University of the East Builds Virtual Infrastructure on Hitachi Unified Storage 100

As one of the top universities in Philippines, the University of the East (UE) prides itself on providing quality education by integrating technology into its academic environment. To upgrade its data center to accommodate high application and bring-your-own-device (BYOD) demands, the university turned to a virtualization solution from Hitachi Data Systems. Thanks to the Hitachi Unified Storage 100 based solution, UE has improved the speed of all business processes, and made the enrollment process easier.

The Challenge
While providing a high-quality education, University of the East (UE), like many universities, was challenged to keep pace with technology and an increasing user base. The university operated its centralized data center from its Manila campus. The data center employed 2 cluster servers and storage devices purchased in 2008, which were heavily impacted by the increasing number of users. With the infrastructure facing difficulties, UE campuses in Manila and Caloocan decided to upgrade the data center.

Business continuity and disaster recovery projects were carried out in Manila and Caloocan campuses to achieve a total built-in IT solution. Through these efforts, the campus gained a stronger backbone of virtualized infrastructure that can handle a larger number of users through different devices, without compromising the speed and security of data. The implementation of a virtualized environment and system upgrade allows UE to deliver services to all its constituents more efficiently.

Benefits at a Glance
■ Improved performance.
■ Easy access via BYOD.
■ Assured business continuity.

University of the East

INDUSTRY
Education

SOLUTION
Virtualization, Storage Management

HARDWARE
Hitachi Unified Storage 100

SOFTWARE
Hitachi Dynamic Provisioning

SERVICES
Provided by Trends & Technologies, Inc.

Bong Obillo, Jr.
Sr. Assistant IT Director
University of the East

"Hitachi Data Systems enabled the virtualized environment and systems upgrade, ensuring that University of the East can deliver services to its constituents more efficiently, and secure business continuity and recovery."
To create a more dynamic virtualized infrastructure that would answer the demands of the growing number of students, UE embarked on a business continuity and disaster recovery plan. The plan was designed by Bong Obillo, Jr., senior assistant director of the UE IT department, in partnership with systems integrator Trends & Technologies, Inc.

**The Solution**

To answer the university’s challenges, the joint plan employs Hitachi Unified Storage 100 (HUS 100) to serve as the backbone of the total infrastructure. HUS 100 supports the VMware-based virtualized environment. A F5 BIG-IP Local Traffic Manager acts as the infrastructure core of UE’s modern data center.

**Hitachi Unified Storage 100**

“From the set of technology qualifiers, Hitachi was chosen over the known storage solution brands in the Philippines,” said Obillo. “The UE IT technical evaluation team considered the following:

1. HDS scalability.
2. Lowest in total investment.
3. And the set of advance features, such as the dual dynamic virtual controllers.”

Hitachi Unified Storage 100 is the fastest mid-range system available in the market today with the highest IOPS at the lowest possible price. HUS 100 supports high-end storage functionality, such as auto-tiering, for faster and easier provisioning within a virtualized environment. Using Hitachi Dynamic Provisioning software on HUS 100 pools files and block storage with maximum flexibility to address the requirements of UE. Hitachi intelligent automation handles failover, load balancing, tiering and migration, which keeps UE storage operations up and running at optimal performance. HUS 100 also upgrades the data recovery and protection tools of UE, securing business transactions inside the campus, and minimizing downtime and migration concerns.

Hitachi Unified Storage 100 combines block, file and object storage in a single unified storage system that reduces complexity and maximizes cost-efficiency. HUS 100 also balances scalability that further extends UE’s investment in a unified storage system.

**VMware**

VMware has taken a holistic approach to the business continuity and IT disaster recovery management plan at University of the East. The plan enables the University to protect all virtualized applications with a comprehensive, simple, automated and cost-effective virtualization-based solution, which reduces the cost, time and complexity of IT disaster recovery management.

VMware further builds on the HUS 100 backbone to ensure high availability and eliminate data loss, especially at UE, where data growth is aggressive. VMware high-end features protect the IT assets and troubleshoot to reduce workload and hassle.

**F5 BIG-IP Local Traffic Manager**

Within the Hitachi-based UE solution, F5 BIG-IP Local Traffic Manager allows easy deployment of applications, ensures availability, accelerates application performance up to 3x, and answers security requirements.

**Technology Partner**

UE contributes the project’s continuous success in part to the expertise and collaborative efforts of systems integrator Trends and Technologies, Inc.

University of the East is now changing the way it delivers services to its community by moving up to the latest operating system versions and database applications on an enterprise level. It has implemented a highly available server and storage solution in a virtualized environment to ensure continuous services and disaster recovery for all of its campuses. Infrastructure performance
has been enhanced through the use of the latest technology in network traffic. It ensures that UE is prepared for the rapid growth in numbers of users while guaranteeing improvement in application delivery.

Virtualization has been a game-changing technology, delivering improved business responsiveness and strengthening business continuity. UE’s deployment of a virtual environment allows the university to be more flexible and agile in delivering IT services. Virtualization technology gives UE the most cost-effective solution, which helps the university meet its overall operational objectives.

The Benefits

“The immediate benefit we experienced was that students can now process their enrollment through online systems and can view their admission and status details online, without spending time traveling, especially on a busy street of the Philippines central area,” said Bong Jaramillo, IT director at UE. “From a longer-term perspective, the UE IT Team has built a stronger backbone after virtualizing the infrastructure to handle a large number of online transactions, which also ensures speed and security.”

The implementation of virtualized environment and systems upgrade ensures that UE can deliver services to its constituents more efficiently. The total IT solution also secures 100% business continuity and recovery from a potential disaster in its major campuses.

With the Hitachi-based solution, University of the East has succeeded in using technology to upgrade its quality of services, which leads the university on its path to accomplishment. UE surpasses other campuses in being the first university to adapt a virtualized system that eases the process of enrollment and speeds business transactions in the campus through BYOD. UE’s virtualization enhances the capability of synchronizing students’ priorities to ensure a high standard of education within a technologically advanced campus.

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