



Education

Delivering a **leading** learning experience

Tama University

How Tama University used Lenovo ThinkAgile VX Series hyperconverged solutions to scale up its virtual desktop infrastructure to support a growing student body.

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Who is Tama University?

Tama University is a private university with campuses in Tama, Tokyo, and Fujisawa, Japan. Established in 1989, the university pushes students to pursue their aspirations with an educational experience designed to be international, interdisciplinary, and relevant.

Tama University currently has an enrolment of over 2,000 students, spread across three main faculties: the School of Management and Information Sciences, the School of Global Studies, and the Graduate School of Management and Information Sciences.

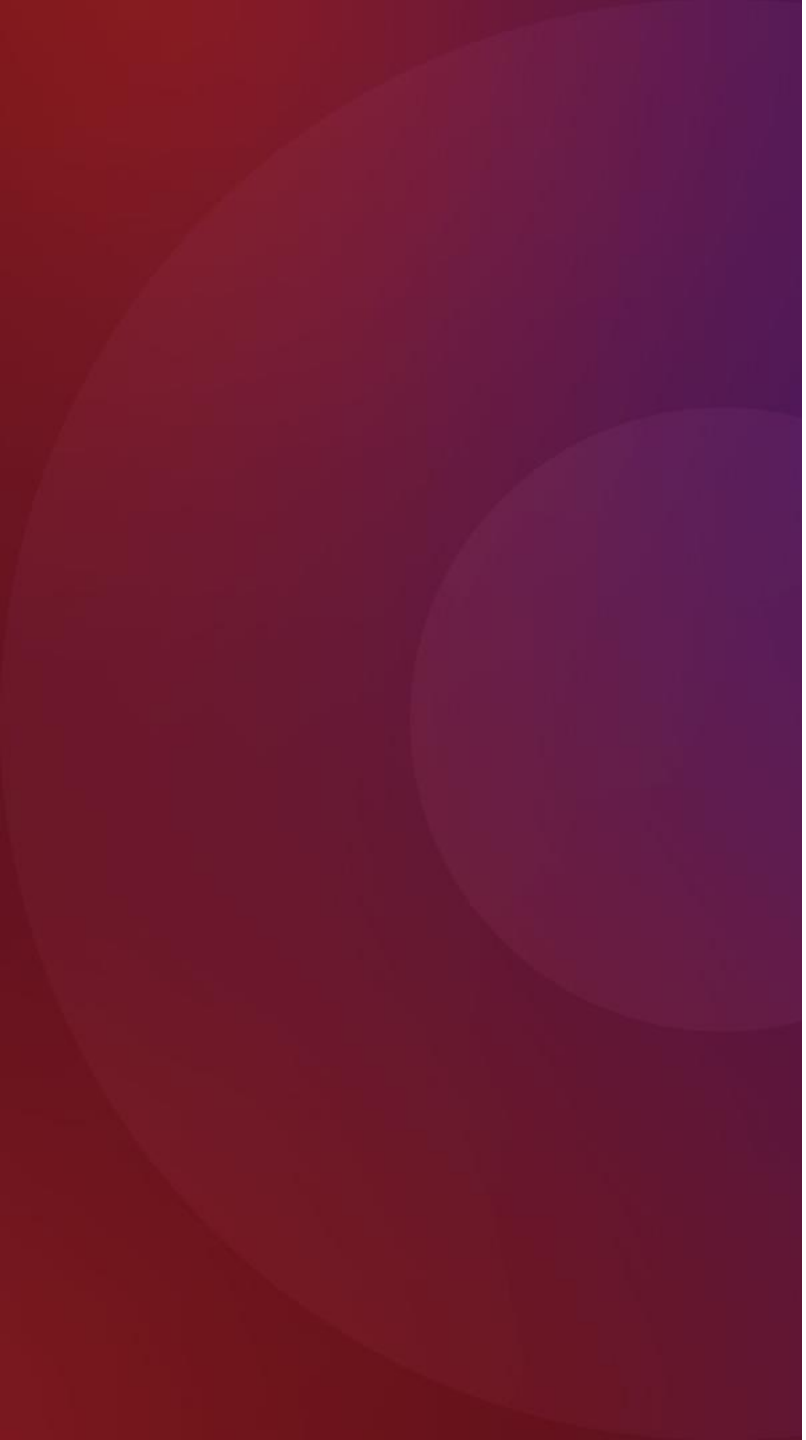


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The Challenge

Since its establishment, the School of Management and Information Sciences has focused on PC-based education in order for students to learn the connection between management and information in depth, and to absorb the advanced knowledge necessary for practical business.

As technology evolves, it is important for the university's IT infrastructure to keep pace. According to Mr. Shoichi Kodaira, Director of Tama University's Academic Affairs Division: "As tablets and smartphones have become more widely used in the business world, it has become difficult to say that continuing to stick to the laptop format will necessarily produce progressive educational results. Also, if students have to bring their own laptops to lectures, they may not be able to keep up with the latest ICT technology."



