

## IBM System Storage DR550



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### Highlights

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- **Repository for all kinds of content—structured and unstructured**
- **Policy-based and event-based data management protects information against intentional or accidental deletions or modifications**
- **Maintains data as non-erasable and non-rewritable until deletion is permitted by retention policy**
- **Scales up to 224 TB with disk and petabytes with attached tape**
- **Offers low TCO by using multiple storage tiers (disk, tape, optical) within an archive**
- **Enhanced security and protection with disk and tape encryption options**
- **Deletion Hold feature to retain content for legal or audit reasons**
- **Supports major archiving applications**
- **Award winning and industry proven**

With the ever-increasing regulations surrounding long-term data storage and accessibility, IT departments are looking for advanced archiving technologies to manage data throughout its lifecycle, guaranteeing data retention, data authenticity, security and end-of-life destruction. Many companies use non-erasable, non-rewriteable technologies to help protect against accidental or intentional alteration and deletion of information prior to its corporate or regulatory policy-driven expiration. Usually this information is stored in inexpensive archives and repositories, with the trend being toward storage on SATA disk and tape.

As organizations address their information 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 business information can be a significant challenge when taking into account other factors such as costs, integration, performance, security, privacy and policy-based retention periods.

The IBM System Storage™ DR550 is designed to help businesses meet the growing challenge of managing and protecting business information with operational efficiency. Information growth poses a challenge for companies, and archiving inactive or just-in-case (JIC) data off the primary storage to a DR550, which uses low-cost disk, tape and optical media, can help reduce the administrative burden of backing up and managing primary storage and leverage higher cost storage assets more effectively. Retaining business information on the DR550 reduces the cost of storing data over the long term and provides an alternative level of data protection.

#### **Providing advanced storage management capabilities**

The DR550 is designed to provide advanced storage management technology to enable the management and enforcement of data retention policies. It is well suited for archiving a broad range of electronic records, including e-mail, digital images, database applications, instant messages, account records, contracts, insurance-claim documents and other types of storage records. The DR550's policy-based,

archive data retention capabilities are designed to support non-erasable, non-rewritable data storage and help address the needs of regulated industries and other businesses with long-term data retention and protection requirements. The optional DR550 File System Gateway offers file based archiving with the DR550 and is designed to provide an NFS and CIFS file system interface to applications.

#### **Data encryption for enhanced security**

Enabling companies to protect their data when transmitted over the network or saved to disk or to tape, DR550 encryption can provide enhanced security for businesses via 128-bit AES or 56-bit DES encryption technology.

Encryption options also allow the DR550 to manage encryption keys transparent to the application or allow an application to manage encryption keys external to the DR550. The DR550 also can manage the encryption keys for the tape encryption capabilities offered with the IBM System Storage TS1120 and LTO-4® tape drives. The encryption on the TS1120 and LTO-4 tape drives is designed to allow for encryption within the drive and encryption key management independent of the application.

#### **Data shredding for additional security**

For additional security, IBM System Storage Archive Manager (SSAM) offers optional shredding of sensitive data. After client data has been deleted, it might still be possible to recover it. For sensitive data, this condition is a potential security exposure. The destruction of deleted data, also known as *shredding*, is the explicit overwrite of deleted data to make it difficult to discover or reconstruct that data later.

#### **Industry-leading data retention features**

The DR550 brings a number of industry-leading capabilities to the information-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 must be retained for legal, audit or other reasons.*
- *Enforce data retention policies that maintain data as non-erasable and non-rewritable 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.<sup>1</sup>*

#### **Disaster recovery protection**

The DR550 can also help protect customer data during disasters. It provides support for Enhanced Remote Mirroring. This feature allows two real-time synchronous or asynchronous copies of the data to be maintained on DR550s in separate locations. The DR550 also provides the capability to use advanced LTO-3® or LTO-4 WORM tape libraries to provide efficient and cost-effective copies of the data objects, and enables 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.

#### **Leveraging tiers of storage**

The IBM DR550 is a comprehensive, preconfigured offering designed to help organizations store, retrieve, manage, share and secure regulated and non-regulated data. Ordered, delivered and installed as an integrated unit, the DR550 storage offering provides upgrade options for connectivity and storage capacity, helping to manage up to 224 TB of physical disk storage capacity per system. It also supports external storage devices such as optical or tape systems for expansion to hundreds of terabytes in storage capacity. Because tape costs much less 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 delivering outstanding performance.

