



Yahoo Japan Corporation uses Ixía's NTO series to visualize their computer network security, extracting necessary traffic data via an intuitive GUI

Yahoo Japan Corporation is one of the largest providers of Internet services in Japan. The company's massive computer network is exposed to cyber-attacks on a daily basis. They opted to use Ixía's Ixía Net Tool Optimizer, a portfolio of network visibility solutions featuring an intuitive GUI, to keep track of and analyze the incoming attacks in detail using IPS (Intrusion Prevention System).

Yahoo Japan Corporation is operating an Internet portal site "Yahoo! JAPAN" offering services including search engine, online shopping, auction, and news portal services. The PC and smartphone versions of the portal site receive approx. 60 billion and 27.3 billion page views a month, respectively.

Yahoo Japan Corporation's services are supported by the hundreds of thousands of physical/virtual servers running in several datacenters located in Japan and overseas. "We strive to provide the end-users, which in this case are 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), who takes part in the network server operations.

Aggregate the massive traffic and pass only the required data to the IPS

Being Japan's largest provider of Internet services also 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."

Developing a strong infrastructure that can remain unaffected by such massive cyber-attacks and, at the same time, establish a system that enables Yahoo Japan Corporation to visualize the source and nature of the incoming attacks and respond to them quickly.

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 IPS (Intrusion Prevention System) and WAF (Web Application Firewall) to be able to keep track of the attacks in greater detail," Mr. Inoue said.

As mentioned above, however, Yahoo Japan Corporation's network infrastructure has an extraordinary scale, and a commensurate volume of the network traffic. Realistically, 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.



Mr. Ryutaro Inoue
Manager
Network Security
Site Operation Division
System Management Group
Yahoo Japan Corporation



Company

Yahoo Japan Corporation

Market

Internet advertising, e-commerce, membership-based online services, etc.

Key Issues

Keeping track of and analyze in detail the cyber-attacks targeting Japan's largest Internet services on a daily basis using IPS (Intrusion Prevention System), Yahoo Japan Corporation needed to aggregate and extract the relevant traffic data.

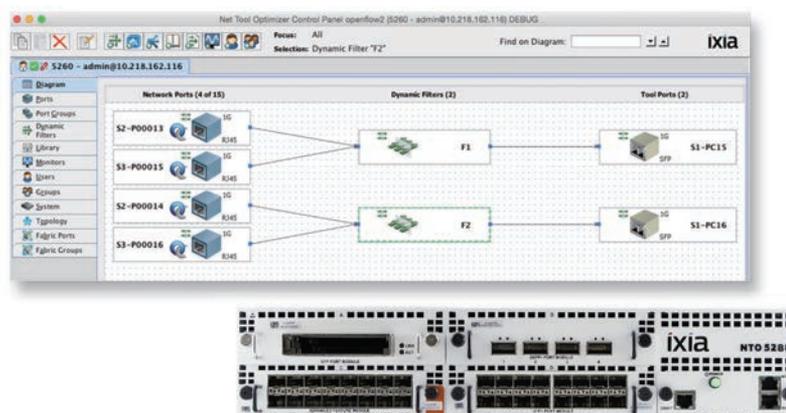
Results

The NTO solution's filtering function enabled Yahoo Japan Corporation to constantly pinpoint, extract and closely examine the required data from the traffic coming through the massive computer network.

The NTO's intuitive GUI enabled Yahoo Japan Corporation to appropriately configure and operate the Ixía NTO without any special training.



Mr. Yusuke Tatsumi
Network Security
Infrastructure Engineering
Department
Site Operation Division
Yahoo Japan Corporation



Yahoo Japan Corporation set its eye on Ixia's NTO solution a portfolio of network visibility solutions developed by Ixia. This product already had an extensive track record and reputation for reliability outside Japan, so the company began conducting verification testing of the product in late 2011. In February 2012, after verifying that the product can serve the intended purpose, Yahoo Japan Corporation adopted the Ixia NTO 5236 network monitoring switch, with 10GbE architecture for security monitoring operations using IPS. Subsequently, in the end of March 2014, Yahoo Japan Corporation introduced the upper model Ixia NTO 5288 with support for 10/40/100GbE in line with their network expansion.

