Tohoku Information Systems Makes the Smart Move to Nutanix

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>
> – Masahiro Shirakawa,
> Section Chief of the Technology Management Section, Platform Technology Department, Development and Operation Division, Tohoku Information Systems Company, Incorporated

CHALLENGE

Tohoku Information Systems (operating under the corporate brand TOiNX) is a system integrator of the Tohoku Electric Power Group. TOiNX was founded in 2001, with the merger of three information systems companies. Tohoku Information Systems continuously provides its local community with high value derived from IT, based on the corporate vision of exceeding customer expectations under the slogan "Inspiring with IT."

One of the main services provided by TOiNX is its highly flexible virtual hosting service called Saiun that was launched in 2012. Not only can it be used as a public cloud, it can also be used as a private cloud through a dedicated line or by connecting via VPN.

Assistant Supervisor Yuki Takahashi of the Planning Proposal and Promotion Section of the Sales Division's Sales Planning Department, recalls the need to update the system. "We planned on upgrading our aging infrastructure by not only simply replacing the environment, but also by addressing current issues. Our goal was to upgrade to a flexible environment that can address increasingly diverse customer needs."

Section Chief Masahiro Shirakawa of the Technology Management Section of the Development and Operation Division's Platform Technology Department, oversaw construction of the virtualization platform. Of the issues faced at the time, he said, "The previous environment was a 3-tier configuration of separately constructed servers and storage, and the platform itself was complicated. Operation and maintenance were also difficult, with equipment from multiple vendors, and the training costs for learning the different expert knowledge were ballooning."

In addition, research was required on the compatibility between vendors and the impact on the system during every upgrade, which generated a large amount of design work and the creation of new procedure manuals. "Even a simple system expansion would require one to two months," recalled Assistant Supervisor Naoki Noda of the Technology Section #1 of the Development and Operation Division's Platform Technology Department.

SOLUTION

The goal for the new platform was to move away from the complicated 3-tier environment (multi-vendor with individual networking, compute, and storage technologies) and create a simple platform that could be flexibly expanded. At the same time, instead of exclusive storage components such as a SAN, they wanted to build the platform with commonly available components to keep training costs down. "In the past, we invested in infrastructure while envisioning business growth over five years, but for this new environment, we wanted a platform that could start small and be flexibly expanded whenever the business required it," said Shirakawa.

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It was under these criteria that hyperconverged infrastructure was selected. "We started to focus on a hyperconverged infrastructure during the discussion period. We understood its advantage of scalability, so we decided to consider it," said Noda.

After comparing multiple products, the Nutanix Enterprise Cloud OS, build on Nutanix's industry leading hyperconverged Infrastructure (HCI), caught the attention of TOiNX. "The Nutanix Prism management tool that comes as part of the solution is easy to use. Both HCI (combined server and storage hardware) and virtualization software can be managed centrally, and there is no need to separately account for a backup feature. It has an excellent user interface, and its intuitive operation and ease of use are appealing. It can be easily managed, even if you are not technically inclined, and it also offers a big benefit in terms of training costs," said Noda glowingly. "In the past when there were performance issues, we had to depend on a separate support team to figure out the bottle-neck, but with Nutanix Prism, it is easy to separate which layer is having an issue, so the ability to quickly make improvements is also a big point of appeal."

Takahashi emphasized the importance of the cost benefit of using the Nutanix AHV. "Until now we had used a paid hypervisor, but the fact that we can use AHV for zero licensing cost was an overwhelming benefit."

Since other competing public cloud services are offered at low prices, cost was a very important factor in Tohoku Information Systems' decision to use Nutanix. "For us, what is important is whether the virtualization platform can run our customers' applications well and be operated stably and with certainty. After verifying that our actual environment and the migration path were a match for the technology, we were convinced that AHV was more than enough to handle the task," said Shirakawa. In addition, it was calculated that total costs over a five-year period could be significantly reduced compared to a conventional 3-tier configuration.

