

Building a Flexible Virtual Environment to host Multiple Gaming Websites

Nutanix Flow and Nutanix Files simplify operations and quickly support various requirements for each game title's website

BENEFITS

- High scalability enables expansion whenever the number of users increases
- Simple UI and high consolidation significantly reduce man-hours for operations
- Reduced hardware costs and workload for storage engineers as external shared NFS storage rendered unnecessary
- Micro-segmentation allows independent security for each website
- Significantly smaller workload during upgrades



"Starting small is possible with Nutanix, and with its superior scalability and distributed nature, we were able to build highly cost-effective infrastructure. We have been able to reduce costs by approximately 15-20%."

- Yasutaka Nakata, Manager of IT Infrastructure, Business Online Infrastructure System Group, Information Systems Division



"By deploying Nutanix Flow, network settings and support for the various requirements of each game title have become simpler. We are able to quickly respond even to sudden requests to construct environments for promotional websites, and the man-hours required for operations and maintenance have been reduced."

- Chen Hsuan Hua, IT Infrastructure, Business Online Infrastructure System Group, Information Systems Division

CHALLENGES

Square Enix, Co. Ltd. produces a range of content and services focused mostly on creative and innovative game software. The company's Game Development and Sales Division has delivered a string of hit game titles, including the well-known Dragon Quest Series and Final Fantasy Series. In addition to managing its existing titles, the company releases dozens of new games each year.

INDUSTRY

Gaming and publishing

CHALLENGES

- Frequent problems associated with private cloud platform
- Efficiency of micro-segmentation operations on hosting server for each game title
- High cost of hardware deployment and maintenance

SOLUTIONS

Nutanix Cloud Platform

- Nutanix AOS
- Nutanix Prism
- Nutanix Flow
- Nutanix Files

The majority of game consoles on the market are equipped with online gaming capability. Due to the need to deliver enjoyable gameplay and stable operations while supporting a rapidly growing number of users, Square Enix needs a platform that meets specifications in terms of scalability, processing power, and accessibility. A handful of engineers in the company's IT Infrastructure, Business Online Infrastructure System Group of the Information System Division handles everything from design to construction, operation and management of online gaming platforms and promotional websites for each game title.

With regular releases of new game titles, Square Enix's internal teams receive requests for website construction on multiple projects, which entails the construction of promotional website environments with a fast turnaround time. To handle these sudden requests promptly and to reduce server environment construction and operation costs, the company built a private cloud environment using an open-source service as the cloud platform software. However, the system did not operate satisfactorily as problems frequently occurred.

SOLUTIONS

To resolve this situation, the company turned its attention to the increasingly popular hyperconverged infrastructure, and chose Nutanix. Yasutaka Nakata, Manager of Business Online Infrastructure System Group, explains: "The reason we chose Nutanix is because it was simple to start small compared to other products on the market. By using Nutanix Prism, a web-based management tool that is included as a standard part of the package, we have been able to easily confirm or modify various settings for server, storage, and other components. Our aim was to get rid of complex operations, so we chose Nutanix."

Square Enix began by using four to five nodes in its initial deployment of Nutanix. While operating this in parallel with its existing private cloud infrastructure, the company gradually increased its number of Nutanix nodes, and in 2019 it also purchased software licenses for Nutanix Flow and Nutanix Files.

With multiple projects always in motion, the company has varying server requirements and loads for each game title. Multiple development companies were accessing its private cloud, and there were occasions when the development environment and production environment existed in a mixed manner. Then the company installed Nutanix Flow, enabling it to isolate the network for each environment and create greater efficiency in security management. "With Nutanix Flow, we are able to set micro-segmentation according to system requirements and load for each of the various projects and game titles. We deployed Nutanix so that we could construct the optimal network environment for each project, with the expectation that this would improve security," says Mr Nakata.

The company deployed Nutanix Files so that it can centrally manage content files of its website and perform storage environment design, construction, and operation within the group. "With the goal of storing our website's groups of content files, we thought that the native capabilities of Nutanix could fully meet file reading and writing as well as backup performance requirements, so we deployed Nutanix Files and got rid of our existing storage," explains Mr Nakata.

CUSTOMER OUTCOME

As to the effect of deploying Nutanix, Chen Hsuan Hua of Business Online Infrastructure System Group says: "With Nutanix Flow, we are able to flexibly modify network policy settings from the web-based management tool. The greatest benefit has been the ease of operation, which means we are able to immediately do what we want."

Prior to deploying Nutanix Flow, when dividing the network into separate virtual environments, we had manually modified firewall definitions. "Since deploying Nutanix Flow, we have become able to separate network segments with a single click from the web GUI, making operation and management simple," Mr Nakata says.

Using Nutanix Files has also greatly contributed to reducing operational man-hours and costs. "By deploying Nutanix Files and constructing shared storage within Nutanix, there is no longer a need to use existing storage," says Mr Nakata. "We have been able to reduce costs by 15-20%. Because we no longer need storage appliances, I think this is also greatly contributing to a reduction in man-hours for our company's storage engineers."

In addition, Square Enix gives high marks for Nutanix's support system. "No matter what questions we have, Nutanix support answers quickly and precisely, which has been extremely helpful. A huge number of people play our games. Nutanix support doesn't simply send us an email with a link to a knowledge base that can resolve the problem or issue; they provide us with suggestions such as setting modifications while considering the effect on users. This is something we really appreciate," notes Mr Chen.

NEXT STEPS

The company's most immediate goal is to consolidate its entire private cloud platform, which has been used for web hosting, to Nutanix. "I understand that with Nutanix, replacing hardware can be done more easily than with conventional infrastructure, so we are hopeful this will lead to a reduction in the man-hours for software setting modifications in conjunction with hardware replacement. We are also considering expanding capacity to handle the rapid increase in users and to continuously provide them with an enjoyable gameplay environment," Mr Chen says.

The company is also considering the use of a hybrid cloud as a disaster recovery measure. "We need to construct a disaster recovery environment in the event the main platform becomes unusable due to some problems. We want to consider measures including integration with a public cloud," says Mr Nakata.



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