

Open Platform Eliminates
Reliance on Specific Vendors
Flexible Resource Expansion
and Large Reduction in
Operational Man-hours



Nutanix Chosen for Secure Platform to Enable Advanced Work Styles

CHALLENGES

Nomura Research Institute, Ltd. was formed from the merger of the former Nomura Research Institute, Japan's first private-sector think tank, and Nomura Computing Center, which has its roots in the Electronic Data Processing Division of Nomura Securities. Possessing different roles including as a consulting firm and system integrator, NRI also addresses the issues of many clients as Japan's largest IT solution provider. Continuing to challenge itself on various fronts as a company that creates future society, NRI offers its long-term management vision "Vision 2022" as it pursues five growth strategies including "Dramatic Expansion for Globalization" for co-creating truly meaningful innovations.

NRI's Information Systems Planning & Control Department that includes IT management has formulated the IT Medium-term Plan 2022 (IT Medium-term Plan) in a step toward fulfilling its long-term management vision. General Manager, Division Manager Shinji Hotta says that the company is actively pushing forward to develop leading-edge technology and solutions. "Beginning with reliable integration of legacy systems, we are touting construction of new systems that support business expansion, and IT management that includes a global cross-functional approach as part of the IT Medium-term Plan. One of the pillars of this plan is the formation of a secure platform system that supports advanced work styles. We are working to build a platform for this purpose."

Virtual Desktop Infrastructure (VDI) deployed several years ago is the core of the secure platform system that aims for new work styles. "The issues in that environment were to ensure integrity of data remaining in devices, and management operational burden for patching and correspondence to new models," said the Project Manager, Takashi Ito, Senior Systems Analyst of Smart Communication Solution Business Department #1, IT Platform Innovation Division. "To resolve this, we concluded that managing data in a datacenter with a controlled environment and using a VDI environment would be ideal so that work can be performed safely from anywhere regardless of device." NRI, which handles very sensitive customer information, had deployed a thin client environment in the past, but the time to update that system had arrived, and to fulfill the IT Medium-term Plan 2022, the company decided to consider constructing a VDI environment with an eye toward company-wide implementation.

Hotta recalls that specific problems had surfaced under the previous VDI and thin client environment. "Under the assumption that all employees would use a uniform environment, a separate environment became necessary to use a specific app. In addition, it was troublesome to add hardware, and slow booting terminals were also an issue. We were looking for an environment that would simultaneously solve these issues." Technical Engineer of Smart Communication Solution Business Department #1, Shuji Suyama, who oversaw actual system design, said, "We also considered a conventional 3-tier configuration, but this took a lot of effort and time in designing, building and operation including storage expansion and server configuration."

"With a 3-tier configuration, a different operation and management tool would be necessary for each vendor, and acquiring specialists for each vendor would also become necessary. Given that time would also be spent on establishing a VDI environment on Citrix XenDesktop with Windows 10, we needed a platform like Nutanix that could become stably operational within a short time period."

– Takashi Ito, Senior Systems Analyst,
Smart Communication Solution Business
Department #1, IT Platform Innovation
Division, Nomura Research Institute



SOLUTION

In addition, NRI wanted to use this opportunity to build an advanced foundation that could provide a unique differentiation to their customers. “It was important that we were able to do a solid evaluation of this as an experimental project. It would make no sense to have built it in an inflexible way,” said Ito. First NRI chose the Citrix XenDesktop for a VDI environment, with Windows 10 desktop. “We are using Skype for Business as a solution for transforming work styles, and the Citrix HDX plug-in is recommended for a VDI environment, so ultimately we chose Citrix,” said Suyama. For NRI, as it actively works towards implementing an open platform, this means that it wanted to avoid using a specific hypervisor in a specialized VDI product.

Next NRI carefully evaluated hyperconverged infrastructure (HCI) as an alternative to traditional infrastructure. The right HCI offering eliminate the sizable upfront investment and the gradual VDI deployment would eliminate waste. NRI’s Suyama became aware of the Nutanix Enterprise Cloud Platform as an ideal hyperconverged foundation for VDI. “I thought it met our needs as we would be able to scale needed resources when we needed them--simply and online. I heard that VDI has a track record of being used overseas, so our discussions proceeded smoothly up through the testing stage.”

Ito also analyzes that this project having an accelerated or short delivery time played a big factor in choosing Nutanix. “With a 3-tier configuration, a different operation and management tool would be necessary for each vendor, and acquiring specialists for each vendor would also become necessary. Given that time would also be spent on establishing a VDI environment on Citrix XenDesktop with Windows 10, we needed a platform like Nutanix that could become stably operational within a short time period.” Given that Nutanix and Citrix are also technology alliance partners and Nutanix’s track record with VDI, NRI selected the Nutanix Enterprise Cloud Platform as the secure platform system it seeks.

Currently, NRI has deployed the Nutanix Enterprise Cloud Platform and has built a VDI environment for 1,000 users in the company headquarters, covering their Corporate Unit. There are two types of VDI environments available—one is called “standard VDI”, and the other is an “individual VDI” that can be used for various applications, thus solving the aforementioned uniform environment issue. It also offers a desktop environment that uses iPads to managerial level employees.

