

A grayscale photograph of a modern office interior. The scene is dominated by glass walls and partitions, creating a bright and open atmosphere. In the foreground, a meeting room is visible, featuring a dark table and several black office chairs with casters. The ceiling has recessed lighting panels. A large blue rectangular overlay is positioned in the center of the image, containing the title text.

QUANTUM STORNEXT 6

April 2017

Quantum.

StorNext-Powered Scale-out Tiered Storage Portfolio



StorNext

Third-party Public and Private Cloud

Xcellis Workflow Storage

STORNEXT DATA MANAGEMENT



STORNEXT DATA MANAGEMENT



Artico Archive Appliance

Lattus Object Storage

StorNext AEL (Tape)

ACCESS

PERFORMANCE

LOW-COST CAPACITY

StorNext's Rich Media, Unstructured Data Growth Markets



Media & Entertainment

Post Production

Animation

Sports Video

Corp Video

Ad Agencies

Surveillance & Security

Law Enforcement

Critical Infrastructure

Retail

Higher Education

Technical Workflow

Satellite & Telescope Imagery

Energy Research

Artificial Intelligence

University Research

Unstructured Data Archive

Manufacturing

Automotive

Life Sciences

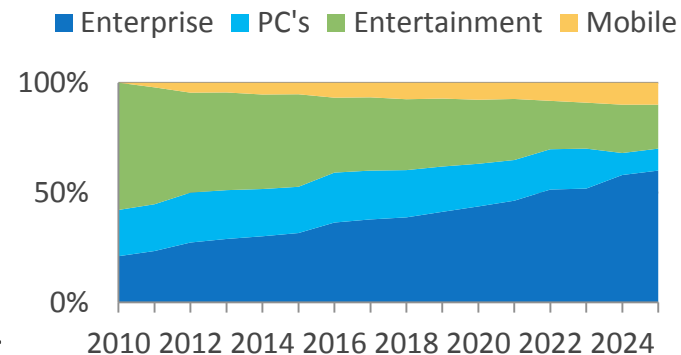
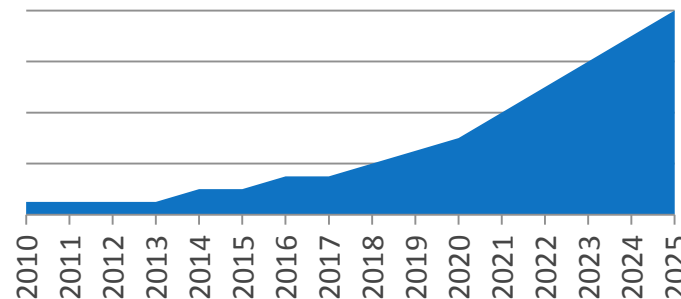
ECAD

- ▶ StorNext 5.4 (December 2016)
 - FlexTier public and private cloud integration options
 - Simplified integration of asset/data management and data sharing applications
- ▶ 4K reference architectures (March 2017)
 - Different disk and flash configurations based on stream count and compressed/uncompressed files
- ▶ **StorNext 6 (April 17, 2017)**
 - **Significant enhancements delivering unparalleled combination of high performance and advanced data management**
 - **Features specifically designed to improve collaboration, optimize performance and simplify management of large, data-intensive workloads**

Unabated Data Growth is Fact of Life



- ▶ By 2025, global datasphere will grow to 163ZB; 10X from 2016
- ▶ Percentage of data considered critical is increasing, placing performance and capacity pressure on *all* storage tiers
- ▶ Enterprises will shoulder bulk of this data avalanche, requiring modern scale-out storage infrastructure and advanced data management



#1

Simplifying storage is a top priority

71%

Say that storage systems were complex and highly fragmented

92%

are worried about managing storage costs and maintaining performance requirements as result of data growth

- ▶ Tunable performance at drive, array and volume level
 - Examples: cache, i-node, LUN, block size settings
- ▶ Highly-optimized metadata performance
- ▶ Flexible platform and connectivity support
 - SAN: NAS, InfiniBand, Block over IP
 - Linux, Windows and macOS
- ▶ Performance + RAID 6 protection
 - Faster than other RAID 5 implementations and more reliable
- ▶ Excellent performance scaling linearity
 - Scale-up or scale-out
- ▶ Integrated object, tape and cloud archival
 - Protect high-value content



