QStar
HSM

Archive Management Software

SCALABLE, ACCESSIBLE, SECURE ENTERPRISE ARCHIVING

Data storage requirements grow exponentially each year; the fastest growing segment being unstructured data. Users are producing an unprecedented amount of content, applications are becoming more graphics intensive, and files are getting larger. Determining how to manage, store, and protect this valuable data, while still making it easy to access when needed, is a constant challenge for data center managers worldwide.

Backup
is **NOT**
Archiving!

Backup manages short-term risk and provides a means for disaster recovery. Archiving is a business strategy to manage long-term risk, ensuring that valuable historical data can be accessible to users and applications while, in the event of an audit or e-discovery request, data remains authentic and secure for years to come.

At QStar we say backup is for 'Recovery' and archiving is for 'Discovery'. Backup and archiving are complementary when deployed in a balanced environment. Instead of continuously backing up all files, move static files from primary storage onto managed archival storage. This will result in faster backup and restore times, as well as maintaining the security and accessibility of archived data.

QStar HSM ARCHIVE MANAGEMENT SOFTWARE

Easily scalable up to the most demanding enterprise environments, the QStar archive management software can manage and archive a massive number of files on any archive storage technology (tape, optical, CAS, cloud, removable hard disk) within any open system environment; Windows, UNIX, Linux or Mac OS X.

QStar HSM creates an 'Active Archive' by virtualizing one or more archive technologies behind a file system which can be shared out using standard Windows or Linux file sharing protocols. As the archive is presented as a file system, users and applications can easily search, find, and recall data directly from the archive, without the need for administrator intervention or an API.

NETWORK
F:/

Server with disk cache
Windows, Linux, UNIX, Mac

Archive Storage
Disk, Tape, Optical, CAS
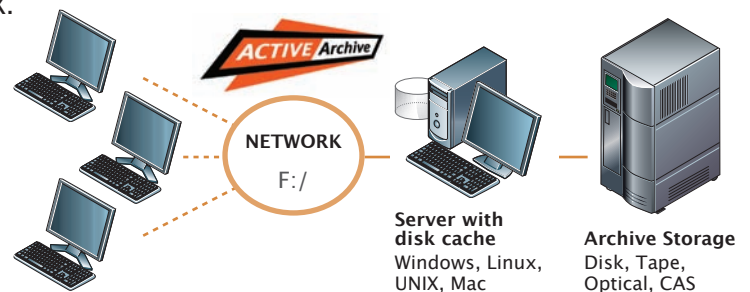
FEATURES	BENEFITS
• Archive is presented as a standard file system	• Users and applications can access files directly from archive
• OS independent archive platform	• Faster backup and recovery
• Storage independent architecture	• Provides a foundation for e-discovery
• Highly scalable capacity & functionality	• Reduces storage costs
OPTIONAL	• Optimizes storage resource utilization
• Encryption & digital signature	• Eliminates the need for archive backup
• Mirroring & data replication	• Enables cost effective expansion
• Policy-based tiered storage and data migration	• Supports greener storage technologies

HSM Archive Management Software

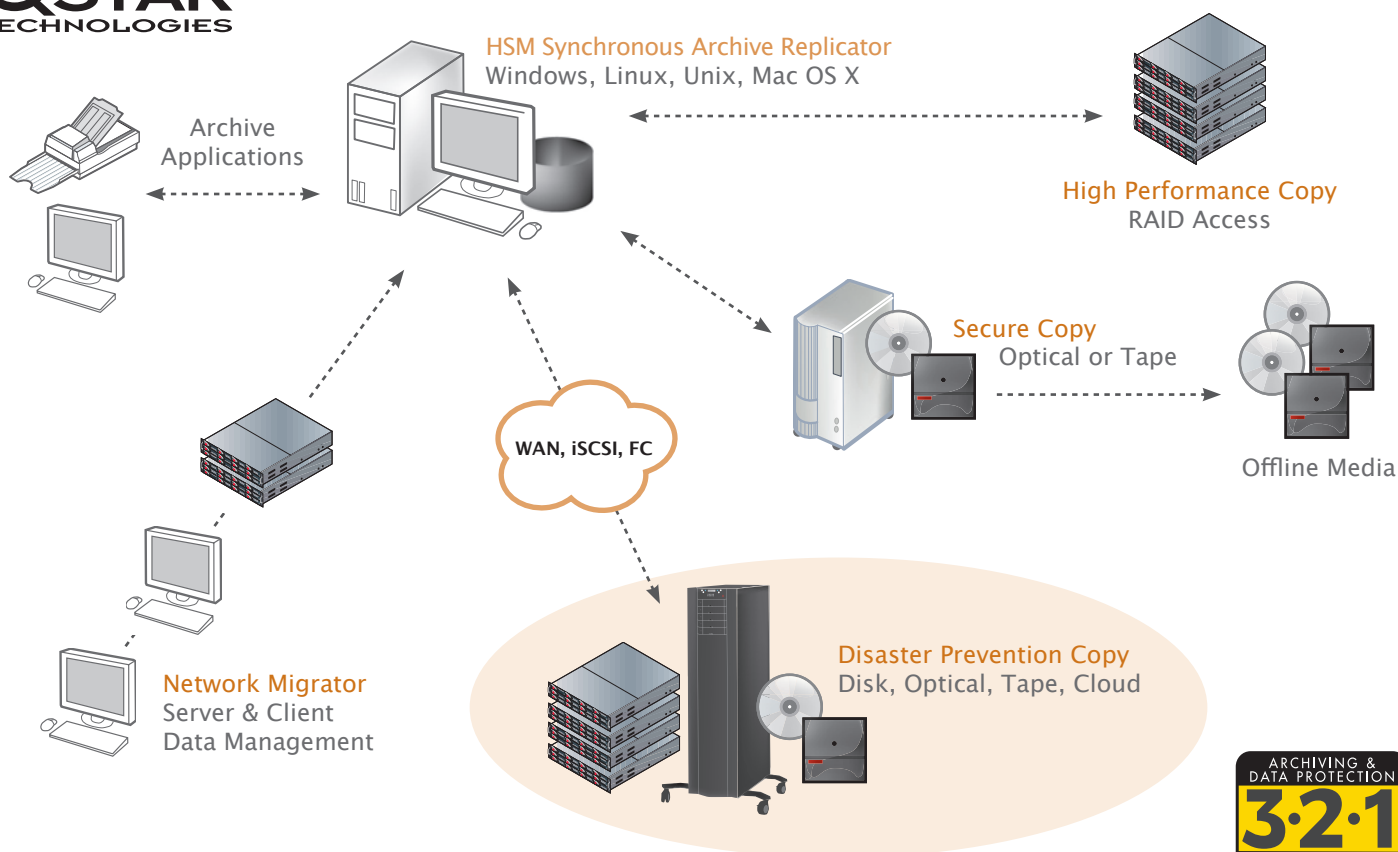## SIMPLE INTEGRATION AND EFFICIENT ARCHIVE MANAGEMENT

