

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

# Hitachi Storage Solutions at Work

## Hunan Provincial Government

**INDUSTRY** Government

**SOLUTIONS** Consolidation/Simplification

**Hardware**—Hitachi Network Storage Controller™ model NSC55

**Software**—Hitachi Resource Manager™ utility package and Hitachi Dynamic Link Manager software



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*Changyuan Wen  
IT Director  
Hunan Economics Research Information Center*

# Hunan Government Supports E-Government Extranet with Storage Area Network Solution from Hitachi Data Systems

China's Hunan Province covers 210,000 square kilometers (81,000 square miles) and has a total population of more than 64 million. To reach its citizens across this region electronically, in an "e-government" format, the province first needed to resolve incompatibilities in its information systems and build an extranet to connect all the systems to the public. The Hunan provincial government recognized that doing so required a strong storage management system, for which the province turned to Hitachi Data Systems.

Since 1999, when the national Chinese government embarked on a program of modernizing government systems to deliver services and information to the public via the Web, as well as to increase communications with government, e-government has progressively become the focus of IT development in China. In 2004, the Hunan Economics Research Information Center began its project to develop an e-government extranet.

The Hunan provincial government in South China soon embarked on its major e-government effort. This involves using an

extranet to connect seven key systems as part of an effort to end unstable development efforts, uncoordinated planning, narrow application scope, and inability to share resources. The extranet's seven parts include the government affairs public resource sharing system, the government portal Web site, the Trust Hunan credit information system, the financial information exchange support system, the open government system, the provincial economic performance monitoring and analysis system, and the online joint administration examination and approval

system. The Hunan provincial government received approval for its e-government plans in 2005, at which time it began the system's construction and deployment.

The extranet systems are so huge and complex, with such high access demands that the Hunan government decided to adopt centralized data storage and management to simplify the architecture and provide the high availability needed. The government also wanted to ensure that the data management system would be easy to use, stable, and secure, which led it to Hitachi Data Systems and its Hitachi Network Storage Controller™ model NSC55. "As government affairs become more transparent and efficient, the Hunan e-government extranet will grow rapidly. Anticipating this expansion is why we required a highly efficient and easy-to-use management tool. Hitachi Data Systems provides such a tool with the NSC55 that enabled us to operate and manage the extranet while reducing the complexity of maintenance work," says Chang Yuan Wen, IT director at the Hunan Economics Research Information Center.

## High Performance for Both Today and Tomorrow

To create the secure, easily managed, highly available central storage system, Hitachi Data Systems proposed a storage area network (SAN) solution to establish a centralized information infrastructure for the e-government extranet. The core system structure uses Network Storage Controller model NSC55 high-performance disk storage and the Mediate ES4500 fiber optic switch, which together provide low cost, high security, expandability, and manageability.

Model NSC55 ensures high performance and expandability for users. With its internal bandwidth of 12.1GB/sec, the NSC55 has almost four times the bandwidth of other

systems, and its 64GB cache buffer enables performance for a multitude of applications.

As the demands on the Hunan e-government extranet grow, the NSC55 can adapt to support increased user access, increased application workload, and the adoption of new technology. One reason is that the NSC55 has expandable interface capacity, more than other entry-level storage systems. That means the NSC55 will easily be able to support future expansion of the Hunan e-government system.

## Preventing Failures with Intelligent Management

Because the province's e-government extranet involves many application servers, a concern is to prevent performance degradation or failure from heavy user demand from

## A centralized SAN solution from Hitachi Data Systems enabled Hunan Province to deliver services via an expandable extranet to its citizen base of over 64 million people.

taking down the extranet. The model NSC55 design answers the concern; with 32 processors connected via an intersecting fibre optic switch architecture, the NSC55 has no single point of failure and ensures 99.999 percent availability. In addition, the NSC55 model's intelligent early-warning management capability helps to guarantee complete availability of user data.

The Hitachi Resource Manager™ utility package is employed with the Hitachi storage to provide management tools that allow Hunan Province's storage administrators to take advantage of the full power of the NSC55. Resource Manager utility package provides both a Web-accessible graphical management interface and a command line interface (CLI) to allow easy management. It is used to

map security levels for SAN ports and virtual ports, for inter-array path mapping and RAID-level configurations, for LUN expansion and for Data Retention Utility LUN configurations (e.g. WORM configuration). It also includes performance management and troubleshooting capabilities for the NSC55, as well as an advanced set of tools for third-party application integration and optimization.

Moreover, the NSC55 offers virtualization of internal and external storage via a single management interface. This enables Hunan Province to expand their storage capacity and manage it from the NSC55's management interface for simplified storage management. To ensure there is no loss of data, the NSC55 provides mirroring and replication of all data on internal or external disk to local or remote storage to ensure continuity of user services.

As government affairs become more transparent and efficient, the Hunan e-government extranet will grow rapidly. Anticipating this expansion is why the Hunan government required a highly efficient and easy-to-use storage solution. The NSC55 and the Resource Manager utility package from Hitachi Data Systems provide a solution that delivers the performance, scalability, and flexibility the Hunan Province requires to meet the needs of its citizens.

## About Chang Hong Zarva Information Merchandise Co. Ltd.

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