

“The private cloud storage platform solution from HDS provides stable, reliable and high-performance storage for the information systems of the university.”

*Shanghai University of Traditional Chinese Medicine*



## Shanghai University of Traditional Chinese Medicine Builds on Hitachi Storage to Extend Private Cloud Storage Platform Campus-Wide

Founded in 1956, Shanghai University of Traditional Chinese Medicine is one of the first 4 Chinese medicine universities established after the People's Republic of China was founded. For the past 50 years, the university has educated various Chinese traditional medicine talents, and its alumni have spread throughout 60 countries and regions. As the university works to fulfill its mission of building a first-class, high-level research and teaching-oriented learning institution, the massive amounts of data it generates have overtaxed its storage architecture. To address this problem, the university opted to move its big data to the cloud, and chose a solution based on Hitachi Virtual Storage Platform and Hitachi Unified Storage 130 to make that happen.

### The Challenges: Massive Data, Strained Storage Resources

With over a decade of information construction, Shanghai University had built an integrated management platform, enabling IT management for all aspects of the university. The university's information system improved management and efficiency of the university, but also generated massive data, which poses potential risks: the conflict between the supply and demand of storage resources, and the possibility of data loss due to various

accidents. As the university looked for the solution it needed, it determined that IT security and protection of information assets in all phases of information construction must be guaranteed.

### Project Objectives

Shanghai University began making plans to build a secure, reliable and customized campus-wide private cloud storage platform. The objectives of building this cloud storage platform included:

- Provide storage virtualization, consolidate storage resources of any



## Shanghai University of Traditional Chinese Medicine

**INDUSTRY**  
Education

**SOLUTION**  
Cloud, Enterprise Platform

**HARDWARE**  
Hitachi Virtual Storage Platform  
Hitachi Unified Storage 130

**SOFTWARE**  
Hitachi Universal Volume Manager

**SERVICES**  
Implementation services provided by Hitachi Data Systems Global Services

### Benefits at a Glance

- End-user satisfaction: teachers and students.
- Enhanced application efficiency.
- Simplified maintenance and storage allocation.

## SUCCESS STORY

suppliers, manage all storage resources in a unified way, allocate storage resources on demand, migrate data online between different tiers of storage and media, and enable tiered storage management of data.

- Accommodate any of the university's business data, support all applications, and prevent the potential data loss caused by physical layer failures and logical layer errors.

The university planned to consolidate the storage resources in the number 10 server room of its library building and building 7 into one cloud storage platform. In this way, the university would provide centralized storage for existing core business systems. Core business data mainly comes from its smart card program, the office automation system, the library management system, the public database platform and the simulated hospital system. Primary database systems include Oracle RAC database and Microsoft® SQL Server® database.

Since the implementation of the cloud storage platform from Hitachi Data Systems, Shanghai University teachers and students report that they are more satisfied with the system. The efficiency of the university's information system and applications have been enhanced dramatically.

### HDS Delivers the Solution: Unified, Virtualized Cloud Storage

After communications and discussions with many well-known storage solution providers in the industry, the university selected the unified virtualized cloud storage platform from HDS. (See Figure 1 for the solution's topology.) Its reasons for choosing the HDS solution included:

- The HDS virtualized private cloud storage platform solutions are the most mature, reliable and widely used in the industry. Its core devices are efficient and stable. With 100% availability, they operate, without the worry of unplanned downtime.
- The HDS storage solution is well designed to utilize storage resources efficiently and provide tiered storage and data protection. Core applications are deployed in high-performance and reliable Tier 1 storage, while noncritical applications are deployed in Tier 2 storage.