Several years ago, the university began experimenting with Desktop as a Service (DaaS), providing a cloud-based virtual desktop infrastructure (VDI) for students. This includes an environment for general students with standard applications and another environment with high-load applications used in select lectures, such as programming tools, statistical tools, and 3D graphics software.

This approach allowed students to have a workspace for learning without being restricted by the type of device, location, or time of use. At the same time, some new issues emerged.

Mr. Shingo Eto, Information Director at Tama University's Academic Affairs Division, elaborates: "As the desktop environment has to be accessed over the internet, there were times when it was difficult to connect during busy times, such as just before the start of a lecture. In addition, we had problems with some of the heavy applications used in lectures not running properly, as well as occasional issues with spec limitations. The DaaS system has been a great help to the students, but it also presents some new challenges."

Choosing a scalable and cost-effective platform

To solve these issues and provide students with a flexible virtual environment for desktop work, Tama University decided to replace its cloud service with an on-premises VDI. With the new approach, VDI access from within the university is enabled via intranet, rather than the internet, meaning that access problems are less likely to occur and specifications can be flexibly adjusted.

Lenovo's hyperconverged infrastructure (HCI) server platform, Lenovo ThinkAgile VX3320, proved to be the obvious choice for Tama University. The HCI solution combines Lenovo's server hardware with VMware vSAN™ storage virtualization technology, enabling flexible system expansion by adding server nodes.

Hardware

Lenovo ThinkAgile VX3320
Appliance

Software

VMware vSAN™



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“We selected the Lenovo ThinkAgile VX Series solution based on its cost performance when considering future expansion and our experience with VDI operations at other universities.”

Mr. Shingo Eto

Information Director, Academic Affairs Division,
Tama University

Tama University began deployment of an on-premises VDI, supported by the Lenovo HCI platform. Working with implementation partner Fuji Xerox Tama Co., the university successfully implemented the VDI in time for the new enrollment period.

Mr. Chika Yukawa, Sales Division, System Engineering Department at Fuji Xerox Tama Co., comments: “The initial deployment of the VDI proceeded smoothly without any major problems. It took some time to verify the operation of the applications used by users on the virtual desktop environment, but in the end, we were able to provide a VDI desktop environment for students in the new academic year as originally planned.”

The VDI is operated in a server room on the Tama campus, allowing for high-speed access via the university intranet. This has eliminated all access and specification problems that had plagued the previous DaaS platform.

Currently, the VDI is available to students of the School of Management and Information Sciences at the university’s Tama campus. It includes a general environment for applications such as Microsoft Office and a high-specification environment for high-load applications, including 3D graphics software and statistical software.

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“The initial installation was extremely simple, taking advantage of the benefits of the Lenovo HCI product, which has all the functions of a SAN in one package.”

Mr. Chika Yukawa

Sales Division, System Engineering
Department, Fuji Xerox Tama Co.

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Results

Thanks to the new VDI, underpinned by the robust Lenovo ThinkAgile VX Series platform, Tama University has been able to discontinue the distribution of PCs to students. This has virtually eliminated PC support work in the Academic Affairs Division, resulting in a significant increase in work efficiency.

Mr. Shingo Eto confirms: “In the past, we were busy dealing with problems and troubleshooting PCs distributed to students, but since we switched to VDI, students have been able to access the VDI environment from their personal devices.”

Following its initial HCI deployment, Tama University expanded the VDI infrastructure by adding Lenovo ThinkAgile VX3320 appliances. The university was able to increase the number of simultaneous VDI connections for 400 freshmen students, while also increasing the number of servers from the 10 that had been running on a separate server virtualization environment.

“We calculated the amount of resources required based on the projected increase in the number of simultaneous connections and the processing load of each server, so we haven’t experienced any performance problems even after the expansion,” says Mr. Chika Yukawa. “The addition of the new nodes was also a smooth process, with the exception of some time-consuming firmware updates.”

Tama University plans to continue scaling up the system as new students enter each year, when the VDI environment will be available to all students. The university also plans to deploy a similar environment for students at its Shonan Campus, which houses the School of Global Studies.

Looking even further into the future, Tama University sees great potential for the Lenovo ThinkAgile VX Series platform, not only as a foundation for VDI, but also for other applications, such as a chatbot that can answer student inquiries 24 hours a day, 365 days a year.

Mr. Shingo Eto concludes: “We have long used Lenovo technology, not only servers but also PCs distributed to students. We hope that Lenovo will continue to provide us with products and services to realize an enriched learning environment.”



Scales easily to support growing student numbers



Enables rapid, reliable access to educational resources



Eliminates time-consuming IT admin work

Why **Lenovo**?

Mr. Shoichi Kodaira recalls: "When it came to selecting a solution, scalability was our key criterion. We planned to provide a virtual desktop environment for new students who would be enrolling at the university in the near future. Therefore, we needed a system architecture that would allow us to easily expand VDI use in stages."

The university also considered other HCI solutions as potential candidates, and ultimately chose the Lenovo ThinkAgile VX3320 based on its cost performance and its track record in supporting VDI operations at other universities.



How do you ensure access to essential educational resources?

Keeping students connected while reducing workload for IT teams with Lenovo technology.

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