



APV SERIES CASE STUDY

Uila, Inc.

Software startup assures performance and security of SaaS operation through load balancing and SSL offloading with WebSockets support via APV Series application delivery controllers.

Background

Silicon Valley-based Uila, Inc. (pronounced "wee-la") is the developer of an industry-first application-aware infrastructure performance management (AA-IPM) solution that allows IT managers of virtualized data centers to quickly and easily identify and remediate application performance problems due to compute, storage, and network issues. The company launched its flagship product in early 2016.

Unique in the virtualization world, Uila bridges the silos inherent in other data center management tools and allows virtual infrastructure managers to gain full stack visibility and correlation from virtualized infrastructure up to application performance and down to physical compute, storage and networking resources. The Uila solution reduces application outages, prevents service disruption that may arise from stressed infrastructure, and proactively tunes the performance of business-critical applications.

Industry

Technology/SaaS

Challenges

Needed to derive the best possible service from back-end servers, with limited bandwidth

Support traffic running on WebSocket protocol

Assure security of customer data without impacting performance

Solution

Array APV1600 application delivery controller with AppVelocity-S for load balancing and hardware-based SSL offloading and acceleration

Benefits

APV1600 provides server load balancing for Uila cloud, distributing load across multiple servers to keep them running in their power band

Downtime due to maintenance or failed servers does not impact service levels

Compute-intensive SSL processing is offloaded from Uila application servers, reducing load and freeing resources for core functions

Scalable solution positions Uila to serve a growing customer base now and in the future

The solution is offered as a cloud-based software-as-a-service (SaaS) offering, or as a premise-based solution.

Challenges

Prior to the official launch the Uila team worked for a number of years developing and refining both the premise-based and SaaS solutions. The SaaS service in particular would require a robust, scalable cloud data center to serve a rapidly growing customer base. Further, the data center would need to run non-stop, year-round, to provide a high level of availability to Uila customers.

Among the Uila team's key goals was to maintain performance, throughput and availability of the Uila cloud while minimizing bandwidth costs, and to assure a high degree of security for customers' data traversing the Internet to the SaaS service.

The team determined that an application delivery controller, often called a load balancer, could accommodate the first two goals related to application performance and cost reduction. A physical ADC appliance was preferred, as VM-based appliance would not have the predictable performance levels available through a dedicated appliance.

The third goal, however, proved more difficult to achieve. After careful consideration, the Uila team had chosen the WebSocket protocol as the transmission method for customer data to and from the Uila cloud. In addition, the team wanted the ADC to encrypt and decrypt the SSL-secured sessions to further remove processing load from the servers.

The team researched multiple application delivery controllers but was unable to find a cost-effective product that supported WebSockets.

Solution and Results

Uila reached out to San Jose-based aXcelerate Networks, an Array Total Value Partner with a long history of providing technology guidance to businesses large and small throughout the Bay Area. aXcelerate introduced the Uila team to the Array Networks APV Series ADCs, which not only support the WebSocket protocol, but provide industry-leading performance with the lowest price per SSL transactions per second (TPS) ratio. A demo APV Series appliance was installed as a proof of concept.

"In order to maximize the value of our SaaS cloud for customers, we needed to get the best possible service from our back-end servers, consume the least bandwidth and the best performance possible. The Array product allows us to accomplish these goals with an easy-to-use, scalable and high-performance platform..."

**Dean Au, COO and Co-Founder
Uila, Inc.**

"It only took us one afternoon to get the appliance up and running," said Dean Au, COO and co-founder of Uila. "It was super easy to install, and it's very easy to use," he continued.

The APV1600 was chosen for the initial deployment; however because the same code base is used throughout the entire APV Series product line, as Uila's customer base grows the data center managers will be able to easily

upgrade to larger models to accommodate growing workloads.

The APV1600 provides server load balancing for the Uila cloud, ensuring that traffic is distributed evenly among the servers, as well as maintaining session persistence. If a server is taken offline for maintenance or becomes unavailable due to an outage, customer traffic is seamlessly diverted to other, healthy servers.

The APV Series appliance also provides 2048-bit SSL offloading for the Uila cloud, managing compute-intensive key exchange, bulk encryption and client certificate management. This strategy allows Uila's bare-metal application servers to focus on their primary goal: managing the big-data environment to deliver an in-depth view of customers' data center infrastructure across the entire virtualized environment.

Benefits

"In order to maximize the value of our SaaS cloud for customers, we needed to get the best possible

service from our back-end servers, consume the least bandwidth and the best performance possible," said Mr. Au. "The Array product allows us to accomplish these goals with an easy-to-use, scalable and high-performance platform. And we've had absolutely no issues since deploying it over a year ago."

Summary

Through the APV Series, with service and support from aXcelerate Networks, Uila has positioned its SaaS service to serve a growing roster of customers, now and in the future, with the performance, availability and security they need. The APV1600 offloads compute-intensive SSL processing from the Uila application servers – freeing them to focus on their big-data workloads – and distributes traffic among servers to ensure high performance and availability. In addition, security is assured through 2048-bit SSL encryption, as well as WebSockets.

