

IBM System Storage DR550



Data that is kept for extended periods of time poses a challenge for many organizations. Today many companies are using non-erasable, non-rewriteable technologies to help protect against accidental or intentional alteration and/or deletion of information prior to its corporate or regulatory policy-driven expiration. Usually this data is stored on inexpensive archives and repositories, with the trend being toward storage on SATA disk and tape. As organizations address their data retention needs to comply with corporate governance and federal and local regulations, they must keep necessary documents and records available when needed. Overall, the management and control of retention-managed data can be a significant challenge when taking into account other factors such as costs, integration, performance, security, privacy and policy-based retention periods.

Highlights

- **Designed as a preconfigured, integrated solution to help store, retrieve, manage, share and secure regulated and nonregulated data**
- **Designed to offer automatic provisioning, migration, expiration and archiving capabilities**
- **Supports enterprise scalability of up to 89.6TB physical disk capacity and supports petabytes of storage with attached tape**
- **Data protection through standard data encryption option**
- **Optional synchronous or asynchronous data replication between local and remote sites**
- **Dual processor single or dual server configurations for enhanced performance**

The IBM System Storage™ DR550 is designed to help businesses meet the growing challenge of managing and protecting retention managed data and other critical information assets with operational efficiency. A smaller offering targeting small and medium businesses is also available—information on the IBM System Storage DR550 Express can be found at ibm.com/servers/storage/disk/dr/express/index.html.

Providing advanced storage management capabilities

Well suited for archiving a broad range of electronic based records, including e-mail, digital images, database applications, instant messages, account records, contracts or insurance claim documents, and other types of storage records, DR550 is designed to provide advanced storage management technology to enable the management and enforcement of data retention policies. The DR550's policy-based, archive data retention capabilities are designed to support nonerasable, nonrewritable data storage, and help address the needs of regulated industries and other businesses with long-term data retention and protection requirements.

Data encryption for enhanced security

Enabling companies to protect their data when transmitted over the network or saved to disk, encryption can provide enhanced security for businesses via 128 bit AES or 56 bit DES encryption technology. Encryption options allow the DR550 to manage encryption keys transparent to the application or allow an application to manage encryption keys externally to the DR550.

Industry-leading data retention features

The DR550 brings a number of industry-leading capabilities to the data retention marketplace and is designed to:

- *Enable management of data that has no explicit retention period, such as employee (as long as employed) and customer (as long as account is open) data, through an event-based records management feature. It can protect these records from deletion until a specific event occurs*
- *Enable data management on multiple tiers of storage including disk, tape and optical storage to provide a more cost-effective solution*

- *Allow a designated object or group of objects to be protected against the normal end of life (policy expiration) process by using a deletion hold management feature. This can be very useful in the event that a record or set of records needs to be retained for legal, audit, or other reasons.*
- *Enforce data retention policies that maintain data as nonerasable and nonrewritable until deletion is permitted by retention policy*
- *Enable users to archive and retrieve directly from or to their workstations or file servers to protected storage via the System Storage Archive Manager Client*

Disaster recovery protection

DR550 can also help protect customer data during disasters. IBM System Storage DR550 provides support for Metro or Global Mirroring. These features allow two real-time synchronous or asynchronous copies of the data to be maintained on DR550s in separate locations. IBM System Storage DR550 also provides the capability to use advanced LTO-3 WORM tape libraries to provide efficient and cost-effective copies of the

data objects and the DR550 database to support off-site data storage and recovery in the event of a failure or the need to relocate to an alternate facility.

Delivered as an integrated solution

The IBM DR550 is a comprehensive, preconfigured offering designed to help organizations store, retrieve, manage, share and secure regulated and non-regulated data. It offers archival and retention capabilities using the latest in Serial Advanced Technology Attachment (SATA) disk drives to help organizations meet new government and industry regulatory requirements.

Ordered, delivered and installed as an integrated unit, the IBM DR550 storage offering provides upgrade options for connectivity and storage capacity, helping to manage up to 89.6TB of physical disk storage capacity per system. It also supports external storage devices such as optical or tape systems for expansion to hundreds of TB in storage capacity. Because tape is much lower cost than disk storage, it is well suited

for long-term retention of large quantities of archive information. The DR550 uses policies to manage information across both disk and tape systems, which enables it to help deliver exceptionally low overall cost of ownership while also delivering outstanding performance.