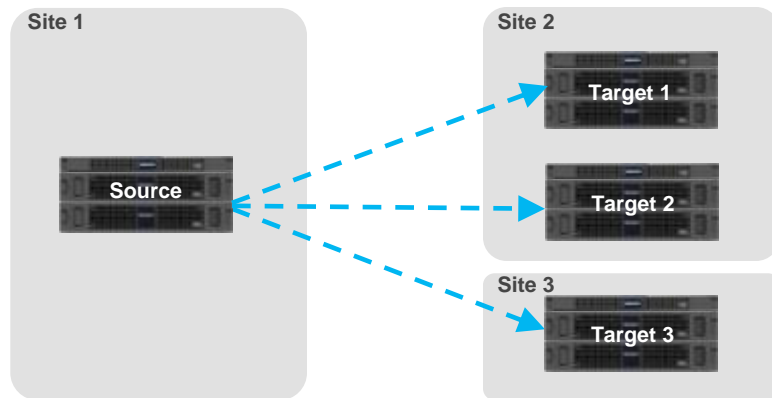
- ▶ Multi-site file replication and sharing
 - FlexSync™
 - FlexSpace™
- ▶ Enhanced StorNext-client functionality
 - Quality of Service (QoS)
 - Client offline archive status/retrieval
- ▶ Other advanced data management elements
 - File copy expiration and selectable retrieve order
 - File system auditing



- ▶ Synchronized point-in-time file copy from file system to file system
- ▶ Fast and efficient synchronization (peer-to-peer)
 - Metadata database enhancements allow for sync without walking source or target file systems
 - Performance scales with file system change rate, not file count (multi-threaded)
- ▶ Flexible configuration
 - Powerful scheduler allows for granular automated synchronization
 - Synchronize a single source to multiple targets or vice versa
- ▶ Lightweight intuitive GUI
 - “Set and forget” ease of configuration
 - Efficient single button recovery
 - Can also script commands via CLI

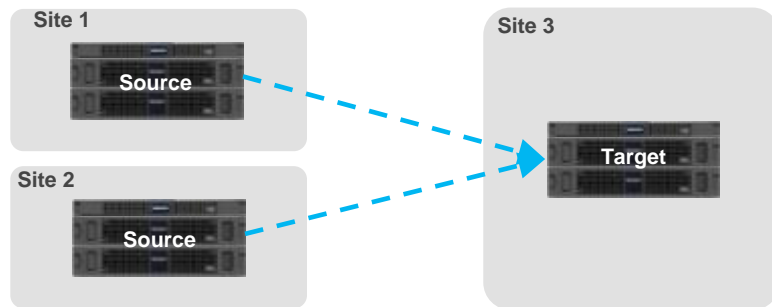
► Collaboration

- Create synchronized copies of varied datasets and share across geographically dispersed teams
- Enables fast local access



► Data Protection

- Easily create synchronized point-in-time copies on remote systems
- Synchronizations can be scheduled at virtually any interval

