

# NTT SmartConnect Enhances Two IaaS Infrastructures with Secure Network Connectivity and Public Cloud Connectivity

The Nutanix Cloud Platform provides an agile foundation for NTT SmartConnect and enables the rapid deployment of the infrastructure when the number of subscribers increases

## BENEFITS

- Allow insource of IaaS deployment, enabling flexibility and agility to support high volume of subscribers
- Up to 5X improvement in service infrastructure performance speed
- Able to reduce the data center footprint by 20% and improved efficiency by 30% data compression through deduplication



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- Tatsuya Imada, Service Operation Department,  
NTT SmartConnect Corporation



“In the unlikely event of a failure, the system can be remotely connected to obtain logs and assist in quickly isolating the problem on the spot, allowing you to deploy the service with peace of mind.”

- Kanji Matsutani, Service Operation Department,  
NTT SmartConnect Corporation

## CHALLENGES

NTT SmartConnect Corporation was established in 2000 as a wholly owned subsidiary of Nippon Telegraph and Telephone West Corporation and provides a variety of services based on its own data center with robust facilities, direct IX connection, and direct peering with numerous ISPs. The company offers four businesses: housing, cloud computing that provides a wide range of services from infrastructure services to SaaS-type services, streaming that enables highly reliable content delivery, and data analysis and utilization using AI log analysis.

## INDUSTRY

Service Provider

## CHALLENGES

- Aging hardware environment
- Insufficient IO processing of service performance
- Deterioration of data center capacity

## SOLUTION

Nutanix Cloud Infrastructure (NCI)

- AOS Storage
- VMware ESXi hypervisor

## APPLICATION

- Various business applications utilized by service users in the data center

The company has great strength of proposal that help resolve customer issues by making full use of its various lineups, including the IaaS infrastructure and accompanying monitoring and maintenance services while differentiating itself from mega-cloud platforms by offering generous services in close proximity to its customers.

The company has been providing the SmartConnect VPS (VPS) cloud infrastructure for its customers via a variety of network connections, including the Internet as well as the nationwide academic network (SINET) and NTT's closed network. In 2014, their legacy infrastructure was reaching end-of-life (EOL) and they needed a new solution. "It was based on the three-tier infrastructure and then it was not able to handle the traffic of our streaming customers. The system used to go down once a week, and we didn't have enough resources," said Tatsuya Imada of the Service Operation Department.

Nutanix's hyper-converged infrastructure (HCI) was then chosen as the IaaS platform for the VPS, overcoming performance challenges. Since then, Nutanix had proven its resiliency, and in 2019, as the timing for another system renewal, NTT SmartConnect decided to renew initial Nutanix platform and further strengthen the Nutanix Cloud Platform.

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## SOLUTION

As the company looked for a new solution in 2019, it had several requirements. Yet, there were two that were of the highest priority to the service operations team. The first priority was to ensure agility to expand and support a high volume of subscribers when needed. As for the second priority, according to Imada, "What was particularly important to us was whether or not it would be easy to divert the service elsewhere in the unlikely event that the platform support was terminated."

"The Nutanix Cloud Platform is software that can run on a variety of hardware, so when the NX series we had been using since 2014 reached EOL, we had no concerns about switching to the HPE ProLiant DX series offered by HPE," said Imada. "When we first adopted Nutanix in 2014, HCI simplified operations and management by eliminating the need to isolate individual servers, switches, and storage failures. For the renewal in 2019, HPE's support for both hardware and Nutanix software was a key winning factor," added Imada.

Currently, Nutanix adoption is expanding beyond VPS to other NTT SmartConnect services. Nutanix is also used in the SmartConnect Cloud Platform (SCP) HaaS, providing bare-metal infrastructure that enables connection to a variety of public clouds as a node-occupying Hardware as a Service (HaaS) and it is operating over 100 nodes as a while. "In many cases, VPS, which can be used after the initial installation of the OS, is used by small business, while SCP is used by large enterprise customers who perform operations on their own. Since VPS can be connected to SINET, we also have customers in the education sector, and our services are used for a wide range of purposes," explains Kanji Matsutani of the Service Operation Department.

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## CUSTOMER OUTCOMES

The benefits of implementing the Nutanix Cloud Platform were immediate. "The Nutanix environment can be easily configured by setting the initial parameters and deploying with one click. So instead of outsourcing the deployment and initial configuration like before, we decided to do it in-house with our own operations staff. This gives us the opportunity to enhance our own IT expertise," said Imada.

Imada added, "The use of all-flash has improved performance speed by up to five times. We have also utilized Nutanix's deduplication. Achieving 30% data compression is impressive and that has helped us increase storage efficiency. In addition, the Protection Domain group backup is very easy to use. We use local backups to avoid the risk and high cost of having an entire node go down."

"Data center footprint size is reduced by around 20% and the facility capacity ratio has improved greatly. This is a key business metric and advantage for us as a data center operator. Should the unlikely event of a failure occur, we can still operate our services with peace of mind because we can connect remotely, acquire logs, and quickly isolate the problem on the spot. By offering a variety of cloud services such as VPS and SCP, we can easily expand our business while combining other commercial products," said Matsutani.

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## NEXT STEPS

"We are also considering the possibility of backing up to other data centers because we are receiving requests from our customers for a DR environment in remote locations. If we can provide a DR environment as an added value to the services we offer, it will make it even easier to expand our services," said Imada. As for the future, "we would like to expand our services to meet the challenges of our customers while also making good use of mega-cloud platforms, such as AWS with Nutanix Cloud Clusters (NC2). We are looking forward to expanding our services to meet the challenges of our customers," said Matsutani.



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