Network Supports 40 Gigabit Ethernet with Cisco Nexus® 9000 Series Switches for Development

Customer Case Study

EXECUTIVE SUMMARY

Customer Name: Square Enix

Industry: Service

Location: Shinjuku-ku, Tokyo, Japan

Number of Employees: 2022 employees

Business Challenge

- Due to the increase in volume of data during title development, the load on the network needed to be increased.
- Due to the demands from development, build a system environment that would act as the new foundation within a short period of time.
- While considering the restrictions on the facilities of the data center, performance and cost-effectiveness needed to be increased.

Solution

- Cisco Nexus 9000 Series Switches
- Cisco QSFP BiDi Transceiver

Business Results

- Networks, servers, and storage were increased, which created an environment where development business can progress smoothly.
- Using Cisco QSFP BiDi Transceiver, a network compatible with 40 Gigabit Ethernet was built while using the facilities of the data center in a better way. Cost-effectiveness was also increased.

Square Enix is known for role-playing game series, such as “Final Fantasy” and “Dragon Quest,” which received tremendous response from players all over the world. This company continuously strengthens its in-house environment (servers and networks) to support the increase in processing capacity and high-definition (HD) image data. Square Enix is enhancing its servers and storage, and is constructing a broadband network that connects them. The same firm is using Cisco Nexus 9000 switches. A stable foundation for supporting daily development operations is being implemented, which is more cost-effective.

Business Challenge

To support transactions and the increasing voluminous data of development

To increase servers, storage, and the base network

At Square Enix, the necessity of strengthening the network, storage, and servers was necessary to support the ever-increasing data and processing capacity along with the introduction of new game platforms. Due to the indoor game console PlayStation 4, the data capacity increased more than the existing capacity and the demand from the development department became stronger. The company decided that a 10 Gigabit Ethernet environment would need to be the standard for its base network for improving the performance of the servers and the corresponding 10 Gigabit Ethernet network, in addition to enhancing storage. As a result of the comparative study, Square Enix decided to use Cisco Nexus 9000 switches. The implementation began March 2015. Tatsuya Mori, senior manager of Information Systems says,

“Data capacity increased by eight-fold when we switched from PlayStation 3 to PlayStation 4. In the previous environment, integrating such a large amount of data and processing was difficult and there was a strong need for building a solid base, so we expedited our investigation to find a solution for this issue.

With the current increase in equipment, expansion of data centers is also being executed on the surface of the facilities. There were some restrictions like the rounds of the optical fiber cables that were laid out and their physical range. There, the subject of building a new 40G supporting network came up. We went ahead with the initiative that included reconsideration of even the electric supply plan, and we raised money for the setup that we had accepted as our facility and then we selected the equipment to be used. Such was the flow of events."

Adoption of a network foundation that supports development environment

Cisco Nexus 9000 Series Switches

Cisco QSFP BiDi Transceiver

Network Solution

Selection of 10 Gigabit Ethernet supporting switches was made following the comparative analysis of all the products in the market. Hajime Tomon from Information Systems at Square Enix says,

"We accepted the proposal of the network module Cisco QSFP BiDi Transceiver as building the largest 40G network of 40G was extremely interesting. We understood that executing this project was a big benefit for this company as the module could be installed without any significant physical change in the facilities and environment of the data center, and the project also helped in reducing costs."

We have adopted various Cisco products in the network of the same company. But this time we didn't consider such details. We have handled this project with an impartial viewpoint as elements of this project are very different from previous projects. According to Tasaka Kei, Information Systems,

"From the beginning we were worried about our vendors since Cisco usually locks the vendors. But this time, Cisco considered the comparative analysis of all the switches supporting broadband and made fair decisions regarding the project based on multiple requirements such as cost, efficiency, and the effect on facilities and then started the project. The proposal of BiDi from Cisco is very advantageous for our company because it uses the optical cable standard OM3 (which was already installed at the data center) without any modifications."

Mori also gave his opinion regarding cost:

If we see the cost of ports and the density of ports supporting bandwidth, Cisco Nexus 9000 series is overwhelmingly superior. In this project, we gave out specific instructions to carry out an analysis based on such points."

Business Results

Execution of extremely stable and trouble-free base

Elimination of bottlenecks and improvement in overall performance

It was a short-term project, where the selection of the required products started in November 2014 and construction was completed by the end of February 2015. Mori thought back on the project and said that, along with fulfilling the requirements of the development department quickly, some requirements were difficult to meet and were postponed. He also says that during construction, Cisco helped the company immensely.

Mori says, "Cisco resolved issues very quickly, which was a strong aspect of their proposal. We were worried that adopting products from other manufacturers may take a long time. In that respect, Cisco is very proactive and provides quick support, and as such, Cisco Nexus 9000 series was the best choice."

Since the implementation of the product, there have been no troubles in its operation. Development hasn't experience any issues either. On the contrary, the solution helped reduce frustration at work. Development indicated that the work environment is up to expectations.

Tomon says, "There are no issues with operation; it does not require labor and is extremely stable.

In the past, there were instances where the location of bottleneck was unknown. But now, even if we use product to maximum capacity, it does not affect other processes, and we have experienced an overall improvement in performance by restoring servers and storage."

Now we are changing the traditional switches into broadband supporting Cisco Nexus 9000 Series Switches and analyzing whether the basic performance is improving. Similarly, we want to improve network configuration and reduce the number of physical installations, such as racks.

Mori says that he has high expectations for future proposals:

"I think some points make Cisco superior to other companies; Cisco products are simple and do not have a manufacturer-like image. Cisco develops technology which surprises engineers and has the feel of an entertainment company.

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