Healthcare | Japan

New Tokyo Hospital delivers always-on access to medical systems with Lenovo

New Tokyo Hospital

To deliver high-quality experiences to a growing number of patients, New Tokyo Hospital used Lenovo TruScale Infrastructure as a Service (laaS) to deploy a hyperconverged infrastructure (HCI), offering performance, scalability, and reliability for its key medical applications.



Customer background

Who is New Tokyo Hospital?

Based in Matsudo, Japan, New Tokyo Hospital was founded in 1968. For over 30 years, the organization has provided emergency medical care for the northwestern Chiba Prefecture, focusing on the treatment of cardiac diseases.

With 430 beds, New Tokyo Hospital operates from three sites, including the New Tokyo Clinic and New Tokyo Heart Clinic. The organization is continually expanding its treatment and surgical capabilities, which now include robot-assisted surgery.

§ Iryouhoujinsyadan Seikeikai New Tokyo Hospital

The challenge

Digital capabilities play a vital role in the delivery of patient care at New Tokyo Hospital. The organization's IT team is responsible for supporting approximately 1,000 employees with electronic medical records and other important applications.

Mr. Takashi Usui, Assistant Manager – Systems
Department at New Tokyo Hospital, says: "Electronic medical records have become the norm for many medical institutions. New Tokyo Hospital is no exception—we also use digital solutions to manage test results and store images from our radiology systems."

The challenge

In 2012, New Tokyo Hospital moved to its current location and expanded its facilities to allow more people to use the hospital. Mr. Takashi Usui says: "As we scaled out our IT systems, it was becoming more and more difficult to manage them with our lean IT team."

Previously, New Tokyo Hospital delivered IT services from a traditional three-tier architecture hosted at two server rooms: one at the main hospital site and another at the New Tokyo Clinic. Because of the high risk of flooding at the New Tokyo Clinic site, the hospital decided to consolidate its infrastructure to a central location.

The challenge

As it embarked on the project, New Tokyo Hospital faced a number of challenges. There was limited rack space available in the New Tokyo Hospital server room, and installing additional racks and power supplies would be extremely costly. To prevent disruption to front-line care services, the organization also needed to migrate the healthcare systems to the new platform with almost zero downtime.

To address these requirements, New Tokyo Hospital decided to replace the hardware at its primary server room with a hyperconverged infrastructure (HCI) solution, integrating computing, storage, and network functions into a compact footprint.



"With a traditional three-tier environment, a problem with our physical servers could take our healthcare applications offline. As an emergency hospital, we need our systems to be available 24 hours a day. To minimize the risk of downtime and fit everything in a small sever room, we decided to introduce a HCI environment."

Mr. Takashi Usui

Assistant Manager - Systems Department, New Tokyo Hospital

The solution

Building a fresh IT environment

To deliver the new HCI solution, New Tokyo Hospital selected Lenovo TruScale Infrastructure as a Service (laaS). The new platform is based on three Lenovo ThinkAgile HX5530-H appliances virtualized with Nutanix Cloud Platform, alongside a Lenovo ThinkSystem SR250 V2 server to deliver system management capabilities.

Simpler to manage than a traditional three-tier architecture, the Lenovo and Nutanix solution allows for non-disruptive expansion and upgrades. And with TruScale laaS, New Tokyo Hospital gets modern hardware for a predictable monthly fee as well as remote monitoring and proactive maintenance support services from Lenovo.

Services

Lenovo TruScale Infrastructure as a Service Lenovo Professional Services

Hardware

Lenovo ThinkAgile HX5530-H Lenovo ThinkSystem SR250 V2

Software

Nutanix Cloud Platform Nutanix Prism

The solution

Minimizing the risk of downtime

One of the key reasons for choosing TruScale laaS was the ability to deploy high-performance hardware without large up-front capital costs.

Mr. Takashi Usui says: "Medical institutions prioritize investment in medical treatment and testing, which means we need to keep our IT costs as low as possible. With TruScale laaS, we don't need to make a large lump-sum investment—instead, we can spread the cost over five years of monthly payments."

The solution

He adds: "Other vendors we considered offered us low-spec systems as a way of meeting our budget requirements, but this would have resulted in poor performance for our applications and greater risk for our healthcare services. Lenovo gave us the performance and storage capacity we needed for a much lower cost than we expected."



"Lenovo offered us a system infrastructure that exceeded all our expectations. With TruScale laaS, we can help the hospital to reduce its IT costs."

Mr. Takashi Usui

Assistant Manager - Systems Department, New Tokyo Hospital

The results

With the introduction of TruScale laaS, New Tokyo Hospital is gradually migrating healthcare applications for each of its departments to the new HCl platform, including its laboratory information management system, radiology information system, and more.

The new environment is now much easier to manage. "With the Lenovo and Nutanix solution, there's no need for us to go to the server room to perform management tasks—we can complete everything via the Nutanix Prism portal," says Mr. Takashi Usui.



Enables easy, centralized management via Nutanix Prism



Avoids capital costs with an innovative pay-as-you-go model



Provides 24/7 energy consumption monitoring



Completes daily backups automatically in just 45 minutes



Meeting the needs of always-on healthcare

Although New Tokyo Hospital has only migrated around 10% of its healthcare users to the new platform so far, the organization is already experiencing the benefits of the HCl solution.

"In the past, it took around three hours to back up our occupational therapy system," says Mr. Takashi Usui. "Every night at around 2 a.m., we had to manually shut down the system to complete the process. With the Lenovo and Nutanix solution, we can complete daily backups automatically in just 45 minutes—there's no more overnight work. I think HCI solutions are a great fit for medical institutions that need their healthcare systems to be online around the clock."



"By utilizing advances in AI technology, we can streamline the way doctors work and give them more time to spend with patients. As system operators, we also want to spend more time interacting with our stakeholders. The combination of HCI solutions and Lenovo TruScale laaS allows us to spend less time on server management and more time on improvements for our users."

Mr. Takashi Usui

Assistant Manager - Systems Department, New Tokyo Hospital

Why Lenovo?

The Lenovo Professional Services team played a key role in helping New Tokyo Hospital to design the optimal HCl solution. Mr. Takashi Usui comments: "Lenovo Professional Services proactively addressed all my concerns about the new solution, which gave me great peace of mind. Thanks to the team's guidance, we felt confident to move forward with the project."

Another reason for choosing Lenovo was the quality of its support services. "We feel very safe knowing that we can leave everything from monitoring and maintenance to technical support in the hands of the Lenovo team," adds Mr. Takashi Usui.

How can hospitals deliver always-on access for digital services?

With Lenovo TruScale laaS, New Tokyo Hospital gains reliable, high-performance infrastructure without up-front capital costs.

Explore Lenovo TruScale Solutions

