

S U C C E S S S T O R Y

# Hitachi Storage Solutions at Work

## Yuan Ze University

**INDUSTRY** Education

**SOLUTIONS** **Capacity Management**

**Hardware** — Hitachi Workgroup Modular Storage 100 and Hitachi Simple Modular Storage 100

**Services** — Provided by Hitachi Data Systems Partner Acer, Inc.



“After reviewing all the major brands of solutions, we concluded that the Hitachi price-to-performance ratio best meets our needs and wants.”

*Tung-Fu Chen (陳通福)  
Office of Library and Information Services  
Yuan Ze University*



# Yuan Ze University Adopts Hitachi Modular Storage to Enable Flexibility and Future Scalability

Yuan Ze University is committed to advanced technology, R&D and cultivation of elite students. IT service at Yuan Ze University needs ongoing improvement in order to serve its over 10,000 faculty members, students and alumni. To support its mission and service obligations, the university chose a Hitachi storage solution that not only serves today's requirements, but also factors in future needs and trends in order to secure return on investment and room for future growth.

Yuan Ze University aggressively pursues "Green Technology and Management" and "e-Life" through its two top-notch research centers for fuel cells and telecommunications technologies. With this approach, it is evolving into the paradigm for new universities in Asia and stays ahead of the stiff competition among the over 100 universities in Taiwan.

IT applications at Yuan Ze University also showcase how the school embraces change. For example, the university considers iSCSI a trend of the future, so it selected a Hitachi Workgroup Modular Storage 100 and Hitachi Simple Modular Storage 100 from Hitachi Data Systems to address its urgent needs and support future growth.

"We always want to try new brands, products and technologies to help strengthen our team," said Tung-Fu Chen (陳通福), Office of Library and Information Services, Yuan Ze University. "For example, all campus information systems are independently developed by our own team, and our procurement considers cost effectiveness to be most important, so we always face challenges in identifying the best solutions within budget restraints."

## Brand New Storage Resolves Old Environment Restraints

At Yuan Ze University, the most critical application is the e-mail system, which is most frequently used by faculty members

and students. Students, in particular, rely on the e-mail system in order to stay well informed by the school's administration. Moreover, in order to better serve alumni, Yuan Ze University maintains their e-mail accounts, which also use up part of the storage space.

With Web technology advancements and increasing message traffic, the 50MB mailbox space for each student has long become insufficient. Although Yuan Ze University planned to offer a 100MB space, the storage environment was not able to support the increase.

The old storage system at Yuan Ze University was purchased a long time ago and the system supplier no longer provides scalability and technology support. Scalability was impossible under the old environment; the university required a brand new storage system capable of addressing increasingly complicated applications.

For example, in order to ensure e-mail availability and reliability, Yuan Ze University singled out cluster architecture combined with a backup mechanism to ensure ongoing operation in the case of a crash. The new storage equipment needed to be stable enough in order to support the highly available cluster architecture.

## Hitachi Workgroup Modular Storage 100 Supports Expansion

At the beginning of planning, Yuan Ze University was trying to choose between optical fiber transmission and iSCSI. After an assessment based on its own needs, the school found that rapid transmission of e-mails instead of real time transmission would suffice. As a result, iSCSI, which meets the school's requirement for information access speed, was chosen.

"Scalability and service of original suppliers were the top two priorities when we were choosing storage equipment," said Chief, Section of System Development at Yuan Ze University, Chung-Cheng Tseng (曾崇城).

“Recommended by our long time partner Acer, we found that the affordability and scalability of the iSCSI solution provided by Hitachi Data Systems best meets our needs.”

Given the school's limited budget, the emphasis was on scalability factors to address the ongoing increase of mailbox capacity, as expanding an existing system tends to be far more economical than buying a new system. At present, Yuan Ze University's storage capacity on the Workgroup Modular Storage is 9TB, which can be increased to over 100TB by expanding hard disk tracks.

Two years ago, Yuan Ze University decided to increase the capacity of each mailbox from 30MB to 50MB. After jumping from 50MB to 100MB this year, however, it is expected that

backup prevents data damages resulting from mainframe failures.

