

Yahoo Japan Corporation uses Keysight's NTO Series Extract Traffic Data and Boost Network Security

Yahoo Japan Corporation is one of the largest providers of Internet services (including search engine, online shopping, auction, and news) in Japan. Its services are supported by hundreds of thousands of physical and virtual servers running in several data centers located in Japan and overseas. This massive computer network is exposed to cyber-attacks on a daily basis. To keep track of and analyze the incoming attacks in detail using IPS (Intrusion Prevention System), the company opted to use Keysight's network packet broker (NPB), a portfolio of network visibility solutions featuring an intuitive GUI.

Aggregate The Massive Traffic And Pass Only The Required Data to the LPS

Being Japan's largest provider of Internet services means being subject to the most cyber-attacks in the country. According to Mr. Yusuke Tatsumi (Network Security, Infrastructure Engineering Department, Site Operation Division), in charge of Yahoo Japan Corporation's security operations, "Security vendors would be shocked by the sheer volume of the cyber-attacks we receive."

As a result, the company wanted to develop a strong infrastructure that could remain unaffected by such massive cyber-attacks. At the same time, it wanted to establish a system to visualize the source and nature of the incoming attacks and respond to them quickly.

"We strive to provide our in-house engineers, with an environment that allows them to concentrate on developing new services without being distracted by cumbersome things like IP addresses and network security," said Mr. Ryutaro Inoue (Manager, Network Security, Site Operation Division, System Management Group, Yahoo Japan Corporation).



Company:

- Yahoo Japan Corporation

Key Issues:

- Massive daily exposure to cyber-attacks required a way to better monitor and analyze traffic to bolster its network security

Solutions:

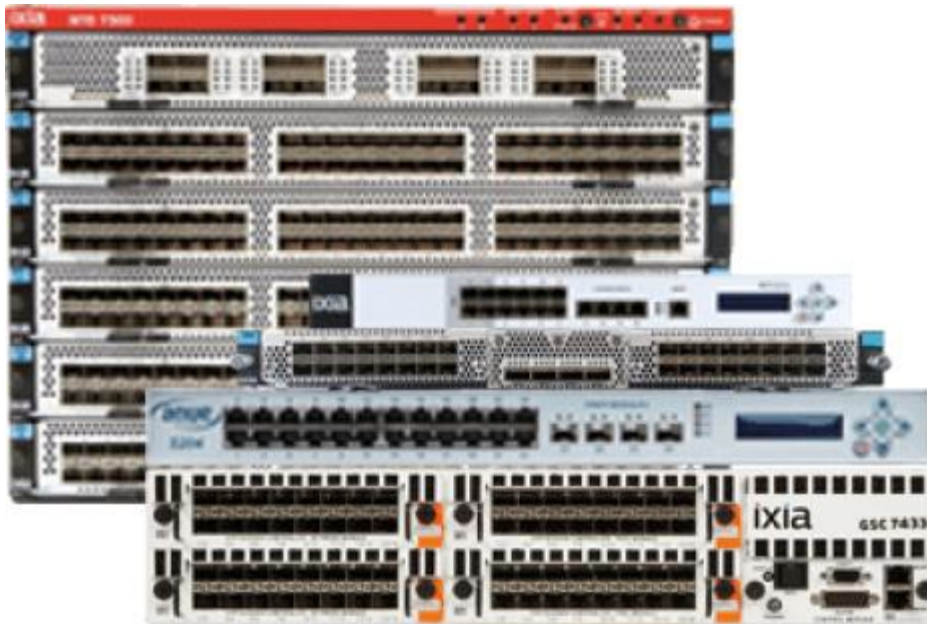
- Vision 5288

Results:

- Easy extraction of required traffic data from complex infrastructure for better security
- Ability to constantly monitor traffic and instantaneously detect issues and troubleshoot

The first step was identifying the enemy. “As part of our efforts to enhance network security, we wanted to keep track of the different types of incoming cyber-attacks and respond to them on a routine basis. Previously, IP addresses were just about the only information we had available on the attacks. We therefore wanted to implement security devices such as IDS (Intrusion Detection System) and WAF (Web Application Firewall) to be able to keep track of the attacks in greater detail,” Mr. Inoue said.

Given the scale of Yahoo Japan Corporation’s network activity, it is impossible to monitor such massive traffic without a visualization solution that enables them to extract only the required traffic from the enormous data received by the network devices and aggregate and pass them on to the monitoring tool



Yahoo Japan Corporation set its eyes on Keysight’s NPB solution—a portfolio of network visibility solutions developed by Keysight.

