A10 THUNDER ADC ENABLES IMPROVED PROXY SERVER PERFORMANCE GIVING CLOUD SERVICE USERS A COMFORTABLE USAGE ENVIRONMENT

“Complicated Office 365 operations have been simplified through automation thanks to the provision of API.”

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COMPANY
Softbank Corp.

INDUSTRY
Service Provider

A10 SOLUTION
A10 Thunder ADC

CRITICAL ISSUES
• Proxy performance deteriorates due to surge in customer use of cloud applications.
• Mounting on individual SIs is costly and takes longer to deliver, so it does not meet the customers’ budgets or schedules.

INSTALLATION ADVANTAGES
• Lower cost to expand customers’ proxy servers with quick and inexpensive service.
• Significant contribution to the automation of complex setup changes through API connection and reduced operational costs.
Softbank Corp. provides both fixed-line and mobile communication services and Internet connection services as a core company within the Softbank Group.

The company offers a variety of gateway services to customers who use corporate network and VPN services. A10 Thunder® ADC—a next-generation application delivery controller built by A10 Networks (hereinafter, A10)—has been adopted as the platform for this gateway service proxy function.

**ISSUE: DEGRADED PROXY PERFORMANCE DUE TO SURGE IN USE OF CLOUD APPLICATIONS**

Guided by its management philosophy, “Information Revolution – Happiness for Everyone,” the Softbank Group aims to be a corporation that people everywhere consider essential. Under this philosophy, it operates various businesses, such as the smartphone-centric mobile business, Internet operations for “Softbank Hikari”—a robotics operation that's exemplified by “Pepper,” its renowned humanoid robot—and its “Softbank Power” business that provides energy.

Accordingly, Softbank Corp. deploys a wide range of services over and above its core mobile and Internet-related services. These services are indispensable for business and include mobile, audio/fixed-line telephones, network/VPN, cloud, security, data center and digital marketing—not only for individuals, but also for corporate customers.

In the case of network/VPN services for corporate customers, a variety of network services including closed network services, such as IP-VPN and wide-area Ethernet and network equipment monitoring, are available. Kunihiko Iwaki, (Manager, Service Planning Section I, Solution Service Department, Network Service Control Department, ICT Innovation Division) noted, “Recently, the use of cloud applications, such as Office 365 and Suite (formerly Google Apps for Work), has increased rapidly,” due to a surge in the number of network service users. As a result, a new problem has been the reduced performance of the proxies that function as gateways. Mr. Iwaki explained, “When using services that require many sessions, such as Office 365, there is an Internet bottleneck since all access passes through the proxy, and this can affect performance. Thus, we needed a new system to improve performance.”

**VERIFICATION: IMPROVED PERFORMANCE AND ESTABLISHED SDN/NFV BASED ON API**

In reality, Softbank Corp. needed a system that would reduce the load on the proxy resulting from the rapid uptake in cloud application usage, while being integrated for each individual client.

Many corporate users install security functions, such as Web filtering as a gateway, and reasonable specifications are required even if only to process these. Additionally, processing cloud application sessions affords its own set of performance difficulties. Installing many new servers in order to speed up the processing sessions may not be possible within the clients’ budgets. "We received many requests to provide high-performance proxies as a gateway service rather than installing individual ones for each company to offload processing," added Mr. Iwaki.

Softbank Corp. turned its attention to the A10 Thunder ADC offered by A10 Networks. They had already installed these as load balancers, so they have become familiar with using the command line functions. Kentaro Someya (Cloud Engineering Control Department, ICT Innovation Division) commented, “I had heard that the A10 Thunder ADC performed well even as a proxy from an in-house engineer who had installed them for individual integrations.” It was also well suited to providing this service for multiple clients as it is equipped with a multi-tenant function based on its application delivery partition (ADP).

