

Square Enix Co., Ltd.



Cisco Nexus Employed in the Network Infrastructure of the New Head Office High Operability and Stability Provided by Utilizing FabricPath

Installation Solution

- Cisco Nexus 7009
- Cisco Nexus 5548UP (FabricPath)

Issues and cases for review prior to installation

- A high-capacity network is required in game development. The previous network also had 10Gbps ports on the core switch, but the new network required bandwidth of tens of Gbps on a distribution level.
- Operability and stability were also essential requirements. The reason for this is that development is interrupted if the network stops.

Benefits of Installation

- By using the Cisco Nexus 7009 in the core and the Cisco Nexus 5548UP for distribution, it was possible to create a wide-bandwidth high-performance network able to provide speeds of up to 100Gbps on a distribution level.
- Utilizing FabricPath made it possible to handle everything from core to distribution as a single giant core.
- Network stability was also increased.



Square Enix Co., Ltd. relocated its head office in October 2012 and built the network in the new head office using the Cisco Nexus Series. The decisive factor was support for FabricPath. This made it possible to create a scalable Layer 2 network, and provide simple and versatile operation. Its excellent performance and stability were also highly valued.

Details of installation - Installation process

New head office network required additional speed A high level of operability and stability were also essential requirements

Square Enix Co., Ltd. is best known as the developer of the two epic RPG series Final Fantasy and Dragon Quest, but also provides much other high-quality entertainment content. The company relocated its head office in October 2012. To coincide with the mover, the IT environment was rebuilt and the internal network renewed.

"The previous network was created around a decade ago, and as the amount of data handled was high from the outset, the core switch was equipped with 10Gbps ports," reflected Tatsuya Mori, Manager of the Information Systems Department of Square Enix Co., Ltd. In game production, large volumes of content are downloaded every day, and the amount of data has continually increased every year. Recently, the amount of data downloaded by each developer every morning is as much as several to tens of gigabytes. Because of this, it was explained that it was essential to provide ports handling tens of gigabytes in distribution to each floor.

Meanwhile, "improvement of operation and administration was also an important issue," indicated Kei Tasaka, of the Information Systems Department of Square Enix Co., Ltd. Network requirements for game development differ in each project, and it is necessary to respond flexibly. However, there was a mixture of devices from numerous vendors in the previous network, and much effort was required for configuration changes. It was also difficult to determine the cause when a fault occurred. Faults with undetermined causes occurred on numerous occasions and this interrupted development.

Cisco Nexus was employed to resolve these issues. The main point was the existence of FabricPath. This is because the use of this technology makes it possible to create a network providing both the simplicity of Layer 2 and the reliability and scalability of Layer 3.

"The new network needed to provide the bandwidth required by developers and stability of not interrupting development work. Cisco Nexus is employed in data centers used for game distribution, etc. and it offers sufficient performance and stability. Cisco Nexus with



Tatsuya Mori

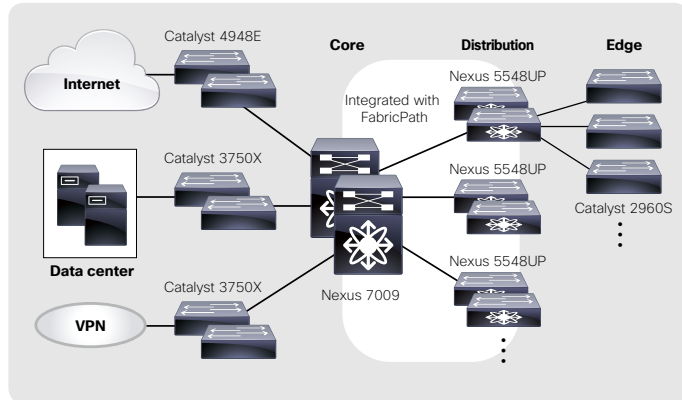
Manager
Information Systems
Department
Square
Enix Co., Ltd.



Kei Tasaka

Information Systems
Department
Square
Enix Co., Ltd.

Network configuration diagram



FabricPath can provide a high-speed network with an eye to 100Gbps at the distribution level, and was also valued for the improved operability due to the overall simplicity of the network. The decision to employ Cisco Nexus was made in January 2012. Creation of the network in the new head office will be complete in August, and it will go into full-scale operation in September. IP phones have also been installed in the new head office, and Cisco products have also been adopted here.

Results of the installation - Future development
Administration made simpler and more flexible by FabricPath
Future use for game distribution also considered

Square Enix Co., Ltd.

SQUARE ENIX.

Location

Shinjuku East Side Square
 6-27-30 Shinjuku, Shinjuku-ku, Tokyo

Established

October 2008

Capital

1.5 billion yen (As of March 31, 2013)

Employees

1,814 (Non-consolidated, as of March 31, 2013)

Net sales

71.329 billion yen (Fiscal year ended March 2013)

One of Japan's leading game developers. The company was formed in a merger of Enix Corporation and Square Company, Limited in April 2003. Its prominent titles include major RPG series "Final Fantasy" and "Dragon Quest." With a corporate philosophy of "To spread happiness across the globe by providing unforgettable experiences," the company continues to provide high-quality entertainment content.

In the new head office network, the Cisco Nexus 7009 is used for the core, and the Cisco Nexus 5548UP is used for distribution, with the core and distribution integrated using FabricPath. Each Cisco Nexus 5548UP is connected to the Cisco Nexus 7009 at 10Gbps, and the bandwidth per floor is up to 100Gbps. The Cisco Catalyst 2960S is used for the edge switches, allocating 1Gbps×4 ports to each seat, with a total of 14,000 edge ports. This is the first case in which FabricPath has been installed in an ordinary enterprise, but the network is extremely stable and there has been no trouble at all. Performance is also high, and users have commented that "It is easier to use," says Mori.

It is also easier to set up a VLAN for each project. This is because everything from the core to each floor's distribution can be treated like a single large core. "If a configuration command is entered once, the results are reflected in all switches included in the FabricPath," says Tasaka. He says it is like the command entered "seeps" throughout the entire network.

Port traceability has also improved. In the game development workplace, it is common for game consoles under development to be connected, and there is a high risk of faults caused by bad MAC addresses, and broadcast storms to occur. In the past, it took time to identify on which port the problem was occurring, but now everything is visible down to the distribution port level, and it is easy to determine which area on which floor caused the problem.

It is also expected to reduce the need to stop the network when performing maintenance. This is because traffic on switches subject to maintenance can be replaced with a path on another switch. There are plans to stop the network for large-scale maintenance scheduled for June 2013, but it is highly probable that subsequent maintenance can be carried out without interrupting development work.

"I feel that the concept of creating a next-generation network with FabricPath was right," says Mori. Consideration is also being given to then use of FabricPath in data centers used for game distribution and the networks used for new projects. For example, "there is a lot of intercommunication in MMORPGs (Massively Multiplayer Online Role-Playing Games), and a large Layer 2 network is required. I believe FabricPath is the perfect solution for meeting such requirements."

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The data described herein is current as of June 2013.

The specifications described herein are subject to change without notice.



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