

HSM

HSM archive platform manages the lifecycle of data across multiple storage levels. HSM provides the foundation for a resilient 3-2-1 archive strategy by combining fast RAID backed by a secure optical, tape or CAS archive and complete offline media management. No other archive solution on the market supports the same range of storage devices, providing long term hardware independence.

Enterprise Storage Management

HSM provides all the functionality of QStar's SntrySTR appliance in an unbundled software configuration. The HSM archive and data management software platform can be installed on a wide range of operating systems including: Windows, Sun Solaris, HP/UX, IBM AIX, Linux and Apple Mac OS X.

QStar has been providing enterprise archive and data management solutions to corporations and government agencies around the world for more than two decades. HSM integrates QStar's field proven software technology into an archive appliance with a very low Total Cost of Ownership.

HSM preserves digital assets by managing their lifecycle across RAID, optical and tape storage systems. In combination with optional encryption and digital signature features, it delivers a highly secure environment that protects record authenticity and maximizes data longevity. Independent of storage hardware, HSM has been designed to keep pace with growing archives through non-disruptive expansion from a few terabytes to petabytes. HSM also supports green data center initiatives through the deployment of highly efficient automated libraries that dramatically reduce power consumption and cooling costs.



FEATURES

- › OS independent archive platform
- › Integrated multi-tier storage support
- › Automated data lifecycle management
- › Online & offline storage management
- › Highly scalable capacity & functionality
- › Storage independent architecture
- › Optional encryption & digital signature
- › Optional mirroring & data replication

BENEFITS

- › Promotes 3-2-1 archive best practices
- › Optimizes storage resource utilization
- › Reduces demand for storage hardware
- › Eliminates the need for archive backup
- › Provides a foundation for compliance
- › Enables cost effective expansion
- › Supports greener storage technologies
- › Delivers low Total Cost of Ownership
- › Ensures long term investment protection

The 3-2-1 Archiving and Data Protection Best Practice

The 3-2-1 Best Practice provides a technology independent framework for the deployment of a resilient professional archive. Endorsed by leading storage analysts, the 3-2-1 Best Practice recommends that a professional archive retain 3 copies of all critical data, these copies should be archived on 2 different storage technologies, with 1 copy offsite on removable media. This simple yet powerful strategy in combination with a QStar's archive platform optimizes IT infrastructure, reduces cost, and provides the foundation for regulatory compliance.

Learn more about the 3-2-1 Best Practice at www.qstar.com/321_bestpractice.html



HSM

Simple Integration and Management

The HSM archive platform is managed through an easy-to-use interface, allowing administrators to control the archive from anywhere, at any time. A HSM archive is presented as a network mountable file system for transparent integration with host applications. Data written to the archive file system is automatically migrated between a high speed integrated disk or RAID cache and secure removable storage. This architecture provides quick retrieval for more recently accessed data while ensuring the long term preservation of the archive.

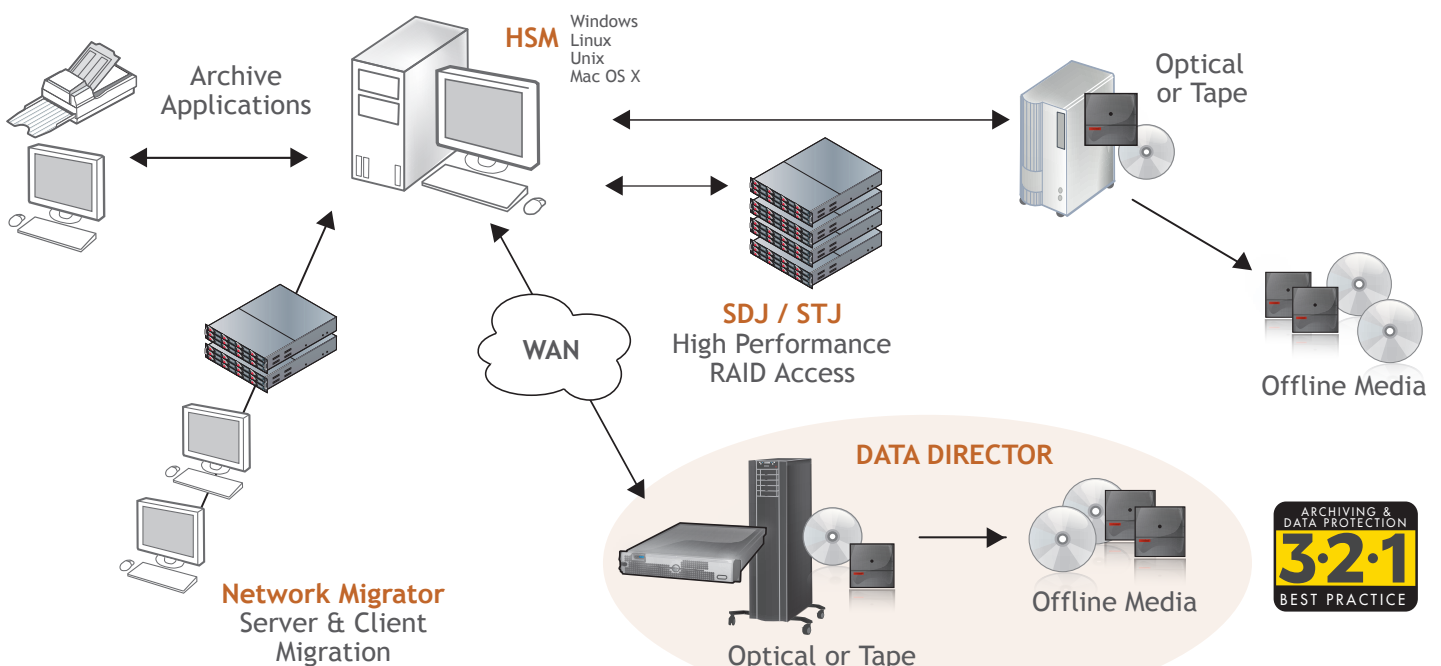
The HSM archive can be divided into multiple volumes represented by the directory structure of the archive file system. This allows data to be easily categorized by different departments, users, projects or time frames. Optional retention periods and security policies can be set for each volume, and archive capacity can be restricted by volume or can be set to expand dynamically.