QStar HSM Archive Management Software is managed through an easy–to–use interface, allowing administrators to control the archive from anywhere, at any time. The 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 archive storage. This architecture provides quick retrieval for more recently accessed data while ensuring the long term preservation of the archive.

The QStar 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.

The modular platform supports incremental capacity expansion from a few terabytes to petabytes. Advanced features such as replication, real–time mirroring, file encryption, and digital signatures can be easily added. This unique approach gives QStar customers a long term data archive strategy with the agility they need to evolve in changing market and financial conditions.

QStar Hybrid Archive & Data Management Solutions

QSTAR® TECHNOLOGIES

Archive Applications

HSM Synchronous Archive Replicator
Windows, Linux, Unix, Mac OS X

High Performance Copy
RAID Access

Secure Copy
Optical or Tape

Offline Media

WAN, iSCSI, FC

Network Migrator
Server & Client
Data Management

Disaster Prevention Copy
Disk, Optical, Tape, Cloud

ARCHIVING & DATA PROTECTION
3·2·1
BEST PRACTICE

HSM Archive Management Software

QStar HSM ARCHIVE STORAGE MANAGEMENT SOFTWARE CREATES A FOUNDATION FOR BUILDING A 3-2-1 ARCHIVE

QStar is leading the industry with a vision for the **3-2-1 Archiving and Data Protection Best Practice**. This independent framework provides a strong and practical foundation to build a resilient archive strategy.

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. 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

CREATE A 3-2-1 ARCHIVE THAT BEST SUITS YOUR BUSINESS NEEDS

Basic configuration

In support of the 3-2-1 Archive Best Practice, the use of QStar's mediacopy feature automatically creates 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.

Resilient Disaster Prevention

QStar Synchronous Archive Replicator or **QStar Data Director** can be installed to extend 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.

Synchronous Archive Replicator synchronously replicates data to up to four heterogeneous archive storage technologies, using a mix of proprietary and industry standard file systems, within a single site or across multiple geographic locations. In the event of a replica failure, the Synchronous Archive Replicator tools provide re-synchronization options. This solution promotes no vendor lock-in to a proprietary file system and prevents disruption or added cost by automatically replicating to newly added storage, without the need for migratory software. Synchronous Archive Replicator can be added in front of an existing supported archive, allowing data to be replicated to a secondary archive store (for example to tape), located locally or remotely, without disruption to the existing archive.

Data Director uses 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).

Archive Authenticity and Security of WORM technology

QStar HSM provides a range of security features designed to address the specific needs of each organization. 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 WORM (Write Once Read Many) technology. The use of **WORM technology** prevents the deliberate or accidental modification of data and QStar 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. Time stamping is employed with QStar digital signature option to guarantee the integrity of signed digital documents.

Policy-based Tiered Storage Migration and Management

QStar Network Migrator
QStar HSM Archive Storage Management software, Data Director and Synchronous Archive Replicator can manage the archive behind many archiving applications. To facilitate the migration of static files from primary storage into the archive storage, organizations can deploy QStar Network Migrator. This policy-based software creates a tiered storage model and manages the location, retention and replication of data throughout its lifecycle.

HSM Archive Management Software

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

What our customers say:

"QStar's standard file system interface makes application integration simple, saving us time and effort while providing the flexibility to make changes as the archive evolves. It's also critical that the archive be reliable since we have strict deadlines for our translated content. Our experience with the QStar HSM software has been positive."
Discovery Communications
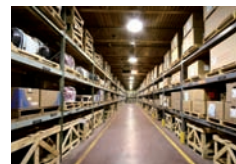
PLATFORM COMPATIBILITY	Supporting over 20 different versions of the following operating systems: Windows, UNIX, Linux, Mac OS X
NETWORK PROTOCOLS	NFS, CIFS, HTTP, FTP
SERVER PLATFORM	32 or 64 bit server platforms
HARDWARE SUPPORT	All archival storage providers of tape, optical, CAS, RAID, NAS, Cloud and removable disk
SOFTWARE SUPPORT	QStar software integrates transparently with email, SharePoint, PACS, document, audio, video and database archiving applications.

More detailed information about system requirements, supported hardware and technology partners is available on www.qstar.com

QStar support services

QStar offers a full range of maintenance programs, support services and training worldwide.
For more information contact your QStar sales representative or visit our website: www.qstar.com

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