It also supports fully open API, another point of concern for Mr. Someya who explained, “We have been providing SDN and NFV services to expand virtual technology into the network domain, so having an API that can be linked externally was very important. A10 Thunder ADC's incredible flexibility was an important consideration for us, because the API on many other network devices proved insufficient.”

After the actual verification period, A10 Thunder ADC was selected as the platform for proxy functions to add further value to Softbank Corporation's network services.
SOLUTION: EXCELLENT PERFORMANCE ABETS MULTIPLE FUNCTIONS, INCLUDING CLOUD PROXY

A10 Thunder ADC is a next-generation application delivery controller (ADC) mounted with advanced security functionality, such as Web Application Firewall (WAF) and DDoS protection, while affording increased application speeds and availability.

In addition to these functions, A10 Thunder ADC can also be used as a cloud proxy solution that solves issues arising from cloud application sessions. Sorting traffic in accordance with the address domain name ensures optimal performance for cloud applications and networks.

These diverse functions are supported by the exemplary performance of the shared memory architecture of our unique OS, the “ACOS Harmony Platform.”

This OS incorporates fully open API and enables flexible cooperation with virtualizations in network domains, such as SDN and NFV.

INSTALLATION ADVANTAGES: REDUCED LEAD TIME AT ABOUT HALF THE COST THROUGH SERVICE IMPLEMENTATION

Currently, A10 Thunder ADC operates as a proxy function provided as a network service for corporate users, and normal traffic via the Internet is redirected to a server that performs Web filtering so that traffic for specific cloud applications, such as Office 365 and Suite, can be accessed directly. The proxy itself has been rendered redundant, and an environment that ensures high availability has been prepared.

Moreover, their recent adoption of A10 Thunder ADC has enabled domain information for Office 365, which is frequently added to or changed, to be automatically reflected to the proxy via the API, which has significantly reduced the load for manual maintenance.

Mr. Someya was highly impressed not only with its functionality and performance, but also the diligent support, such as direct provision of setup information and knowhow from A10 regarding traffic sorting to Office 365. He said, “We received specific setup examples, which we referred to while preparing and fine-tuning the environment. An engineer also provided careful support, and we appreciate it very much.” A manual is also available, and the API operation can be clearly understood, which also contributed to its smooth installation and efficient operation.

This setup has been highly evaluated by Mr. Someya, who said, “Complex procedures have been extensively simplified through automation thanks to the APIs provided.” Also, man-hours have been significantly reduced, with costs cut by about half compared to the previous environment that was set up on an individual basis, while lead times have been reduced by a couple of months. Mr. Iwaki commented, “We were able to offer the services demanded by our clients inexpensively thanks to A10 Thunder ADC.”

Figure 1: Communication path for secure Internet access

Note: Cloud proxy/SWG feature is supported only on Thunder SSLi or CFW platform from ACOS version 4.x or later.
FUTURE DEPLOYMENT: STRIVE TO ADD FURTHER VALUE TO GATEWAY SERVICES

Softbank Corp. plans to implement new functions with even greater value by identifying customers’ needs in the gateway area while submitting proposals to customers to further bolster the use of proxy functions that are currently included. For example, SSLs need to be visualized for security checks. However, inclusion within next-generation firewalls or suchlike is expensive, so mounting in the gateway area is also considered as a possibility. Further service enhancements are anticipated through expanded use of A10 Thunder ADC.

ABOUT A10 NETWORKS

A10 Networks (NYSE: ATEN) provides Reliable Security Always™ through a range of high-performance solutions that enable intelligent automation with deep machine learning to ensure business critical applications are protected, reliable and always available. Founded in 2004, A10 Networks is based in San Jose, Calif., and serves customers globally with offices worldwide.

For more information, visit: a10networks.com or tweet @A10Networks.

ABOUT A10 NETWORKS, K.K.

A10 Networks, K.K. is the Japan office of A10 Networks. It holds a mission to deliver innovative application networking solutions, while proactively incorporating feedback and requirements from customers in the local market.

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