“The implementation of the Simple Modular Storage will not only phase out our old, obsolete system but also establish a backup mechanism for the file server that contains school resources,” said Tung-Fu Chen.

At present, the Simple Modular Storage system not only supports the school's Web server but also incorporates into its easy and stable storage environment digitalized teaching materials as well as massive archive files that must be kept for three months in compliance with ISMS.

Yuan Ze University is also very positive about the Hitachi control program design, which eliminates the frequent failures incurred by the

**“The implementation of the Simple Modular Storage will not only phase out our old, obsolete system but also establish a backup mechanism for the file server that contains school resources.”**

Tung-Fu Chen (陳通福)  
Office of Library and Information Services  
Yuan Ze University

the capacity will need to be doubled in two years. With the Workgroup Modular Storage 100, even if capacity leapt to 200MB or 300MB, the increase would be completed in no time. The e-mail system for faculty members will also be gradually relocated to the Workgroup Modular Storage environment.

The advanced technology enables Yuan Ze University to implement many reinforcements for its storage environment. For example, the Workgroup Modular Storage system's complete hot backup function in conjunction with automatic recovery can minimize storage failures and shorten system recovery time.

## Hitachi Simple Modular Storage 100 Establishes Complete Backup Mechanism

In addition to adopting the Workgroup Modular Storage to support the e-mail system, Yuan Ze University has also added a Hitachi Simple Modular Storage 100 system to strengthen its Web and network infrastructures, providing addition storage space for important resources that were stored only on the mainframe. This

old system. Hitachi places the control program in the processor — rather than in the job program, as was the placement with the old system — to ensure normal hard disk operation in case of data damages and to maintain optimized availability.

“After reviewing all the major brands of solutions, we concluded that the Hitachi price-to-performance ratio best meets our needs and wants,” said Tung-Fu Chen. “This is because Hitachi features outstanding product specifications and scalability, offering a range of models, which allows us to select the most suitable support for our different systems. As a result, we are able to enhance IT service quality and meet the escalating expectations of the nearly 10,000 faculty members and students at our school.”

## About Acer

Acer ranks as the world's third largest branded PC vendor, designing easy, dependable IT solutions that empower people to reach their goals and enhance their lives. Since spinning off its manufacturing operation, Acer has focused on globally marketing its brand name products: mobile and desktop PCs, servers and storage, LCD monitors and high definition TVs, and handheld/navigational devices. Acer's unique Channel Business Model is instrumental to the company's continued success. The model encourages partners and suppliers to collaborate in a winning formula of supply-chain management, allowing Acer to provide customers with fresh technologies, competitive pricing and quality service. Established in 1976, Acer Inc. employs 5,300 people, supporting dealers and distributors in more than 100 countries. Please visit [www.acer.com](http://www.acer.com).

**Corporate Headquarters** 750 Central Expressway, Santa Clara, California 95050-2627 USA  
Contact Information: + 1 408 970 1000 [www.hds.com](http://www.hds.com) / [info@hds.com](mailto:info@hds.com)

**Asia Pacific and Americas** 750 Central Expressway, Santa Clara, California 95050-2627 USA  
Contact Information: + 1 408 970 1000 [www.hds.com](http://www.hds.com) / [info@hds.com](mailto:info@hds.com)

**Europe Headquarters** Sefton Park, Stoke Poges, Buckinghamshire SL2 4HD United Kingdom  
Contact Information: + 44 (0) 1753 618000 [www.hds.com](http://www.hds.com) / [info.emea@hds.com](mailto:info.emea@hds.com)

Hitachi is a registered trademark of Hitachi, Ltd., in the United States and other countries. Hitachi Data Systems is a registered trademark and service mark of Hitachi, Ltd., in the United States and other countries.

All other trademarks, service marks and company names mentioned in this document or Web site are properties of their respective owners.

Notice: This document is for informational purposes only, and does not set forth any warranty, express or limited, concerning any equipment or service offered or to be offered by Hitachi Data Systems. This document describes some capabilities that are conditioned on a maintenance contract with Hitachi Data Systems being in effect, and that may be configuration dependent, and features that may not be currently available. Contact your local Hitachi Data Systems sales office for information on feature and product availability.