Barracuda helps reduce IT costs and customer delays by migrating to Amazon Aurora

Case Study

Executive Summary

By migrating the on-premises MySQL databases that run the Barracuda Appliance Control (BAC) solution to Amazon Aurora, Barracuda helped improve performance, increase internal teams' productivity, and lower IT costs. BAC enables customers to view and administer connected Barracuda solutions via a single dashboard. Because BAC was built on-premises, internal teams spent a lot of time load balancing and making updates to the database and infrastructure to keep customers' workloads running smoothly as they expanded.

The Challenge

Customers often run more than one Barracuda solution at a time for comprehensive security. BAC helps coordinate these different products and maximize their combined protection. Big changes within a customer's IT environment or the presence of unusual activity can affect the scaling, load balancing, and/or compute resources of the locally managed MySQL databases that run BAC. This can result in slow performance. Addressing these unpredictable situations takes Barracuda's engineers and operations team anywhere from five minutes to five days. They wanted a solution that would allow their personnel to focus on higher value tasks while providing customers a seamless experience.

The Solution

Barracuda migrated its BAC solution from the on-premises databases they managed internally to Amazon Aurora, a fully managed service. The move has helped the company realize its primary objectives to improve the reliability of the service and lower their management costs. It has also provided additional benefits that they use to enhance their business.

About Barracuda

Barracuda provides businesses of all sizes access to cloud-enabled, enterprise-grade security solutions for their email, networks, data, and applications. More than 200,000 organizations worldwide trust Barracuda to protect them from today's advanced threats so they can focus on taking their business to the next level. The easy-to-use IT-security platform with best-in-class customer support offers innovative security solutions that every business can afford.

> " Running on Amazon Aurora provides a better end-customer experience. Now, we have the visibility to do the remediation necessary to make sure the experience is seamless, so customers don't see issues. "
>
> — Umesh Toprani
>   Vice President, Cloud Operations at Barracuda Networks

Results and Benefits

The purpose of the BAC solution is to create cumulative security benefits by optimizing how multiple Barracuda products work together. When BAC ran out of on-premise databases, Barracuda spent time and resources identifying and fixing performance issues. By moving to Amazon Aurora, Barracuda was able to up-level its customer service experience, save money, and focus on innovation.

Reduced costs through managed services that automate troubleshooting

One of the biggest motivations for moving to a fully managed database service was to reduce the need for manual intervention for undifferentiated tasks such as load balancing and scaling. "We wanted to eliminate operational support required from our team, improve performance problems, and minimize interruption," explained Travis Newby, Director of Cloud Operations at Barracuda Networks. "We were looking for a solution that would have the least operational impact on our team going forward. That's one of the key reasons we opted for Aurora."

Improved product reliability leading to better customer experience

When BAC was running on physical servers, the company received performance complaints. Since the migration, "we haven't had any issues," said Travis. The change is due largely to Amazon Aurora's capacity to scale and its automatic response to real-time changes to customer workloads. Engineers have been using Amazon Aurora's rich telemetry too, "to performance tune the application and reduce down time," Travis explained. "Before we moved, it was harder to collect metrics, so we didn't have sufficient data." Now they're able to better understand their workloads and apply what they learn to future iterations.

Simplified processes for spinning up and isolating development environments

As a company, Barracuda uses other AWS services, including Amazon Aurora, across its offerings. By running BAC in the same environment, the development team is better able to release and/or test new ideas more quickly. "We're no longer held back by infrastructure or configuration bottlenecks, which means we're able to turn around the code faster," explained Travis. Likewise, "Amazon Aurora makes it much easier to spin up new environments using configurations we previously built and saved, and it allows us to implement total network and data isolation with just a few lines of code."

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.