The in-house consensus to upgrade from a conventional environment to a leading-edge platform was in part due to the spirit of project members' eager-ness to try something new, which led to the awareness and the advantages of Nutanix within TOiNX. "We formed Nutanix study groups and also shared product evaluation reports with other technical departments. We felt that creating a Nutanix platform would provide big benefits to our entire company," said Takahashi. Ultimately, the company chose to try a new approach and selected Nutanix for the new Saiun platform.

RESULTS
Having adopted the Nutanix Enterprise Cloud OS using the NX appliance as the new Saiun virtualization platform, TOiNX plans to migrate existing customers to the new environment in the near future. The virtualization platform was built in a short time period of about two days, and a usable environment was created in less than half a month. "In our previous environment with SAN settings, we had to spend time on complicated tasks, such as access restrictions and volume cutting. But with Nutanix, we were able to shrink the time spanning design through construction by about one half, and there were almost no troublesome aspects with the virtualization platform. We were able to simplify things greatly," said Noda approvingly.

Furthermore, the space used for everything including the uplink switches has been reduced by about 75%. "Looking ahead to our expansion needs to accommodate future customers, we appreciate having the extra space," said Noda.

With regard to scalability, Shirakawa added, "Compared to before when we had to move ahead with some degree of planning, with Nutanix we are able to com-pletely cut out the process of planning and researching. We are now able to expand in an incomparably simple manner. Complex estimates will also no longer be necessary, so being able to quickly provide customers with an environment is a big plus."

TOiNX also values remote support offered as part of standard support from Nutanix, which is conducted over a browser videoconferencing system. In general, it used to take about one week to research a situation, contact support, and wait for the investigation results to be organized. "With web videoconferencing, screen sharing can be done for log analysis on the spot, or to teach us how to command the operations. This smooth face-to-face support is very helpful," said Noda.

Takahashi added emphatically, "We want to minimize the amount of time we spend on the IT platform, and instead, spend time on providing service to our customers. Nutanix has tremendous leading-edge technology, and updates to improve needed features also occur quickly. This is precisely the environment we were hoping for."

As for AHV, it can be used without thinking about the hypervisor. "When building an environment with a typical hypervisor, the virtualization layer uses a management tool specific for the hypervisor, and the physical layer uses that particular vendor's management tool. But with AHV, everything can be managed with Nutanix Prism. There is no need to think about what is under the virtualization layer, so its operation is overwhelmingly easy," said Noda.

The company says that because of the use of AHV, the new Saiun platform will be able to be offered at a competitive market price. "With AHV, we were be able to reduce the licensing costs of our service significantly. With Nutanix, we are now able to offer a more affordable cloud service to our customers," said Takahashi.

NEXT STEPS

Moving forward, TOiNX says that after the next-generation Saiun is released, they want to expand the business platform for new customers while migrating the existing environment. The company also wants to leverage the new Nutanix framework in their business. "With the Prism expansion featuring Calm, applications can be easily installed. For customers as well, they will be able to centrally manage on-premise and cloud and be able to flexibly choose the environment they require at any given time. This approach resonates with the direction of our cloud, and we think moving forward we can also utilize Calm to strengthen functions for Saiun," said Takahashi.

As for Nutanix's Flow micro-segmentation offered with the AHV, Tohoku Information Systems predicts that there will be strong demand from its customers. "Recently, there has been an increasing number of customers strongly aware of targeted attacks and malware strategies. Micro-segmentation, which enables construction of secure environments via granular network visualization and firewall policy between virtual machines, is something we definitely expect customers to use," said Noda.

Nutanix was chosen as the virtualization platform for Saiun, but Takahashi says this was merely the beginning of a long term opportunity. "When considering its operation and cost benefits, we think Nutanix is also suitable for our customers' on-premise environments. It should be able to structure and operate other customer platforms with the same skill-set as it has with Saiun. We want to leverage the expertise we have built and apply it to customers thinking about their on-premise environments."

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