Flexible Data Manipulation Via Intuitive GUI Plays A Key Factor Behind Product Adoption

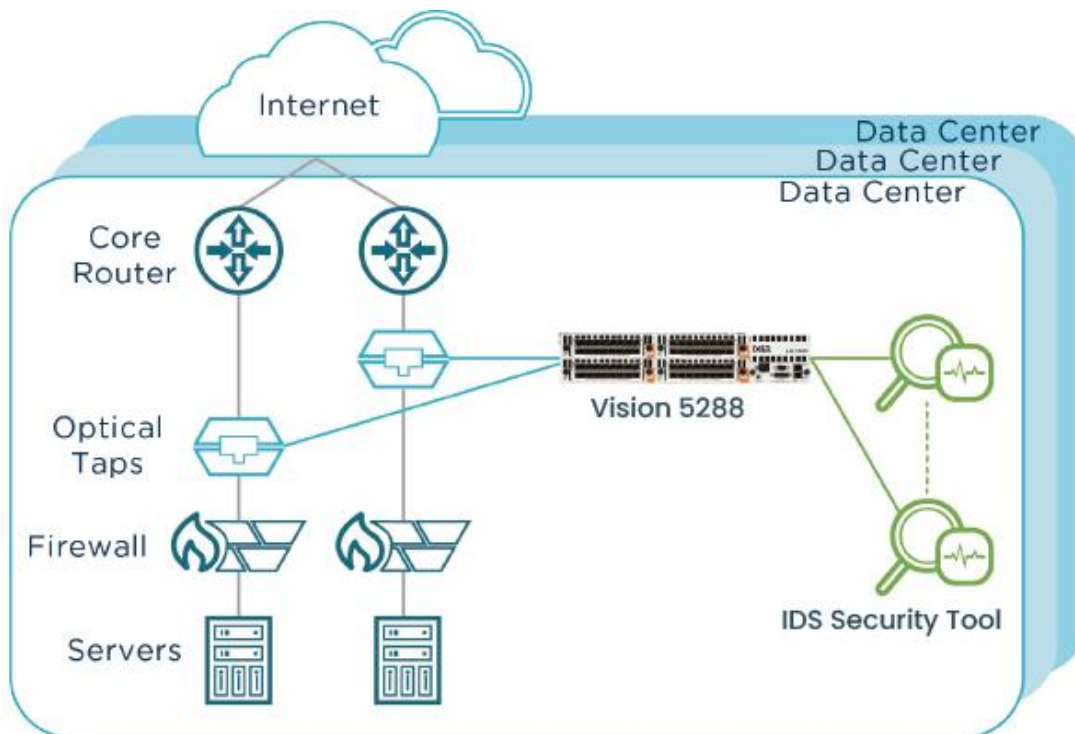
Adoption of the Keysight Vision series has enabled the company to establish a system that aggregates and extracts only the data matching specified criteria and passes it to the security device for detailed analysis and appropriate countermeasures.

The Keysight Vision series incorporates an out-of-band monitoring data filtering library that supports specifying of multiple criteria. This enables easy extraction of only the required traffic data from complex infrastructure configurations. This was one of the key factors behind Yahoo Japan Corporation’s decision to adopt the product. “We can import our network segment information into this library and expand it into a filter with great ease,” Mr. Tatsumi said. “It is also possible to export a library used on one Keysight NPB unit and import it into other Keysight NPB units. This is an extremely useful feature for a company like us with a very large network infrastructure.”

Yahoo Japan Corporation also tried other similar products for comparison prior to adopting the Keysight Vision series and, apart from its superior functionality, they discovered another strong advantage: intuitive and user-friendly operability. Competitors' products are typically offered in the form of a web-based control panel. While a web-based control panel offers the convenience of being able to access from a browser, frequent screen transitions can be a stress-inducing factor. In comparison, Mr. Inoue highly rates the superior user-friendliness of the Keysight Vision series: "We were able to start using the Keysight Vision series right away, without any special training. We use it at least once a day for unwanted monitoring data. It's extremely easy to use."

"A nice-looking GUI is a good thing, but as we later discovered, it also had a lot of operational advantages," Mr. Tatsumi adds. "Information such as for which line the tap is being used, which traffic is being collected/aggregated, and what kind of filter is being applied are expressed in an intuitive and easy-to-understand manner. We rarely make any configuration errors."

Yahoo Japan Corporation is constantly releasing new services and applications with its new slogan "BAKUSOKU" (explosive speed). More than anything else, high reliability is required of the network infrastructure supporting these services. "The infrastructure must not fail. That is the basic thing."



New Monitoring Solution

If it ever does, however, it is critical that we quickly get a grasp of the situation, make it known to everyone, and recover as fast as possible," Mr. Inoue says. In order to achieve this, a system that can keep constant track of the network traffic and instantaneously detect problems and/or errors is absolutely essential

Security Monitoring Supports Yahoo Japan Corporation's Highly Reliable Network Infrastructure

As part of meeting this challenge, “We are hoping to build a system that can constantly present each in-house service personnel with graphs showing the attacks that are currently being carried out against them, instead of the overall attack tendencies— based on the traffic log collected using the Keysight Vision series and examined by the IDS,” says Mr. Inoue.

The number of virtual servers is expected to eventually overtake that of physical servers, and Mr. Inoue feels that one future challenge will be tracking and monitoring traffic among the virtual servers.

“I believe the importance of network security will continue to grow, and network visibility will become ever more critical,” Mr. Inoue said. Yahoo Japan's network infrastructure is supported by the day-to-day security monitoring using Keysight's technologies.

Learn more at: www.keysight.com

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: www.keysight.com/find/contactus