RESULTS

As for actual system construction, Suyama gives Nutanix high marks for being able to build the platform in a short amount of time compared to 3-tier infrastructure. “Regarding the configuration, setup and testing process, both man-hour and period were reduced to about 1/4 compared with the conventional system configuration. Thanks to this, we were able to focus on implementing Windows 10 and Citrix. This should be a big advantage in doing business with customers.” As for the issue of PC boot times, there is also a big improvement compared to before. “By moving the mail data in the physical environment to the disk in the virtual environment, the data reading time at startup has been shortened, and the desktops are ready for use in less than half the time as before. And at the same time, the shutdown time has become smooth. It’s a big relief to get rid of boot storms,” said Hotta. As for login storms that take up time during desktop login, performance has been as designed with logins requiring less than one minute. “We used a load test tool and purposely caused a login storm, and during this time we actually performed some operations, but it never reached a situation of 100% resource usage. During deployment, copying was also overwhelmingly faster, so we are also very satisfied with performance,” said Suyama.

In terms of operation, Suyama believe this has saved his team substantial administrative time compared to before. "Centralized management has become possible with the Nutanix Prism management tool, so we were able to significantly decrease the number of operational man-hours. Stable processes were quickly established, and operations steps are basically reduced to zero." In addition, the burden on IT and users has been greatly reduced, as centralized control for PC data security makes doing backups simple. "Users are no longer burdened with applying patches and other upkeep. Security is our lifeline, and it is of a higher priority than cost effectiveness. The fact that these risks have been greatly reduced is due to centralized management with a VDI environment," said Hotta.

This project has been a hot topic within NRI with its numerous engineers, and many inquiries have been received from various departments. "Even on the business division side that provides customers with solutions, the topic of leveraging Nutanix Enterprise Clouds has been widely discussed. Because we can recycle in-house insights gained from leading-edge efforts, this project has been highly regarded," said Ito.

Suyama also speaks highly of Nutanix support, saying, "We also received quick responses to questions on the infrastructure and VDI environments. In addition, they interacted with us with local engineers so that they could quickly understand our environment. We received full support including having them actually confirm our source code, so we are appreciative."

NEXT STEPS

Moving forward, NRI is planning a company-wide rollout by 2020, and the latest schedule is to expand by additional 1,000 users. Currently, NRI is using VMware as its hypervisor, but after considering cost and other factors, Suyama hints at his interest in contemplating Nutanix's native hypervisor, AHV, saying, "When considering maintenance including license fees, there is a significant cost impact. We want to broaden our insight and consider how to offer the ideal environment to our clients."

Ito also emphasizes, "As we come to the stage where we offer to our clients insight gained from this project, the value of this project increases further. As a solution for private cloud construction, Nutanix is a valuable component."

Hotta also says that this finding can be applied to the purpose-specific VDI in the future. "It enables us to offer a development VDI with a suite of development tools. So a variety of VDI formats is imaginable, such as for employees or development partners, and for domestic partners or offshore partners. Even if there is turnover in personnel, deleting an environment or returning a desktop would not be a problem, and a safe environment can be offered with proper application control." Hotta also says that while environment control is enhanced through central management of applications, at the same time the workplace is freed from extra tasks such as license management and is able to focus on its primary work. Suyama spoke from an engineering viewpoint that he would like to expand the potential use of not only VDI but also Nutanix such as in in-house applications as a private cloud platform, and in direct sales.



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COMPANY

Nomura Research Institute is Japan's largest IT solution provider with different roles including as a consulting firm and system integrator. Continuing to challenge itself on various fronts as a company that creates future society, NRI offers its long-term management vision "Vision 2022" as it pursues five growth strategies including "Dramatic Expansion for Globalization" for co-creating truly meaningful innovations.

INDUSTRY

IT Services

BUSINESS NEEDS

- › Creation of secure platform system that supports advanced work styles
- › Solving issues of conventional VDI including offerings of only uniform environments and slow boot-up times
- › Leading-edge efforts to create VDI environment with Windows 10 on Citrix XenDesktop
- › Creation of hassle-free platform that enables system deployment in short time period

SOLUTION

Nutanix Enterprise Cloud Platform
NX-8000 Series

BENEFITS

- › Successful deployment of VDI that enables new work styles
- › Setup and deployment reduced from about 6 man-months to about 2 weeks
- › Accelerated bootup and shutdown
- › Operations steps for infrastructure are basically reduced to zero
- › Operational man-hours reduced significantly by centralized management using Nutanix Prism
- › Increased data integrity and security, and application control
- › Open platform eliminates reliance on specific vendors and vertically integrated products.

Nutanix makes infrastructure invisible, elevating IT to focus on the applications and services that power their business. The Nutanix enterprise cloud platform leverages web-scale engineering and consumer-grade design to natively converge compute, virtualization and storage into a resilient, software-defined solution with rich machine intelligence. The result is predictable performance, cloud-like infrastructure consumption, robust security, and seamless application mobility for a broad range of enterprise applications. Learn more at www.nutanix.com or follow us on [Twitter@nutanix](#).

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