Delivering Scale-Out/ Scale-Up NAS and Scale-Out S3 Object Storage
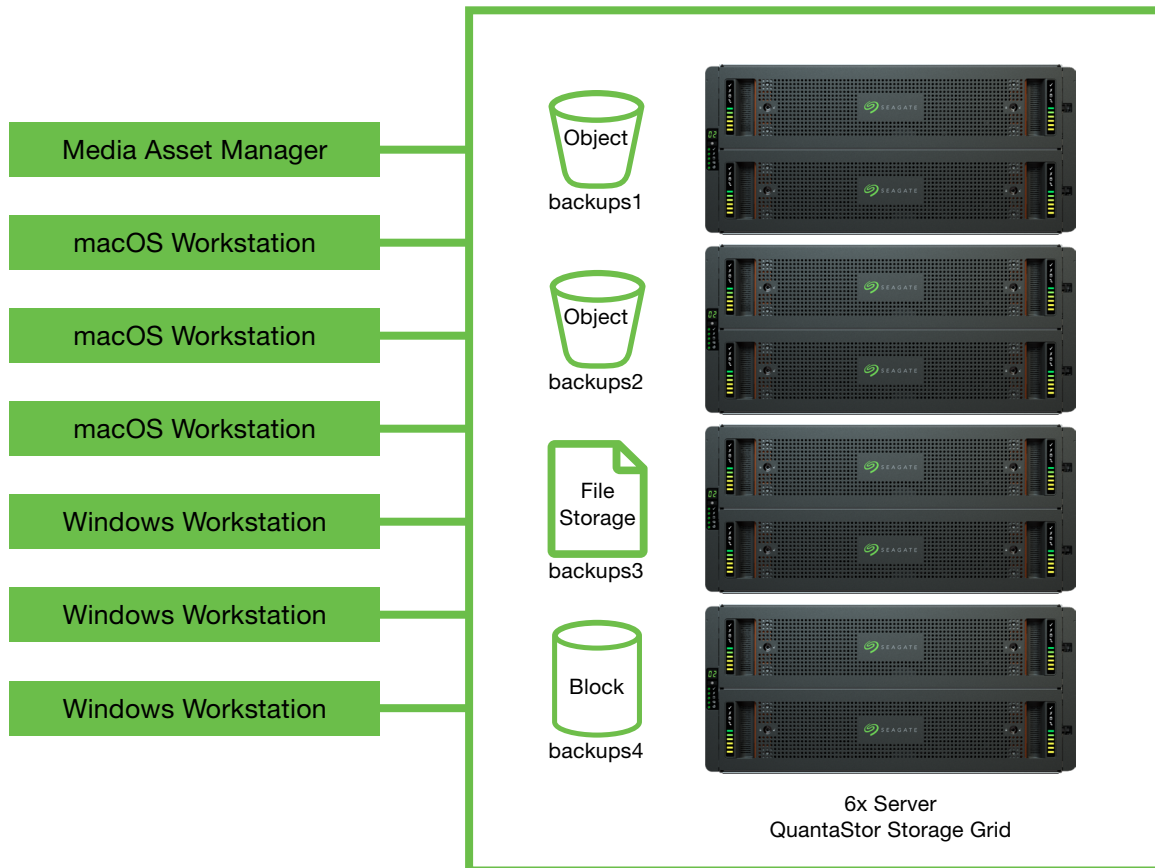
Seagate enterprise storage systems combined with OSNEXUS QuantaStor are ideal for a broad range of media and entertainment (M&E) use cases, including digital asset management, high-speed editing, transcoding and rendering as well as content streaming and distribution.

Seagate and OSNEXUS

OSNEXUS QuantaStor has validated Seagate Lyve™ Cloud and Seagate Systems, including Storage Servers (Exos® AP 5U84, Exos AP 2U12, Exos AP 2U24), Expansion Systems (Exos E 4U106, Exos E 5U84, Exos E 2U12, Exos E 2U24) and Exos CORVAULT™, which is a high-performance, self-healing block storage system. QuantaStor scale-out configurations can be deployed with Exos CORVAULT and the Exos AP 2U24, featuring two-layer erasure coding. Exos CORVAULT built-in, system-level Autonomic Distributed Allocation Protection Technology (ADAPT) erasure coding and QuantaStor second-layer, cluster-based erasure coding increases data durability up to 149's. This configuration also lowers the solution TCO by reducing server resources up to 50%.

Storage Grid Technology

QuantaStor's storage grid management technology helps organizations manage their storage across sites and clusters as one unified system which is enabled by OSNEXUS' QuantaStor integration with Seagate system-level health management monitoring platform. Grid technology helps manage and deploy storage as a private cloud offering that can start small and grow to over 100PB per grid. Within a storage grid multiple storage clusters may be deployed to meet the diverse workflow needs and multisite nature of media and entertainment organizations.

