custom hardware. This solution currently serves over 8,000 customers, which have between 5,000-100,000 users each for a grand total of more than 180 GB of data. Managing and scaling the system is a huge undertaking. Not only does the IT team spend an inordinate amount of updating software and hardware, but they're also limited in their ability to harness new technologies for improved features and functionality.

The Solution

Using the PostgreSQL engine in Amazon Aurora, Forcepoint created Dynamic Edge Protection, a new SaaS solution for cost-effective web and network protection that provides secure, direct-to-cloud connectivity. They chose Amazon Aurora for its fully managed services, ease of scaling, and continuously updated capabilities. The new service leverages the company's learnings from their first-generation product and includes new functionality that increases customer security and improves DBA efficiency. Acting as the policy database in Dynamic Edge Protection, Amazon Aurora manages the rules on the backend, storing policies and applying them to customers' web and network defenses as needed.

About Forcepoint

Forcepoint, a global cybersecurity leader, creates products and services that protect more than 20,000 government organizations and enterprises in 150+ countries. The company utilizes a systems-oriented approach to insider threat detection and analytics. Their products offer cloud-based user and application protection, next-gen network protection, data security, and systems visibility. Forcepoint delivers data-centric, integrated solutions built on proactive and context-based technologies that result from 20 years of frontline experience.

> "With Forcepoint's help, we've found the right balance between safety and productivity."
>
> – Patrick Viner
> IT Operations Manager, CPP Group

> "With Amazon Aurora, we don't need to manage infrastructure or scaling. Instead, we can focus on developing converged web and network security run-time services."
>
> — Larry Huston
> Chief Architect for Commercial Products, Forcepoint

Results and Benefits

Running the SaaS offering on Amazon Aurora has allowed Forcepoint to reimagine how they allocate their IT team's talent and plan the future of their product.

Frees IT to focus on solving business challenges

The Dynamic Edge Protection service works by running massive numbers of policies through models to customize network defenses for different users and different locations. "To manage all that data, we need something scalable," says Huston, "but we don't want to be DBAs. We want to focus on our value add around security." By building on Amazon Aurora, Huston's team can, "add clusters in a few clicks and get back to work right way. It's a huge improvement compared to scaling the on-premises solution, which started with a trip to the CFO for a purchase order and ended weeks later."

Enables new functionality and future proofing

Building on Amazon Aurora allows Forcepoint to easily add new functionality to their solution that surpasses what they were able to do on-premises. "With Dynamic Edge Protection we offer full network security capabilities, including network filtering, intrusion preventions, malware filtering, and content filtering," Huston says. In the future, they plan to continue extending their product's capabilities by leveraging new services rolled out by AWS as part of the Amazon Aurora platform. "We will keep adding functionality over time," assures Huston.

Simplifies performance research with built-in tooling

The Forcepoint team is looking forward to using Amazon Aurora to help them monitor and optimize performance of the new solution. "Amazon Aurora has been operationalized so we can run experiments on it without affecting production," says Huston. This comes in handy for testing new schemas and infrastructure configurations. "Amazon gives you out-of-the-box tooling that will help us monitor our performance. Using the snapshotting features, we will be able to run it on a different cluster and see what the performance is like using real data," Huston explains. "In our current datacenter, if we suspect we're having a performance issue due to scaling, it's expensive to even do the research."

Learn more

Amazon Aurora is a MySQL and PostgreSQL-compatible relational database built for the cloud, that combines the performance and availability of traditional enterprise databases with the simplicity and cost-effectiveness of open source databases. Amazon Aurora is up to five times faster than standard MySQL databases and three times faster than standard PostgreSQL databases. It provides the security, availability, and reliability of commercial databases at 1/10th the cost.