Flexible filtering via intuitive GUI plays a key factor behind product adoption

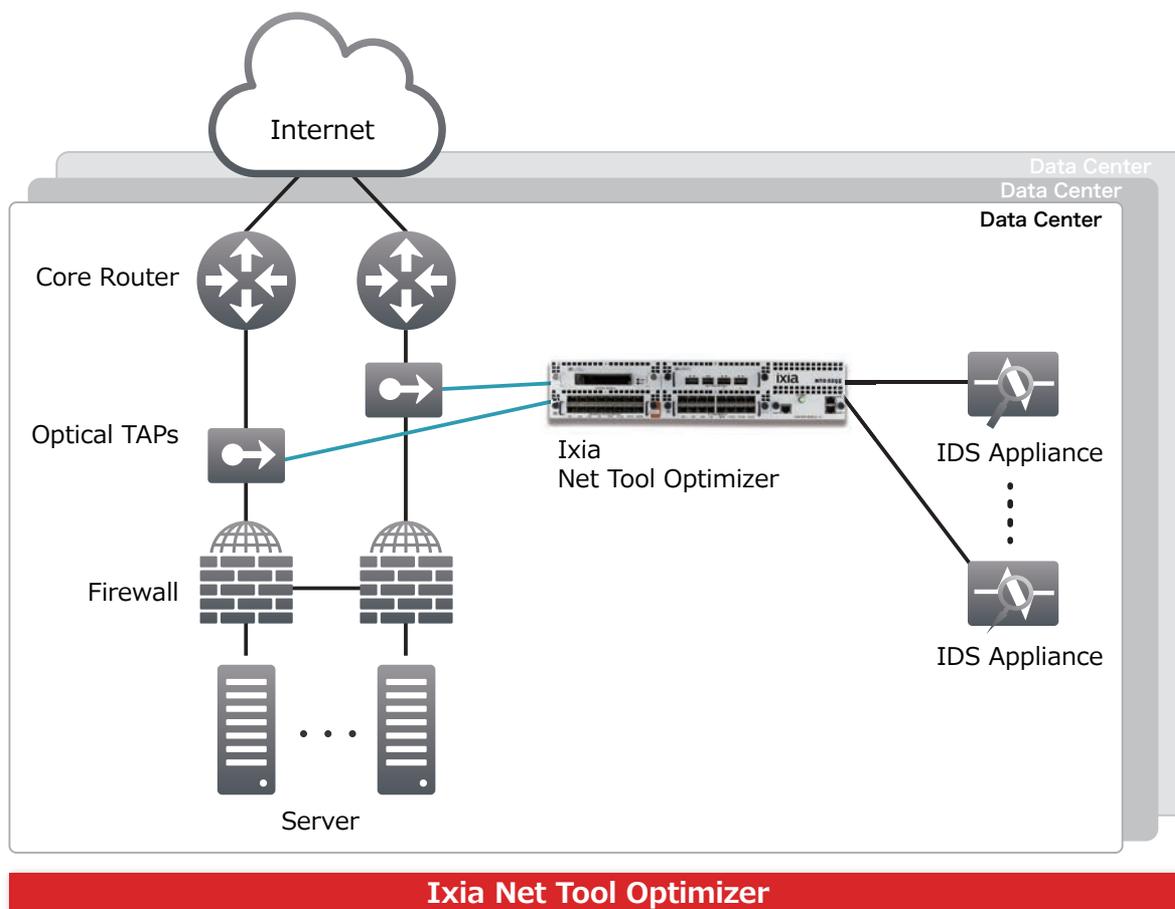
Adoption of the Ixia NTO series has enabled Yahoo Japan Corporation to establish a system that aggregates and extracts only the data matching specified criteria, and passes it to the security device for detailed analysis and appropriate countermeasures.

The Ixia NTO series incorporates a filtering library that supports specifying of multiple criteria. This library 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. "For example, we can import Yahoo Japan Corporation's 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 Ixia NTO unit and import it into other Ixia NTO units. This is an extremely useful feature for a company like us with very large network infrastructure."

Yahoo Japan Corporation also tried other similar products for comparison prior to adopting the Ixia NTO series and, apart from its superior functionality, they discovered another strong advantage of the Ixia NTO series: 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 Ixia NTO series: "We were able to start using the Ixia NTO series right away, without any special training. We use it at least once a day for filtering the network traffic. 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 make 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. 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 Ixia NTO series and examined by the IPS," says Mr. Inoue.

His future perspective also includes keywords such as virtualization and automation. 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 monitor traffic among the virtual servers.

Mr. Tatsumi places high expectations on Ixia's future product development: "This might be similar to the concept of Software Defined Infrastructure (SDI), but it would be great if the product could automatically detect, filter and closely examine any 'dangerous or potentially dangerous networks'."

"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 persistent day-to-day security monitoring using Ixia's technologies.

Ixia Worldwide Headquarters

26601 Agoura Rd.
Calabasas, CA 91302

(Toll Free North America)
1.877.367.4942

(Outside North America)
+1.818.871.1800
(Fax) 818.871.1805
www.ixiacom.com

Ixia European Headquarters

Ixia Technologies Europe Ltd
Clarion House, Norreys Drive
Maidenhead SL6 4FL
United Kingdom

Sales +44 1628 408750
(Fax) +44 1628 639916

Ixia Asia Pacific Headquarters

21 Serangoon North Avenue 5
#04-01
Singapore 554864

Sales +65.6332.0125
Fax +65.6332.0127