NAS-to-Cloud-Storage Tiering

OSNEXUS QuantaStor supports NAS-storage tiering to Seagate Lyve Cloud. Additionally, QuantaStor's S3-compatible object storage clusters may be used. Withauto-tiering older files automatically migrate to the object storage tier while appearing to still be local.

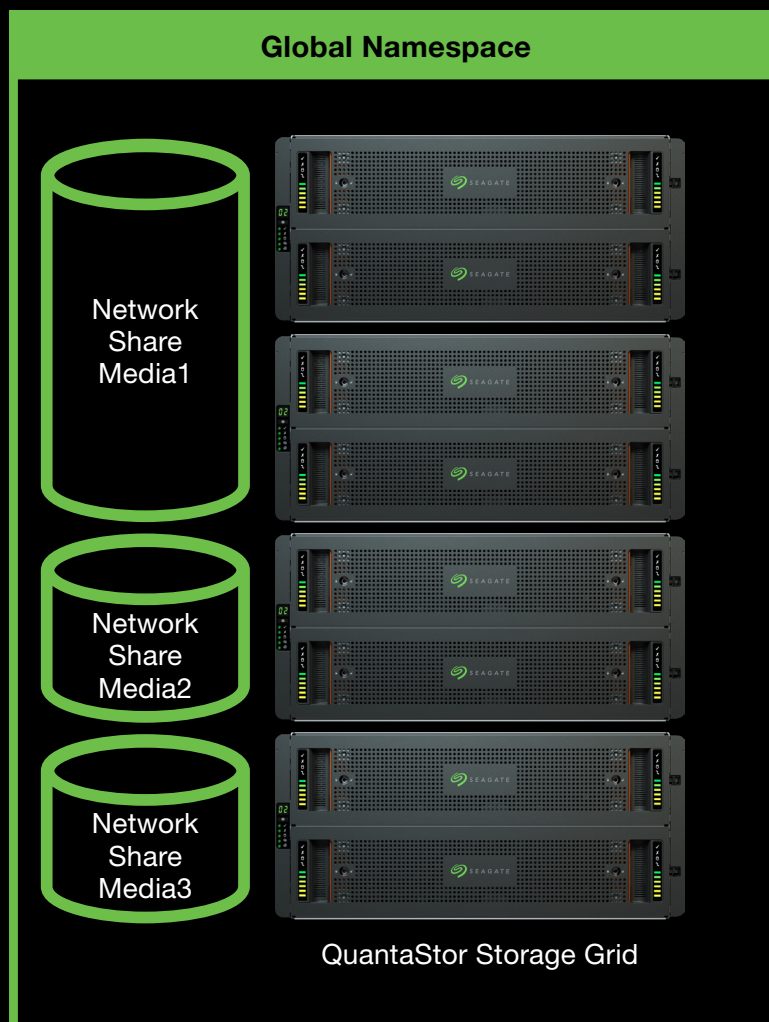# Media Editing, Media Playback and Media Asset Management

For media editing use cases, we recommend hybrid scale-up configurations that deliver a cost-effective mix of capacity and performance. For media playback, all-flash configurations that can keep up with modern 4K and 8K media formats are the best option. For media asset management (MAM), we also recommend hybrid (HDD and SSD) configurations that are either NAS or object storage.

Ransomware Protection and Immutability

QuantaStor helps organizations protect against ransomware using read-only snapshots featuring long-term retention rules. This enables organizations to recover quickly using snapshots with daily, weekly, monthly, or quarterly retention terms. Additionally, QuantaStor supports write-once-read-many (WORM) mode, that archives and media backups can't be modified.

Global Namespaces

As storage systems grow and span multiple sites and storage pools, it can be increasingly difficult for users to keep track of where all NAS folders are located. OSNEXUS QuantaStor solves this problem with its global namespaces feature—also known as Network Share Namespaces—which presents network shares so users see them as accessible from all appliances in each storage grid or grid subset. QuantaStor's global namespace presents storage over SMB (using the Microsoft DFS protocol) and via NFS (using NFSv4 referral technology). Scale-out storage clusters provide true single-namespace NAS so capacity and performance can be scaled by adding more systems and/or storage devices to the cluster.

Global Namespace

Network Share Media1

Network Share Media2

Network Share Media3

QuantaStor Storage Grid

Summary

Media and entertainment companies require high-performing systems that enable fast access to data, low-cost archive of content, and storage capabilities that streamline management across systems. Seagate Enterprise Storage Systems—combined with OSNexus QuantaStor—provides the media and entertainment industry with easy management, cloud storage tiering for automatic data migration, a low-cost archive, and global namespaces for managing groups of data across teams. For more information, visit https://www.seagate.com/solutions/osnexus/ and https://www.osnexus.com/seagate.