



JUNIPER APSTRA SELECTED FOR YAHOO! JAPAN'S CLOS FABRIC NETWORK INFRASTRUCTURE

Summary

Company:

Yahoo! Japan Corporation

Industry:

Service Provider

Business Challenges:

Yahoo! Japan needed to manage and operate large-scale Clos fabric networks with a small number of staff. It also needed support for a multivendor data center environment.

Technology Solution:

- Apstra System

Business Results:

- Substantially streamlined data center network management and operations
- Detect network issues easily and quickly

Yahoo! Japan Corporation is a leading Internet service provider in Japan offering a wide range of services, including Japan's largest portal site Yahoo! Japan. Yahoo! Japan's vision is to become a "data company."

A network infrastructure that can carry massive amounts of data traffic is essential to realizing this vision, and Yahoo! Japan aggressively researches and deploys new networking technologies. According to Mr. Kenya Murakoshi, Senior Manager, System Group, Site Operations Division, Infrastructure Technology Group, "Yahoo! Japan Corporation has had its eye on Clos fabric networking technology for quite some time."

"At Yahoo! Japan Corporation, the east-west traffic between servers and devices within a data center has been growing more than the traffic between the data center and the Internet," says Mr. Murakoshi. "Other leading Internet service providers outside of Japan deploy Clos fabric networks that allow a flexible scale-out expansion in order to successfully address this challenge. Yahoo! Japan Corporation is following their path."

The company already adopted a Clos fabric as part of a Hadoop data analysis infrastructure and plans to adopt it in other networks in the future. Yahoo! Japan needed to make full use of its flexible, scalable infrastructure, respond rapidly to the expansion of network equipment, and simplify the operation and maintenance of its ever-increasing devices.

These objectives, along with the need to scale the network to meet the massive amount of data generated by business growth, made it clear that it was impossible to respond to the need with only the current limited number of staff.

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- Kenya Murakoshi, Director, System Group, Site Operations Division, Infrastructure Technology Group
Yahoo! Japan Corporation

An Ideal Solution for a Multivendor Clos Fabric Network

Yahoo! Japan asked, "Is there a way to make the design, build, and operation of a Clos fabric somehow more efficient?" After extensive research and evaluation of many technologies and products, Yahoo! Japan selected Juniper Apstra System, a multivendor intent-based networking software solution as the answer to its question.

Yahoo! Japan Corporation's Mr. Satoshi Tshata, Network Development Leader, Infra Tech 1, Site Operations Division, System Management Group, explains the value: "The Juniper Apstra System enables extensive automation and simplifies a Clos fabric network and earned high marks for design, build and operations. It was compelling to us to leverage the best practices of leading companies. Other products had some similar capabilities to Apstra, but Yahoo! Japan Corporation runs a multivendor environment, including white-box products, so Juniper Apstra's hardware-inclusive solution was a very good fit for our needs."

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Yahoo! Japan began the validation of Apstra with little delay. It created a small Clos fabric network within the company and deployed the Apstra software to validate its performance and usability in all aspects of Yahoo! Japan's operations.

Mr. Kai Fukazawa, Acrapio, Inc., who is currently assigned to Yahoo! Japan Corporation's US subsidiary, recalls, "Juniper Apstra System and intent-based analytics simplify Yahoo! Japan Corporation's network design, build, and operations processes by abstracting the network configuration with 'intent.' This was a new concept to us, but once we became familiar with it, the benefits were clear. Whenever we had questions, we made inquiries to Juniper Apstra's support desk through the distributor. Juniper Apstra provided timely responses and the validation went very smoothly."

Simplify Network Design, Build, and Operations with a Short Time to Deployment

After a two-month-long validation test, Yahoo! Japan formally selected Juniper Apstra, which was first deployed in the network infrastructure supporting Hadoop clusters for companywide data analytics. The first phase of deployment was about 30 network devices (500 nodes), which were migrated from the legacy network to the new Apstra Clos fabric network.

Mr. Kakuya Ando of Yahoo! Japan Corporation's Infra Tech 1, Site Operations Division, System Management Group says that the introduction of Apstra significantly reduced the labor involved in network construction and operation. "All you need to do is to connect the switches to the network, and Juniper Apstra automatically configures them," he says. "The efficiency of network construction and device replacement operations is greatly improved and we can easily replicate it. What used to take several days is now completed in tens of minutes. In addition, even if you make a mistake, for example with cabling, thanks to Juniper Apstra's intent-based analytics telemetry, you can grasp the problem with a simple glance at the GUI."

Mr. Murakoshi speaks highly about the benefits of the Juniper Apstra deployment, saying that Apstra's capabilities brought agility to Yahoo! Japan's network design, build, and operations. "Because the entire network management operations are now streamlined, we are able to focus more on other value-added work. We are going to continue leveraging Apstra's new capabilities and expand the adoption of Juniper Apstra at Yahoo! Japan Corporation."

For More Information

To find out more about Juniper Networks products and solutions, please visit www.juniper.net.

About Juniper Networks

At Juniper Networks, we are dedicated to dramatically simplifying network operations and driving superior experiences for end users. Our solutions deliver industry-leading insight, automation, security and AI to drive real business results. We believe that powering connections will bring us closer together while empowering us all to solve the world's greatest challenges of well-being, sustainability and equality.

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