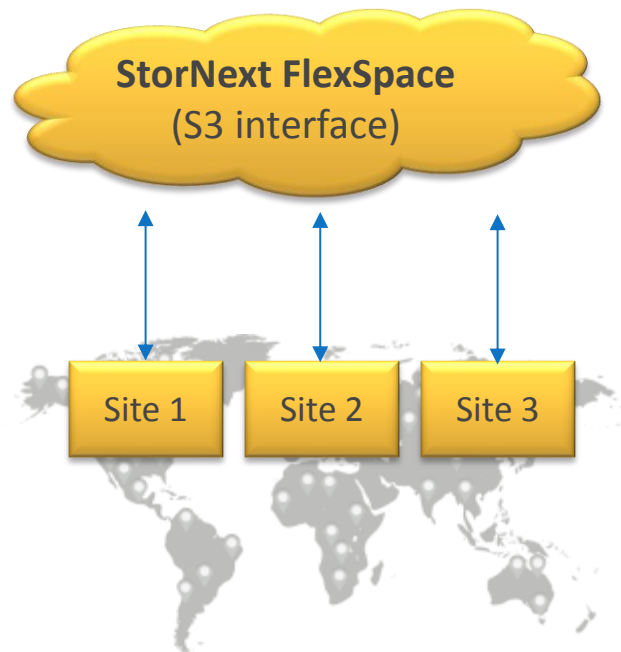


► Description

- Quantum unique software enables distributed, collaborative workflows, automated or user-initiated
- Uses S3-based object store repositories
 - Built-in support for Lattus
 - FlexTier for public clouds and 3rd-party object storage (private clouds)

► Benefits

- Project-based collaboration
- Archive and sharing: multiple sites concurrently sharing (read-only) data



Client-Based Quality of Service (QoS)



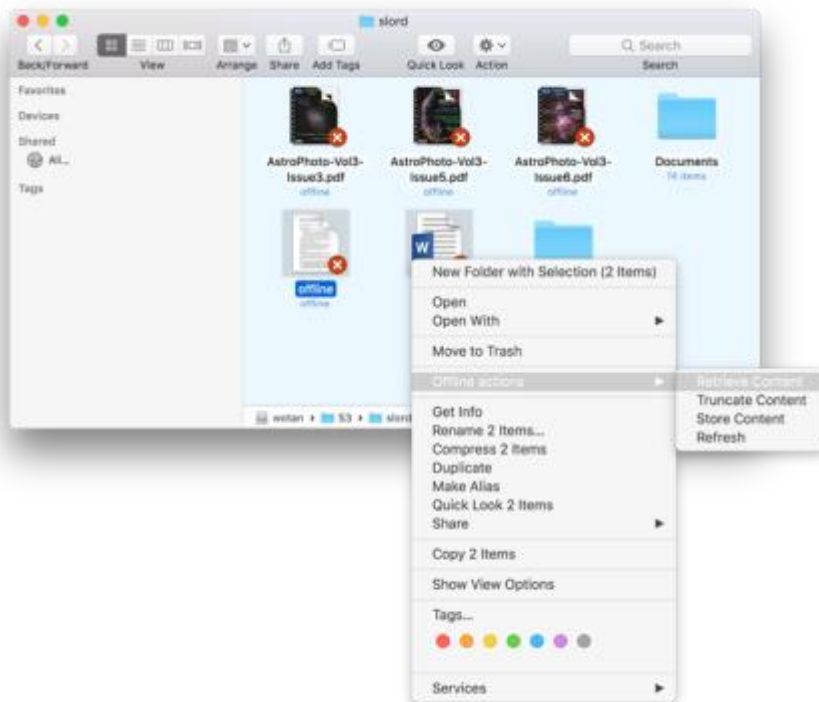
- ▶ Bandwidth throttling
 - Specify maximum bandwidth permitted for a client
- ▶ Bandwidth reservation
 - Guaranteed bandwidth for a client by limiting all others
- ▶ Support for SAN and DLC clients, Linux and Windows
- ▶ Web service API support
- ▶ Included in StorNext; no additional license required



Client Offline Archive Status/Retrieval



- ▶ Retrieve online or offline archived files only on explicit request
- ▶ Works in folder view and application file/open dialogs



Offline actions menu with retrieve, store and truncate menu actions

Other Management Enhancements



- File copy expiration and selectable retrieve order
 - Automated copy expiration by tier, reducing need to size destination tiers equivalently
 - Administrator-selectable retrieve order



- File system auditing
 - Provides activity trail of “what, when and who” made successful changes to file metadata and contents of file itself
 - Client access: SAN and DLC | Linux, Windows | StorNext NAS
 - Included in StorNext; no additional license required



- ▶ Extends StorNext environment to enable efficient collaboration on global scale
- ▶ Enhances data management to reduce complexity while optimizing performance and capacity
- ▶ Public announcement on April 17 (embargoed until then)
- ▶ Shipping early summer on all newly purchased Xcellis and Artico systems
 - Available at no additional cost to all StorNext 5 users with active maintenance contract



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