FUJITSU

Case study
Chiba Institute of Technology

»We wanted an educational information system that would lead our students into the Cloud era. Fujitsu greatly impressed us with their knowledge of the specialist engineering hardware, the optimal software and the detailed tuning requirements.«

Dr. Naoto Nakamura, Chairman of Information and Media Committee (Professor, Department of Information and Network Science, Faculty of Information and Computer Science), Chiba Institute of Technology

The customer

Country: Japan
Industry: Education
Founded: 1942
Students: 10,091
Website: http://www.it-chiba.ac.jp/

Chiba Institute of Technology

The challenge

Chiba Institute of Technology (CIT) had three key objectives in mind when considering an update of their core information systems for learning. Management wanted to meet its commitment to provide a high quality educational experience with sufficient opportunity for students to access relevant resources. They also planned to lighten the operational load related to the IT laboratories at the Shibazono Campus while implementing a system that would allow for uninterrupted online learning even if a technical fault occurred.

The solution

After closely analyzing the solution requirements, Fujitsu was the only vendor to submit a Desktop-as-a-Service (DaaS) proposal to CIT. The implementation of Fujitsu's Cloud-based Workplace LCM virtual DaaS environment meant that the Institute no longer needed to maintain hardware, to purchase and update software, or to monitor system operations. Students are now able to access their computer-aided design (CAD) applications and other advanced resources from any place at any time.

The customer

Chiba Institute of Technology (CIT) is one of Japan's leading technical universities, with a reputation for establishing new specialist departments, such as advanced robotics and research into planetary exploration. Celebrating the 70th anniversary of its founding in 2012, CIT is the oldest existing private institute of technology in Japan. The educational philosophy focuses on collaborative research between staff and students to make practical contributions to society. One such example was a rescue robot used in the aftermath of the Fukushima nuclear disaster. With operations on two campuses, CIT is keen to make optimal use of technology to give every student the best opportunity.

The challenge

CIT made a commitment to its students to provide high-quality learning that could be conveniently accessed with ample time for study. For engineering students using high-end CAD systems, it was always difficult to allocate sufficient time in the on-campus IT laboratories. Fujitsu undertook detailed hands-on investigation and discovered that many facets of a university's DaaS implementation would vary significantly from a similar system used in the corporate world. For example, at CIT a large number of students would log-in and log-out in rapid succession during the day and many users would be simultaneously accessing resource-intensive CAD applications. As it would be the first instance of a Japanese university introducing a DaaS solution, there was some understandable concern by CIT about potential risks. Fujitsu drew on its many years of experience and worked closely with the customer to reassure them of the proposal's many merits.

The solution

Fujitsu implemented its Cloud-based Workplace LCM virtual desktop environment so that students at CIT could have the flexibility to access their coursework at a time and place that suited their schedules. The reliable Cloud infrastructure at Fujitsu's secure data center is used to its fullest extent as part of a broad outsourcing service that is charged on a monthly basis. All related hardware on-campus – from PCs to printers and scanners – is managed under a comprehensive lifecycle management plan. This spans the planning, design, purchase, operation and disposal phases of the equipment. From a systems management viewpoint, efficiency is enhanced because application deployment and upgrades for all users are performed remotely.

The benefit

- Students can access high-speed computing systems more easily and more frequently than before, enhancing their ability to learn.
- CIT was able to reduce operational and capital costs for the purchase, maintenance and staffing of computing facilities.
- The use of Fujitsu's off-campus data center for all hardware, software and storage has led to a more stable and secure operation.

Products and services

Fujitsu's Cloud-based Workplace LCM Virtual Desktop as a Service (DaaS)

The benefit

The staff at CIT were amazed with the speed of Fujitsu's Cloud solution when using it in the classrooms with 131 virtual desktops deployed.

"We use Fujitsu's Desktop-as-a-Service solution for teaching CAD and computer graphics techniques during foundation courses for first-year and second-year students. Staff have told me that the desktops are faster and more responsive than they expected. I was really surprised myself, especially with the speed of the graphics rendering."
Mr. Tatsuya Fukuyama, Team Leader, Information Systems Department, Chiba Institute of Technology

The Institute is now considering the implementation of virtual desktops campuswide.

Remote unified software deployment and upgrades have significantly cut the labor costs associated with systems maintenance. Also, the Tsudanuma campus can now handle all on-site support issues, allowing the computing facilities at the Shibazono campus to operate unmanned – thereby further reducing costs.

The benefits of having a securely managed off-site facility to host the systems and store all data became clearly apparent during the implementation phase. The March 11, 2011, earthquake and tsunami that struck Japan and the ensuing power station failures saw widespread blackouts across the region – including at CIT's campuses. Fujitsu's data centers, however, continued to provide continuity of service to customers.

Conclusion

Institutions of higher education have traditionally been at the forefront of new technologies and advances in learning. As one of Japan's pre-eminent technical universities, the Chiba Institute of Technology was determined to lead the way when providing appropriate computing facilities for its students in the Cloud era.

"Fujitsu was the only company to propose a Desktop-as-a-Service solution during this tender process. By providing this flexible environment, our students are now free to study using advanced applications whenever and wherever it suits their schedules. We are very pleased that this solution has helped us meet our commitment to provide high-quality learning that can be conveniently accessed with ample time for study."
Mr. Yoshinobu Murakami, Manager, Information Systems Department, Chiba Institute of Technology

Working together with CIT to understand their business and educational requirements, Fujitsu has helped to create a foundation for future advances. Soon students will be free to truly explore the boundaries of learning using the most advanced applications whether they are at home, commuting on a train or anywhere else.

In the near future, Fujitsu will allow the CIT students and staff to glimpse into the future by trialing its Engineering Cloud environment. This is the first time that this service has been made available within a university. The environment is based on an integrated CAD concept that brings together electrical and mechanical design features. This Engineering Cloud concept uses some of the world's most advanced high-speed image compression technology, which allows for high-speed display of virtual desktops in about one-tenth the time of existing technologies.

About Fujitsu

Fujitsu is the leading Japanese information and communication technology (ICT) company offering a full range of technology products, solutions and services. Over 170,000 Fujitsu people support customers in more than 100 countries. We use our experience and the power of ICT to shape the future of society with our customers. Fujitsu Limited (TSE:6702) reported consolidated revenues of 4.5 trillion yen (US$55 billion) for the fiscal year ended March 31, 2011. For more information, please see http://www.fujitsu.com