

TOKAI Communications Significantly Reduces Operational Workload Building Highly Scalable Platform with Nutanix

Nutanix Used to Migrate Private Cloud Platform Provided to Customers

BUSINESS BENEFITS

- Sales boost from highly reliable Nutanix products
- Large reduction in the number of customer inquiries with the introduction of Prism
- Reduced administrator workload while operations maintained with minimal human resources
- Less emotional toll on administrators with remote maintenance
- Performance gains including approximately 3x faster IOPS
- Improved data integrity features with flexible snapshots
- Virtual platform migration achieved in a short period



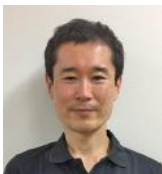
“Our use of proven Nutanix products has become an asset, and it is greatly contributing to a sense of ease in our customers.”

– Kazuyuki Muramatsu, Cloud Services Group Manager of the Data Center Services Department, Infrastructure Platform Division, IT Service Headquarters



“Multi-cloud environments are mainstream, including AWS. With its ease in integrating with cloud and being deployed in our System Integration Department, Nutanix is ideal for what we desire as our environment.”

– Hiroshi Jitsuishi, Platform Services Section Chief of the Cloud Services Group, Data Center Services Department, Infrastructure Platform Division, IT Service Headquarters



“Compared to our previous 3-tier configuration, the workload in setting up the environment appears to have required about half the number of man-hours. It is a big deal that we have been able to gain extra time to improve our service quality, including spending that time on helping our customers.”

– Kazuhiro Terada, Platform Services Section, Cloud Services Group, Data Center Services Department, Infrastructure Platform Division, IT Service Headquarters

INDUSTRY

Telecommunications

CHALLENGES

- Low support quality and lack of features offered in previous product
- Long lead time with 3-tier configuration
- Long service outage during version updates
- Operational costs

SOLUTION

Nutanix Enterprise Cloud OS

- Nutanix AOS
- Nutanix AHV
- Nutanix Prism

CHALLENGE

TOKAI Communications was founded in March 1977 as the company to handle information and communications business for the Tokai Group. It provides various services for advanced information and communications society. TOKAI Communications offers services including: a telecommunication business that offers services to carriers and businesses with approximately 7,000 km of fiberoptic cable; a data center business that offers system operation and management services from data centers located in Shizuoka and Okayama; and a system integration business that constructs environments for businesses. With the three-in-one integrated solutions, the company offers optimal services to customers nationwide.

In its data center business, TOKAI Communications offers the data center service BroadCenter to enterprises. One of the offerings in its extensive service menu is Pracla Hosted Private Cloud, which is a service that enables virtual machines to be constructed without restriction by creating a virtual platform environment exclusive to each customer within the data center. Not only does this reduce operational workload, it also reduces resource procurement costs and lead time, and furthermore increases system availability.

This private cloud environment is constructed in a 3-tier configuration using a hypervisor developed with an overseas joint venture, which was done with an eye toward overseas expansion and its simple and affordable service was well received among many customers. But with the termination of the hypervisor service used in the platform, “We urgently moved to build an environment that would be the successor to the platform being used by many customers,” recalled Kazuyuki Muramatsu, Cloud Services Group Manager of the Data Center Services Department, Infrastructure Platform Division, IT Service Headquarters.

SOLUTION

In building a new platform, the company considered an approach that would resolve previously existing issues. “Our desire was for a highly scalable setup including the ability to easily add nodes to reduce operational workload, and with superior maintainability. In addition, we wanted to move away from a minor hypervisor to a product with better support quality and features,” said Hiroshi Jitsuishi, Platform Services Section Chief of the Cloud Services Group, Data Center Services Department, Infrastructure Platform Division, IT Service Headquarters. “Because nodes can now be added without shutting down service and construction is easier compared to a 3-tier configuration, we can reduce lead time when providing an environment to new customers. We felt we could build ideal environments using Nutanix,” explained Muramatsu. In addition, while previously they had to temporarily suspend service for version updates after first notifying customers, with Nutanix they could perform maintenance without any service outage, thus TOKAI Communications concluded there were big advantages for customers as well.

