

Supporting a changing IT landscape with speed and simplicity.

How **HC Networks** used a hyperconverged infrastructure solution based on Lenovo ThinkAgile HX Series appliances, featuring 2nd Gen Intel® Xeon® Scalable processors and Nutanix software, to bring its virtual desktop infrastructure back in house at reduced cost and complexity.

Lenovo Infrastructure Solutions
for The Data-Centered



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Background

HC Networks is a network system integrator that provides a wide range of network-related solutions and services. Founded in 1981, the company currently employs 292 people and serves customers across Japan, including enterprises, educational institutions, government departments, and medical institutions.

Key business activities at HC Networks include design, construction, and maintenance of information network systems, development and distribution of proprietary network appliances, and installation and integration of unified communication systems equipment, including video conferencing systems.

The company has operated an extensive virtual desktop infrastructure (VDI) for more than a decade. It was first introduced as a countermeasure against information leaks due to the loss or theft of PCs used by field sales staff. VDI use has steadily expanded since then, with the most recent generation of the environment supported by a third-party provider via a desktop-as-a-service (DaaS) model.

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Challenge

Around three years ago, HC Networks' DaaS provider announced that it would be discontinuing the service, prompting the company to look for an alternative solution.

Mr. Yoshio Nakayama, Business Administration Department Manager of the company's Information System Group, recalls: "We were offered virtual desktops on a server OS as a replacement, but since our business applications did not run on the server OS, we gave up on continuing to use the service of that provider and decided to fundamentally review our VDI operations.

"We had the option of continuing to use another DaaS provider, but the continuity of their service was questionable. It would have also required a lot of hours to migrate each time, and DaaS had limited flexibility in terms of settings and resource allocation."

HC Networks had previously considered hosting its VDI landscape in house, using a virtualized infrastructure supported by a traditional three-tier hardware configuration. It ultimately abandoned the idea due to concerns around the time and resources required to support this approach.

However, recent advancements in the hyperconverged infrastructure (HCI) space prompted the company to re-evaluate its position, as Mr. Nakayama explains: "With the emergence of HCI, the environment has become ready for easy VDI operation, even on a virtualized infrastructure. We reached the conclusion that it would be more beneficial to build a virtualized infrastructure ourselves, supported by an HCI platform."



“The most promising candidates for the VDI infrastructure were Nutanix and the Lenovo ThinkAgile HX Series with 2nd Gen Intel® Xeon® Scalable processors.”

Mr. Yoshio Nakayama

Business Administration Department Manager, Information System Group, HC Networks



Why Lenovo? Highly reliable hardware, pre-integrated with leading Nutanix software.

HC Networks determined that the Lenovo ThinkAgile HX Series, featuring 2nd Gen Intel® Xeon® Scalable processors and pre-loaded HCI software from Nutanix, offered the best fit for its needs.

“We have been working with Nutanix products since about 2013, using them as the virtualization platform for many of our customers,” notes Mr. Nakayama. “Therefore, when we decided to replace the virtualization infrastructure for our business servers, we had no hesitation in implementing HCI with Nutanix.”

He continues: “Various server manufacturers had introduced HCIs with Nutanix software. After comparing the available options, we decided that the Lenovo ThinkAgile HX Series was the best choice because of the robustness of the area where the hypervisor is stored, the reliability of the hardware, and the ease of maintenance.”

Straightforward set-up and management.

As a first step, HC Networks configured and deployed a four-node Lenovo ThinkAgile HX3320 cluster for its core business servers, which went live in August 2019. Following the success of this initial project, the company decided to migrate its VDI to the same HCI cluster.

Mr. Nakayama says: “Rather than establishing separate clusters for our business servers and VDI respectively, we determined that the Lenovo and Nutanix HCI would be able to handle the load by scaling out as needed, and decided to run both environments on the same cluster.”

HC Networks moved ahead with the next step: adding two Lenovo ThinkAgile HX3320 nodes to the existing HCI cluster, making it a six-node system, and commencing operation of the VDI.

Mr. Hideomi Kikuchi, Team Leader of the Information System Group at HC Networks, comments: “Adding the new Lenovo ThinkAgile HX3320 nodes was very easy, and we were able to start using them the next day. It was as if HCI had come into its own.”

Even as HC Networks has brought its VDI back on-premises, the move hasn’t created additional management effort, in large part due to the simplicity offered by Nutanix Prism software.

“Managing the VDI with Nutanix Prism is very easy, almost like an automatic operation,” confirms Mr. Kikuchi. “Nutanix Prism alerts us whenever there is an issue, and we can check and respond centrally, so we don’t have to manage as much as we would with a three-tier system. In this respect, I think we can say that there are almost no difficulties now that we are operating on-premises.”

Mr. Nakayama notes: “If we operate on a common infrastructure, we can make effective use of resources and minimize investment in hardware. This is one of the advantages of HCI.”



“We no longer have to migrate storage data as the hardware ages, as we used to do in the past. With the Lenovo ThinkAgile HX3320, we can always keep the latest data on the platform by adding new nodes and then retiring the old servers, a kind of rolling update.”

Mr. Hideomi Kikuchi

Team Leader, Information System Group, HC Networks

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Results

HC Networks' investment in Lenovo and Nutanix HCI platform has paid off in ways that the company had not even anticipated. While the VDI was originally used almost exclusively by sales teams, it quickly became a critical tool for the whole company following the outbreak of COVID-19, enabling HC Networks to seamlessly transition to remote working.

"The number of VDI users is increasing as telework becomes more widespread," says Mr. Kikuchi. "We are considering adding nodes to the HCI because the web meeting system places a heavy load on the VDI. As the Lenovo ThinkAgile HX3320 is so easy to install, we have no concerns from a system perspective."

HC Networks also sees a valuable future opportunity in taking the experience it has gained in operating a VDI on the Lenovo ThinkAgile HX platform and using it to develop new solution offerings for its customer base.

"We were able to build our internal system based on the knowledge we have gained from Lenovo and Nutanix, and we can now operate the virtualization infrastructure on premise with a limited number of people," remarks Mr. Nakayama. "The number of customers considering VDI is rapidly increasing due to the expansion of remote work, but to be honest, the implementation of a VDI infrastructure is not a small hurdle. In the future, we hope to use our knowledge to provide our own telework solutions to our customers."



Maximizes resource use while reducing overall costs



Simplifies infrastructure management



Easily scales to meet increased remote working demands



“The virtualized infrastructure based on Lenovo ThinkAgile HX Series, with its high reliability and high maintainability unique to HCI, will strongly support our business.”

Mr. Yoshio Nakayama

Business Administration Department Manager, Information System Group, HC Networks

What will you do with Lenovo software-defined infrastructure solutions?

The Data-Centered use Lenovo smarter infrastructure solutions, powered by Intel® Xeon® Scalable processors, to keep VDI costs and management effort to a minimum.

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