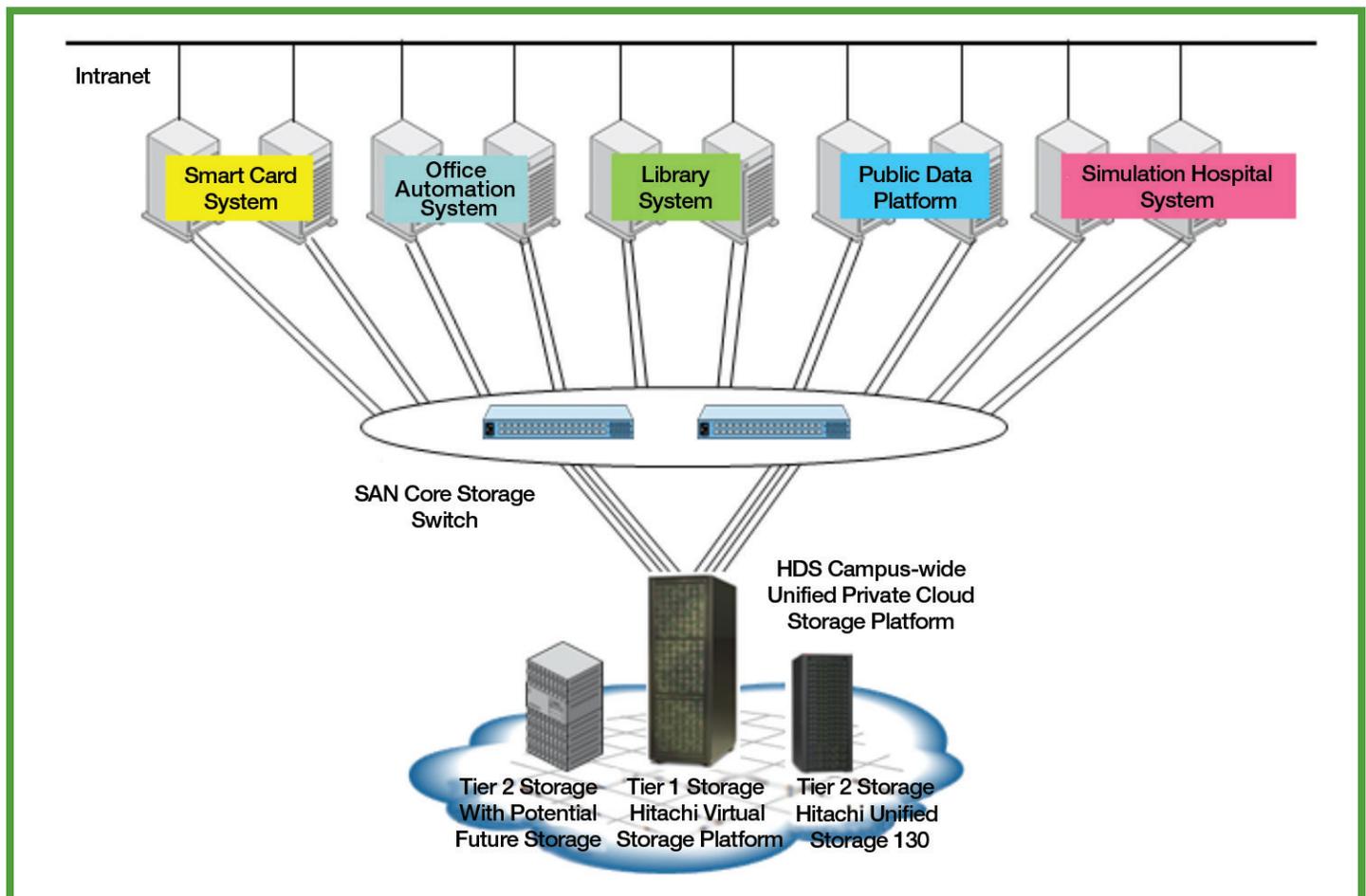


Figure 1. Hitachi Data Systems Cloud Storage Platform for Shanghai University

- Taking data protection for the core applications into consideration, the HDS solution provides effective protection for real-time mirroring at the physical layer and scheduled snapshots at the logical layer, eliminating data loss risk.
- All storage resources are managed centrally through a single storage platform and a single interface, and the capacity can be adjusted online anytime. The solution is simple, flexible and easy to operate and maintain.

With up to 100% reliability of its core storage devices, all physical devices within the cloud storage platform are highly reliable, eliminating physical failures completely. At the same time, the volume copy, mirroring and snapshot software provide logical protection, which minimizes the data loss risk caused by logical errors.

## Solution Benefits

Since the implementation of the cloud storage platform from Hitachi Data Systems, Shanghai University teachers and students report that they are more satisfied with the system. The efficiency of the university's information system and applications have been enhanced dramatically. The solution has ensured that the application system is free from performance or reliability problems, and the maintenance and allocation of the storage resources have been simplified.

## SHANGHAI UNIVERSITY INNOVATES WITH INFORMATION

- Runs all important data on Hitachi storage systems, improving overall performance and reliability.
- Enables students to make better use of school information resources: better access to library materials, online class selection, and so forth.
- Improves student activities and communications with enhanced email, use of smart cards; supports dormitory and student management with enhanced information management.

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