SUCCESS STORY

ATLASSIAN

Pulse Secure Virtual Application Delivery Controller helps Atlassian deliver innovative SaaS solutions to streamline collaboration

For Atlassian, a leader in the field of collaboration software and development tools, Pulse Secure Virtual Traffic Manager (vTM) has helped to transition its software as a service (SaaS) offering seamlessly to the cloud. In addition, it offers a significant reduction in management complexity, while aiding in critical troubleshooting activities. With the addition of Pulse Secure Services Director, Atlassian also enjoys enhanced flexibility to scale rapidly to meet growing demand while benefiting from cost efficient resource allocation.

Executive Summary

Company

- Atlassian

Industry

- Collaboration Software

Technology Challenges

- Migration from its own managed data centre to deliver its SaaS offering from Amazon Web Services

Solution

- Pulse Secure Virtual Traffic Manager
- Pulse Secure Services Director

Results

- Advanced traffic scripting capability aids with live traffic analysis and data collection to improve troubleshooting
- 95% reduction in the time taken to deploy new application clusters with less management complexity
- Improved application performance through innovative bandwidth management techniques to ensure high user satisfaction

Challenge

Atlassian believes in "the power of teamwork" and that behind every great human achievement, there is a team. From medicine and space travel, to disaster response and pizza deliveries, Atlassian products help teams all over the planet reach their goals through the power of software.

Today, teams at more than 125,000 customers, including both large and small organizations, use Atlassian's project tracking, content creation and sharing, and service management products to work better together and deliver quality results on time.

Atlassian offers its products in several ways, including standalone server applications, client managed data centre deployments and its own SaaS Cloud. Up until four years ago, 90% of its SaaS offering was delivered from its own managed data centres. But, as Nicolas Meessen, Senior Principal Network Engineer at Atlassian explains, "We are a software company and it's not really our core competency to run data centres. A strategic decision was made to move our SaaS platform into Amazon Web Services, which has the scale and reach to serve our growing international customer community."

Solution

For several years prior to its move to AWS, Atlassian had used Pulse Secure Virtual Traffic Manager (vTM) as a software-based Layer 7 application delivery controller (ADC) within its own managed data centres. In addition to removing the burden of managing a network of data centres, the move to AWS provided Atlassian with several additional advantages including more deployment flexibility and enhanced resiliency through its global presence.

Pulse Secure®

Why Pulse Secure

"Pulse vTM provided us with our primary edge connection for our old SaaS offering, which managed hardware redundancy and IP traffic management with great performance that we could scale with relative ease through more virtual instances. We were happy with its capabilities, so it was the natural choice to support our move to the public cloud."

- Nicolas Meessen, Senior Principal Network Engineer Atlassian

However, the built-in AWS application traffic management capabilities did not have the advanced features offered by the Pulse Secure vTM, such as TrafficScript and customization that Atlassian had benefited from within its data centre SaaS solution.

Compared to open source alternatives that would require integration between multiple elements to gain a comparable level of functionality, Pulse Secure vTM offers a single platform designed to integrate seamlessly with any application deployed on Amazon Web Services. This includes load balancing, application scalability, and fine-grained application control.

"Where it used to take half a day to create and roll out a new application cluster, we can do it in a half an hour with Pulse Secure vTM and Terraform. If needed, we can roll back any changes just as quickly."

Atlassian also deployed the Pulse Secure Services Director to allow flexible sharing of Pulse Secure vTM capacity. This enabled cost-efficient resource allocation based on demand, further helping the expansion of its operations and move to the cloud. As a result, the company can deploy resources wherever and whenever they are needed, which improves its business agility, operational flexibility, and scability.

Benefits

Alongside ease of migration, another key capability was the vTM's built-in support for Terraform, an open source tool for describing and automating the provisioning and configuration of application services. Atlassian also benefited from the enhanced bandwidth management capabilities within Pulse Secure vTM, including Request Rate Shaping. This capability allowed Atlassian to spread available resources more evenly across connections to ensure that all SaaS users were gaining an equal level of performance with the lowest levels of latency.

Pulse Secure vTM also helped the Atlassian IT team track and troubleshoot performance, by inserting custom tracing tags into live traffic for collection and analysis. As Meessen explains, "Using Pulse Secure's vTM TrafficScript capability, we were able to insert Zipkin tags into transactions that help gather timing data needed to troubleshoot latency problems across our microservice architectures." This JSON data is imported into a centralized trace service and provides the Atlassian IT team with a rich set of dashboards to quickly identify and fix any service issues.

The implementation of Pulse Secure vTM on AWS continues to be a success and Atlassian is handling more than 60,000 dynamic content requests/second through multiple clusters of virtualised appliances. "Pulse Secure vTMs are a critical part of how we deliver our SaaS service," says Meessen. "The technology helps us to provide the best possible customer experience while offering us the flexibility to grow and adapt as our products and services evolve."

With the combination of its progressive use of cutting-edge technology and processes that include Pulse Secure vTM, Terraform, and its own software such as Jira and Confluence, Atlassian is moving towards a more DevOps-focused culture. "Elements such as Pulse Secure vTM that support open standards and transparency really match the philosophy of Atlassian, and we look forward to working closely in the future," Meessen adds.

Pulse Secure®

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