In support of the 3-2-1 Archive Best Practice, many organizations use QStar's mediacopy feature to automatically create a duplicate copy of selected archive volumes for offline and offsite disaster recovery. In addition, older data sets that are infrequently accessed can also be taken offline to a deep archive. HSM provides complete offline media management by tracking all offline data and prompting an operator to import the appropriate media when a request is received. Offline media enables very cost effective archive expansion and disaster recovery strategies.

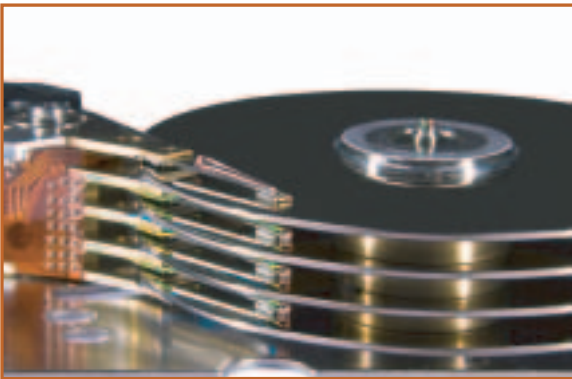
HSM is certified for a wide range of applications and deployed across many industries including: medical/PACS, financial services, life science and drug development, manufacturing, broadcast, and government record management.



QStar Archive & Data Management Solutions



HSM



Archive Authenticity and Security

The HSM platform provides a range of security features designed to meet the specific needs of each organization. In order to meet regulatory or legal obligations, companies must be able to demonstrate that their archive records have not been altered. HSM supports all leading manufacturers of true WORM (Write Once Read Many) optical storage media and WORM magnetic tape and disk devices. The use of WORM technology prevents the deliberate or accidental modification of data and the QStar platform provides an audit trail infrastructure for reporting purposes.

For more advanced file level security, QStar also offers data encryption and digital signature options. Encryption ensures that individual files cannot be accessed without the proper security key to unlock the file. QStar's implementation uses state-of-the-art AES encryption technology with a public key / private key (Symmetric) infrastructure. A SHA1 algorithm with time stamping is employed with QStar digital signature option to guarantee the integrity of signed digital documents.



Archive Resilience

As an optional feature, Data Director (DDR) extends the disaster prevention capabilities of an HSM archive by creating greater system resilience and higher data availability as part of a 3-2-1 archive strategy. Data Director uses advanced transaction level synchronous mirroring technology to ensure that data is continuously written on two storage systems within a site or across the globe. Data Director is available with multiple real-time mirroring options that include media mirroring within a single library (DDR1), device mirroring within a single site (DDR2), and site mirroring across multiple geographic locations (DDR3).



Advanced Performance

Simulated Disc or Tape Jukebox (SDJ / STJ) extend the functionality of HSM by creating a mirrored multi-level archive using mixed storage technologies. In combination with Data Director, SDJ / STJ can simultaneously mirror archive data on magnetic disk storage (RAID, NAS, CAS) and to a secure optical or tape library. This provides very fast access to archive records from disk storage with secure retention, and an extra level of system resilience mirroring to optical or tape.

Remote Data Management

Network Migrator adds heterogeneous server and client data migration services to stand alone applications or to archives managed by HSM. Utilizing advanced policy management, less frequently used files stored on distributed servers or clients can be automatically migrated to the central archive while remaining fully accessible from their local file systems.

A combination of file and file system attributes can be used to control the movement of data including: file modification date, file extensions, regular expression searches, and high-water marks. Once defined, data is migrated to the designated storage device and when archive retention dates have been met, files are released for managed or automatic deletion at the end of their lifecycle.

HSM and HSM Lite

The HSM software is available in Full and Lite configurations. The Lite version is based on the same robust HSM software platform, but offers a reduced feature set for those customers with simpler archive requirements or limited budgets. Incremental functionality can be added to HSM Lite at any time using extra cost modules.

HSM Functionality	HSM Lite	Full HSM
Single Volume View	X	X
Automated Data Migration	X	X
Scheduled Archiving	X	X
Transaction Logging Cache	X	X
Media Transportability	X	X
Number of Libraries per Server	4	8
Cache Size per Volume Set – 32bit	10GB	512GB
Cache Size per Volume Set – 64bit	10GB	4TB*
Managed Volume Sets per Server	4	100*
Disk or Tape Copy	Module 1	X
Offline Media Management	Module 2	X
Library Magazine Support		X
Media Exchange within Library		X
Data Compaction	Module 3	X
NFS Support for Windows	Module 4	X
Grace and Retention Period Options		Option
Volume Set Library Spanning	N/A	X
Dated Mount Capable	N/A	X
Data Director Upgrade Option	N/A	Option
Data Encryption	N/A	Option
Digital Signature	N/A	Option

* – Recommended maximum configuration



SECURING THE FUTURE OF YOUR DATA®

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