#### **Offering enterprise-class reliability, scalability and performance**

Operating in conjunction with enterprise content-management applications, 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 monitoring via IBM Director 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 business information.

### Optional IBM services

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

At the same time, IBM Global Technology 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 on-site software/firmware upgrades and three-year hardware warranty and software maintenance for IBM System Storage DR550 and DR550 File System Gateway (24x7, four-hour response). This bundle provides:*
  - *Three-year software maintenance and hardware warranty service for all DR550 components (Three-year maintenance services are also available as a separate offering).*
  - *Three year contract for on-site 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 Implementation Services offering for the IBM System Storage DR550 provides assistance in planning, installing and configuring new System Storage data-retention equipment, including DR550 File System Gateway Hardware/Software.*

- *Implementation Services for Enhanced Remote Mirroring for IBM System Storage DR550.*
- *IBM MES services that provide options or upgrades for existing installations.*

### Business benefits

The DR550 is an award-winning, industry-proven information-retention solution for medium and large enterprises across the globe. The DR550 offers a secure storage archiving repository where highly regulated industries and industries with long retention needs can benefit the most. The DR550 can help businesses:

- **Address regulatory compliance and reduce business risk.** *Securities and Exchange Commission Rule 17a-4(f) and a similar regulation set forth by the Commodity Futures Trading Commission specifically require a non-rewriteable, non-erasable recording process. However, most regulations related to electronic records require that the integrity of the records be preserved for the required retention period. The information archived to the DR550 is protected against being overwritten, erased or altered for the required retention period.*

- **Operate with efficiency.** *It is costly to keep all archived data in a nearline storage throughout its retention period. The DR550 is designed to support transparent migration of data from disk to tape. It helps take the administrative burden of managing the archived data while keeping down operational costs for the long term.*
- **Achieve lower TCO.** *The DR550 uses a true storage mix—disk, tape, optical—within its archive. Tape is still a lower cost option than disk and offers a longer media life. For long-term retention, data needs to be migrated to newer media and associated technologies, a significant cost factor in TCO. The DR550 helps provide a built-in media and technology migration capability that mitigates those cost issues.*
- **Secure and protect their business information.** *The DR550 offers enhanced security with encryption for both disk and tape storage with the option for transparent key management done by the DR550 or by the application.*

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## IBM System Storage DR550 at a glance

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### Model DR1

- IBM 25U high rack
  - Rack security feature
  - Power control assembly (PCA)
- Single IBM System p5™ POWER5+™ server running AIX®, Version 5.3
- Starting capacity: 0.88 TB (.73 TB usable), with 8 TB increments
- Maximum capacity supported: 48.88 TB raw (39 TB usable capacity)
- RAID Level 5
- IBM System Storage Archive Manager<sup>1</sup>, Version 5.5.0
- IBM System Storage DR550 File System Gateway (optional)

### Model DR2

- IBM 36U high rack
  - Rack security feature
  - Power control assemblies (PCAs)
- Single or Dual IBM System p5 POWER5+ server running AIX, Version 5.3
  - IBM HACMP™ 5.3 (Dual-server configuration)
- IBM System Storage Archive Manager<sup>1</sup>, Version 5.5.0
- IBM System Storage SAN 16B-2 Fibre Channel switch
- Starting capacity: 8 TB (6 TB usable), with 8 TB increments
- Maximum capacity supported: 244 TB raw (182 TB usable)
- RAID Level 5
- IBM System Storage DR550 File System Gateway (optional)

### Optional systems

Tape Systems: LTO Gen 3 or Gen 4, TS1120, many others  
 Optical systems: IBM 3996, others  
 \*\*DR550 Single Node systems support IPv6\*\*

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## For more information

Contact your IBM representative or IBM Business Partner, or visit

[ibm.com/systems/storage/disk/dr/](http://ibm.com/systems/storage/disk/dr/)

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<sup>1</sup> For more information about System Storage Archive Manager, visit [ibm.com/software/tivoli](http://ibm.com/software/tivoli)

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