TOKAI Communications also considered hyper-converged infrastructure from other vendors, but with Nutanix, not only would it be able to procure equipment while keeping costs down in a manner that matched its initial service concept, there was also the benefit of gaining a large amount of operational knowledge from Nutanix’s vast deployment experience. “Procurement costs increase by using VMware, so it doesn’t fit the service concept we offer. We also considered constructing environments using the open-source OpenStack, but the time we had to switch over from the previous service was short, and the necessary development would require man-hours we did not have,” said Kazuhiro Terada of the Platform Services Section, Cloud Services Group, Data Center Services Department, Infrastructure Platform Division, IT Service Headquarters. “With Nutanix, we felt the amount of time needed for environment construction during migration could be minimized.”

With the previous environment, operational issues had surfaced including the inability to acquire snapshots except those from specific drives; difficulty in generating clones when creating templates; and storage volume becoming impacted from the generated differential data between snapshots. “With the rich features of Nutanix AHV, we were able to determine beforehand that it would be able to solve our issues. Because Nutanix AHV is also based on KVM similar to the hypervisor we had used to date, the fact that we could minimize migration risks was also appealing,” said Terada.

TOKAI Communications is also looking forward to future service improvements. “Because we offer solutions to our customers using a multi-cloud environment, the ability to use Amazon Web Services (AWS) in a hybrid environment was also favorable,” said Muramatsu.

CUSTOMER OUTCOME

Currently, TOKAI Communications is migrating a portion of the existing private cloud environments of the approximately 40 companies with which it has service agreements, and it has deployed about 40 nodes of virtual machines that operate Nutanix Enterprise Cloud OS. It offers a service menu including Pracla Hosted Private Cloud that supports environments desired by customers including Windows and Linux. Customers are provided with an environment in which virtual servers can be deployed without restriction using the Prism interface. “We are operating current services with a few employees. Nutanix is operating stably, and because there have been few failures, we can operate the number of nodes we have deployed with less human resources,” said Jitsuishi glowingly. TOKAI Communications has been able to create an environment that can be scaled out flexibly without shutting down service. This includes having already experienced adding nodes within the working environment. In addition, a smooth migration to a new environment can be accomplished by simply copying an image file from an old environment and recreating a virtual machine.

By switching to Nutanix, IOPS performance, which reflects disk processing power, has improved approximately threefold. Feedback from customers has also been positive, as they can feel the faster response times. “We have been receiving positive feedback from customers that functionality and performance have been improved while costs have hardly changed,” said Muramatsu. As for Prism, which is available to customers as an operation and management tool, there have been hardly any questions to support staff since it first started being used. “Prism is being used without any problems, including to flexibly add virtual machines. We believe the fact that we have not been receiving questions is because we are offering an easy to use and understand interface,” said Jitsuishi. In terms of features, data integrity has become easier, including snapshots being able to take the place of backups, which has been appealing to customers.

Previously, it took time and effort for the process of procuring and adjusting equipment in a 3-tier configuration environment for customers. But now by simply installing servers in racks, complicated adjustments are no longer necessary, so the workload in constructing environments has been significantly reduced. “It feels like we have been able to reduce our workload by about half, and we are using this time savings to increase time spent with customer support, so this has also benefited us in improving service quality,” said Terada. The company’s sales staff has also commented positively that by using the well-known Nutanix brand, this has led to an increased sense of trust among customers.

“Even if a failure were to occur, because the log from AHV is rich with information, isolating the problem is easy. Investigating failures can even be done remotely, so systems can be restored in a short period of time,” said Terada. By constructing a stable environment where remote support can be flexibly implemented, it has also contributed to reducing the emotional toll of operation and management in light of the effects of the COVID-19 infection.

NEXT STEPS

“With the availability of Nutanix Guest Tools, which can be used to improve administration performance of virtual machines, the number of features available for use by customers will increase, so we would like to perform verification testing,” said Terada. Currently, Nutanix is deployed only at the Shizuoka Data Center, but at some point it will also be deployed at the Okayama Data Center, and the plan is to also use it to construct a disaster recovery environment within company headquarters.

In addition to the Pracla Hosted Private Cloud platform, Nutanix is also being used by TOKAI Group companies in their internal operations, and more widespread use is being deliberated. “We are also considering using Nutanix on a project-by-project basis, including coordinating with the System Integration Department and having it used in customer environments. We are also counting on new Nutanix features to be useful in the development of a new service menu we will offer customers,” said Muramatsu regarding future plans.



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