

Successfully Migrating to a Hyperconverged Infrastructure



Customer name

GREE, Inc.

Industry

Internet media business

- Games business
- Media business
- Advertising business
- Investment business

Location

Mori Tower, Roppongi Hills,
6-10-1 Roppongi,
Minato-ku, Tokyo

Number of employees

1,424 people
(group as a whole, as
of September 2017)

URL

<http://corp.gree.net/jp/ja/>

Business Challenge:

- Support numerous internal requests to improve the responsiveness of on-premises enterprise resource planning (ERP) system
- Reduce the burden of the data center for costs and maintenance operations of ERP
- Construct a higher performance virtual platform according to the company and business scale

Network Solution:

- The Cisco® HyperFlex™ was used as a virtual ERP platform
- The network configuration and cabling were dramatically simplified using standard installation virtual interface cards (VIC)
- The company completed construction in a short period of time, and through thorough verification work, achieved a higher level of system fault tolerance

Business Results:

- In addition to ERP, internal systems that were already virtualized could be migrated to the new platform to improve the internal work environment

Business challenge

GREE, Inc. is a comprehensive Internet company that operates gaming, media, advertising, and investment businesses. The company is committed to its mission of “making the world a better place through the Internet.” GREE aims to create more services with hidden potential in Internet environments, and by providing these services, it hopes to contribute to a freer and more efficient society.

GREE innovates regularly so that the system environment for its internal operations matches its business scale and size. It has established its internal operational platform using an independently constructed private cloud or an external public cloud service.

With system innovation carried out around 2013, an ERP system was constructed in an on-premises environment and installed in the data center. However, internally, there had been many calls for its improvement, pointing out problems such as responses when using it. For this reason, the company started a project in 2016 to innovate the ERP platform.

“The problem was that the data center the ERP system was placed in was far away. Traveling back and forth for maintenance support was extremely difficult,” said Toshiyuki Suzuki, GREE’s IT Infrastructure and Operations Manager. “There was also the problem that the usage fee was high compared to other data centers used for customer-oriented services. In this state, it was not possible to migrate to other centers or migrate to the cloud, and initially, the ERP staff started off by looking into virtualization. Additionally, the time to innovate platforms other than the virtualized ERP was also approaching. In these circumstances, we decided to merge both platforms into one and relocate the data center.”

Toru Kamidozono, a member of the IT Infrastructure and Operations team, discussed the approach to the new platform.

“Attempts were made to migrate areas other than ERP to the public cloud in advance, but when considering traffic or security, it was decided that there was no reason to rush migration to the public cloud,” he explained. “When innovating the ERP platform, the sizing increases, so it was judged preferable to integrate the existing private cloud environment into the ERP platform. We presented the requirements and requested a proposal from each company based on the fact we wanted a hyperconverged configuration that includes the network, and given that it would be used for a long time, we wanted to increase performance.”

“When we received the proposals from each company, the Cisco HyperFlex was introduced to us by Cisco, and this was the trigger for us adopting the system,” Kamidozono added.

Suzuki explained that there were no problems from a price perspective either.

“At first, the Cisco price seemed high, but most of the proposals by each company included system construction fees, and this made up a major portion of the quoted price,” Suzuki said. “When we analyzed the content, we saw that, although the hardware functions were similar, the Cisco solution seemed to be cheaper. Given both its cost merits and performance, we judged that it would be easier to understand it internally, so proceeded with selecting it.

“We think the main features and merits of the hyperconverged infrastructure are that we can construct it and operate it ourselves.”

“As a trustworthy manufacturer already verified, we did not need to think much about it, and could spend more time considering the things we wanted to achieve and the business itself.”