Offering enterprise-class reliability, scalability and performance

Operating in conjunction with enterprise content-management applications,² the DR550 helps enable centralized management through a single interface to support storage allocation and address application demands. The architecture of the DR550 is designed to bring enterprise-class reliability, scalability and performance to open systems and mainframe environments. It features hardware redundancy and automatic data retention capabilities, as well as Simple Network Management Protocol (SNMP) monitoring enhancements for proactive system problem prevention and correction.

Technology for an on demand era

In an era in which businesses are integrating processes across the enterprise, the DR550 can help companies become on demand businesses, responding with flexibility and speed to customer demands, market opportunities or competitive threats. The solution's integration, support of open standards, and automatic data retention capabilities can help companies become better positioned to meet the on demand requirements of storing, retrieving, managing, sharing and securing retention managed data.

Optional IBM Global Services

At the intersection of technology and business, Business Consulting Services (BCS) from IBM Global Services can assist clients in developing and implementing strategies for storing, retrieving, managing, sharing and securing retention managed content data on demand. These strategies can help companies address critical issues such as financial and regulatory reporting and compliance.

At the same time, IBM Global Services can help clients take a broad-based approach to managing data through enterprise-wide performance management and business intelligence services in a way that supports the basic building blocks of planning, managing and optimizing the business. These solutions can be designed to link performance measures with strategy and cascade these measures and analysis throughout the organization in a timely, cost-effective manner providing useful, relevant information throughout the enterprise.

IBM Global Services can provide the following optional DR550 services:

- *IBM “carefree” services bundle includes onsite software/firmware upgrades and three year warranty repair and maintenance for IBM System Storage DR550 (24x7, four hour response). This bundle provides:*
 - *Three year warranty maintenance service for all DR550 components, including IBM onsite repair, (three year warranty maintenance services are also available as a separate offering).*
 - *Onsite software/firmware upgrades for up to two onsite visits per year, including firmware and software component upgrades and patches to provide proactive maintenance and ensure DR550 system currency.*

- *IBM RAID Conversion Services for the IBM System Storage DR550 provides conversion assistance from the default RAID 5 parity protection configuration to an enhanced disaster recovery protection mirrored RAID 10 configuration.*
- *IBM Implementation Services offering for the IBM System Storage DR550 provide assistance in planning, installing, and configuring new System Storage data retention equipment or capacity upgrades.*
- *Implementation Services for Metro or Global Mirroring for IBM System Storage DR550.*
- *IBM MES services that provide options or upgrades for existing installations.*

IBM System Storage DR550 at a glance

Servers

- Single- and dual-server configuration
- Based on IBM dual processor @server pSeries® POWER5™ platform
 - Fibre Channel adapters
 - Ethernet adapters

Storage controller

- One or two IBM TotalStorage DS4100s (depends on capacity)
- Maximum of 14 IBM TotalStorage DS4000 EXP100 units, each with 400GB SATA hard disk drives
- Optional Metro Mirror or Global Mirror for replication and 2005-B16 FC switches for the DR550 with Mirroring option
- Fibre Channel switch—IBM 2005-B16
- IBM 7014 rack model T00
 - Rack security feature
 - Additional power distribution units (PDUs)

Software

- IBM AIX®, Version 5.3
- IBM System Storage Archive Manager, Version 5.3
- HACMP™ 5.3 (Dual-server configuration)

RAID

RAID level 5

- Optional RAID 10 with Services offering

Capacity

Single-server - 5.6 and 11.2TB, dual-server - 5.6, 11.2, 22.4, 44.8 and 89.6TB configurations

For more information

Contact your IBM representative or IBM Business Partner, or visit

- ibm.com/totalstorage/dr550
- ibm.com/eserver/express



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¹ For more information about System Storage Archive Manager, visit ibm.com/tivoli

² Please refer to our DR550 Interoperability Matrix at ibm.com/servers/storage/disk/dr/interop.html for up-to-date interoperability listings.