Toshiyuki Suzuki

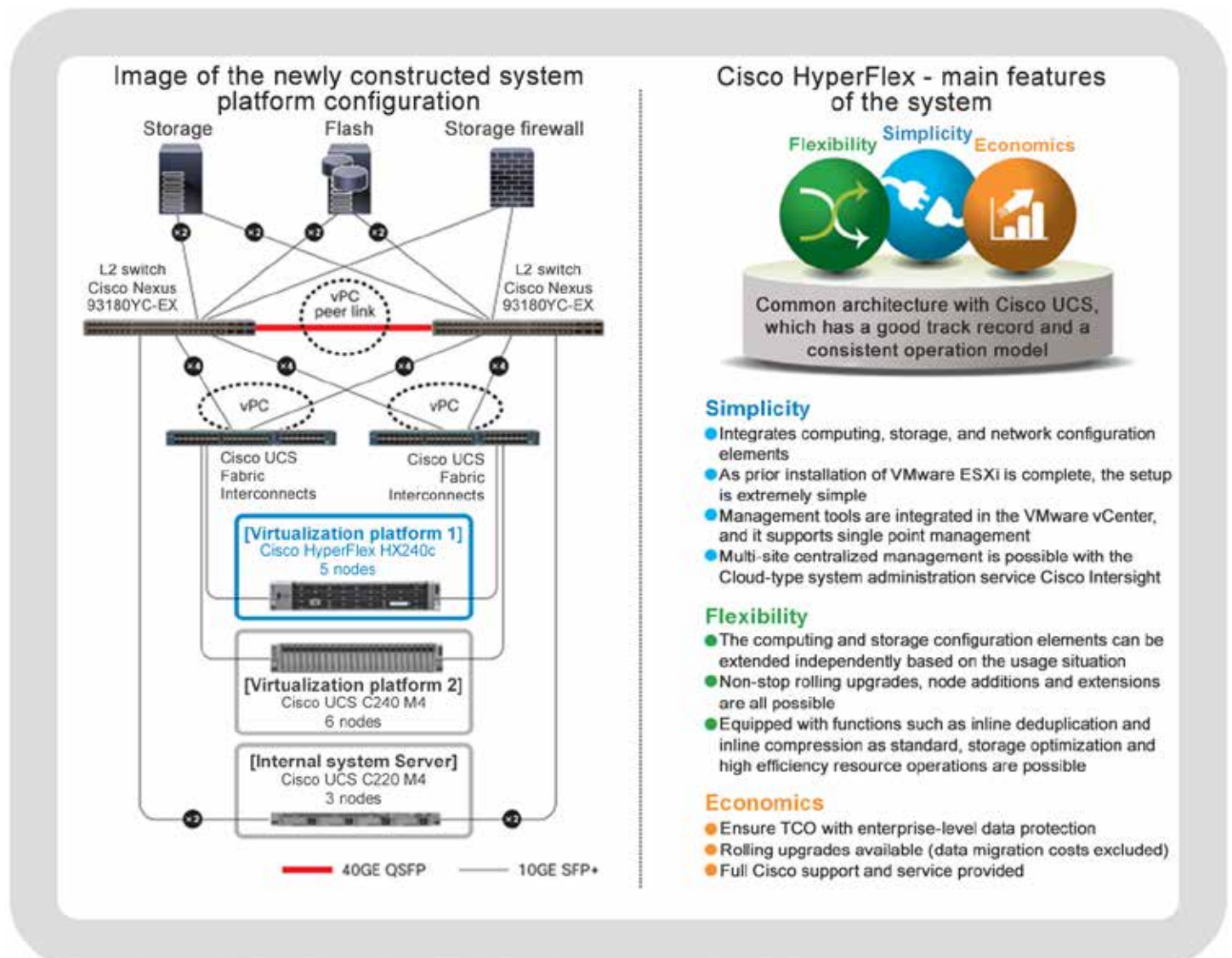
Manager, IT Infrastructure and Operations Team, GREE, Inc.

Network solution

Constructing a flexible system

The Cisco HyperFlex™, equipped with an Intel® Xeon® processor, is a hyperconverged infrastructure solution integrating the various components of computing, storage, and networks. This speeds deployment, which can be done in a matter of minutes, and simplifies management of the physical and virtual environments. This hyperconverged product, combined with the Cisco UCS server, makes it easy to construct systems with a high degree of freedom. In this instance, the company combined the Cisco HyperFlex and Cisco UCS as platforms operating different hypervisors.

“In our system infrastructure, we use a multivendor hypervisor,” said Kamidozono. “With this innovation, we considered that we wanted the environment for operating these to have a hyperconverged configuration. It was Cisco that provided a proposal based on hyperconverged products right until the end. The Cisco HyperFlex is configured as a set, including the network, and as there are virtually no restrictions on the network, it can be configured flexibly. When we looked at the Cisco proposal, we were able to make an outline of what kind of new internal system platform we wanted to design, and this was a major advantage.”



Simplifying the network with virtual interface cards

The Cisco HyperFlex are equipped with the Cisco UCS virtual interface cards (VIC) as standard. They can provide up to 256 virtual adapters (interfaces), allowing for a significant reduction in physically connected cables. According to Kamidozono, this makes cabling extremely easy, and simplifies the network configuration.

“If we constructed it with other companies’ products and prepared the necessary cables, there would be a large number of them. Now we only need two cables per box, and as these can be attached simply, we think the Cisco is truly superior,” he said.

Saving time while improving fault-tolerance verification

In GREE’s case, the Cisco HyperFlex was deployed in June 2017, and has been operating officially since September 2017. Suzuki said that, as construction was simple, it was finished in a short period, making more detailed verification possible.

“The internal system is small in scale compared to customer-oriented service platforms, and the robustness of the products themselves is important,” Suzuki explained. “This product was being used for the first time, and we performed hardware failure tests not carried out on other server configurations. Regarding construction as well, as we have knowledge of hypervisors, we felt it was so simple that we could do it ourselves after receiving hands-on training from Cisco.”

Because the team can do the verification work itself, Kamidozono gives the system high ratings. He says the network has also become much more reliable with the Cisco HyperFlex.

“We performed a thorough check to ascertain whether, with a redundant configuration, service stops would occur, and at what points failures would actually occur. We realized that the fault tolerance was at a level at which the meaning of the slogan was not betrayed. By using the hyperconverged configuration, the failure points of defective storage were eliminated, and this reduced the burden of maintenance.”

Business results

GREE successfully migrated the system to the new platform in January 2018. This helped improve performance and doubled the speed of some of the responses in the internal system (tools) for which migration was complete. The company also saw improved efficiency and faster backup work and night-time patch processing.

For More Information

See www.cisco.com/jp/go/hyperflex for details on the Cisco HyperFlex

Product list

- Cisco HyperFlex Systems (Cisco HyperFlex HX240c M4)
- Cisco Unified Computing System (UCS) C Series Rack Servers (Cisco UCS C240 M4 Rack Server, Cisco UCS C220 M4 Rack Server)

