



# Accelerate Business Agility with Hybrid Cloud Storage

## Highlights

- **Gain the flexibility** of using the cloud to augment on-premises infrastructure, meeting short-term peaks or unanticipated demand
- **Easy to deploy and integrate** into existing environments with familiar NFS, SMB and Amazon S3™-compliant protocols
- **Optimize existing NAS investment** and utilization by offloading data from primary NAS to highly durable and affordable ActiveScale
- **Single Global namespace** across NAS and object storage whether it resides on premises or in the cloud
- **Transparently move data** between existing NAS and object storage on-premises or in the cloud
- **Clustering provides non-disruptive performance** and capacity scaling to keep up with growing application and data storage demands – provide high availability
- **Extreme data durability and integrity** with ActiveScale for active archive and long-term data retention uses cases. Helps eliminate the cost and complexity of tape

## Challenge

- **Leverage the cloud** without disrupting existing application and NAS storage environment
- **Reduce the cost** of scaling existing NAS to keep up with data growth and application performance needs
- **Keep more data online** in a single pool so it is easy to find and reuse for analytics and business agility
- **Current data protection and DR methods are complex**, expensive given of how disparate systems evolve over time

## Solution

- **HGST's ActiveScale™ object storage system combined with Avere FXT Edge filers.** The Edge filer manages performance, while object storage on-premises or in the cloud manages the capacity. The combined Avere and HGST solution offers a range of scalable performance and capacities to address many use cases across a range of industries including: media and entertainment, life sciences, government, and financial serves industries, among others.

Changing workloads and the ever-increasing volume and value of data are challenging IT organizations to provide infrastructure that is highly scalable and resilient while being globally accessible and affordable. Data is the lifeblood of businesses and is expected to continue its rapid growth well into the next decade. To gain a competitive advantage, today's workforce requires anytime, anywhere access to data.

To improve infrastructure flexibility and efficiency, enterprises are deploying a combination of public and private clouds. This hybrid approach allows companies to deploy mission-critical applications and data in an on-premises private cloud, while applications with less sensitive data can be deployed in the public cloud. A hybrid cloud offers flexible and economical options for storing and accessing data while enhancing overall business agility.

### HGST/ Avere Hybrid Cloud Storage Architecture

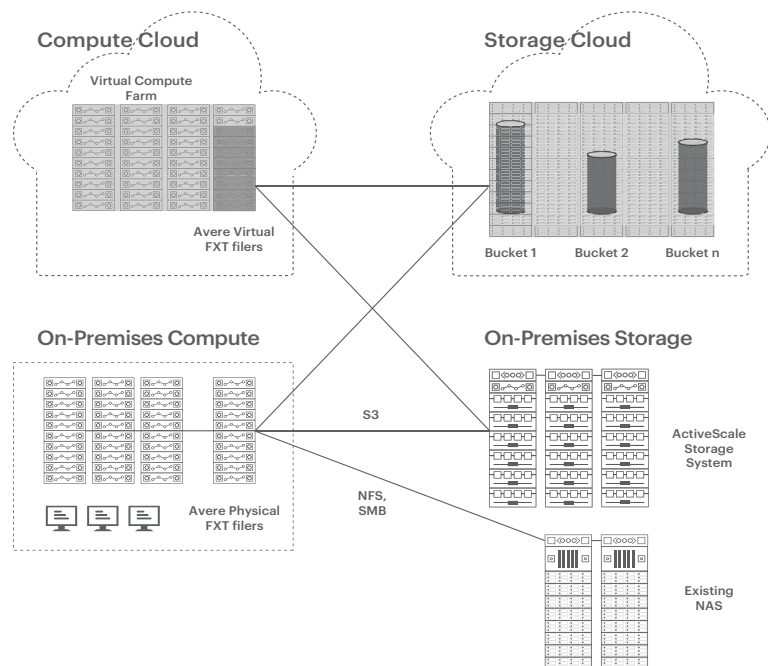


Figure 1: Hybrid Cloud NAS architecture example

## Traditional Storage Does Not Scale

As the volume of data grows, the traditional data protection methods of RAID (Redundant Array of Independent Disks) and replication simply will not scale to provide the data durability, performance and affordability required to manage petabyte-scale data. In the case of a failure, the data on a multi-terabyte drive can take weeks to rebuild, and if another issue occurs at the same time, the risk of losing data increases significantly – all the while with reduced performance.

In contrast, object storage has been the basis for cloud storage infrastructures by many of the world's largest cloud service providers. Many object storage solutions use erasure coding due to its ability to survive more simultaneous failures than RAID. Object storage is easy to manage and scale, and it has a high level of durability and resiliency. Data is easy to access anytime and anywhere through a single global namespace

## Redefining Storage for the Enterprise

HGST and Avere are working together to redefine hybrid cloud storage by combining NAS functionality and extreme performance scaling with the scale and efficiency of cloud object storage. Avere's FXT Edge filers and HGST's ActiveScale object storage systems give enterprises the ability to integrate on-premises object storage with existing NAS systems into a single global namespace. Avere software offers the flexibility to run applications in the cloud or on-premises with seamless data management across private and hybrid cloud boundaries.

Avere FXT Edge filers provide a complete NAS feature set, including NFS and SMB protocols, clustering to scale performance, and active/active failover for high availability. HGST's ActiveScale system provides massive capacity scalability with extremely high data durability and integrity. The combined solution provides optimized performance and capacity scaling, while significantly reducing the total cost of ownership compared to traditional storage architectures. These attributes are ideal for use in media and entertainment, life sciences, government, and financial services industries, among others.

## ActiveScale Object Storage

At the heart of the ActiveScale system is its innovative object storage software offering superior scalability, durability and efficiency. As a turnkey system, the challenges of architecting and integration are removed. It is up and running quickly – put it in place, connect the power, configure the network and it's online, presenting an Amazon S3- compliant object interface to the Avere FXT Edge filers.

### Scalable end-to-end asset and workflow management.

Starting small and scaling to enormous capacity, the system is

indispensable for rapidly growing content – as an on-premises private cloud, or as part of a hybrid-cloud model. ActiveScale supports off-the-shelf media asset and end-to-end workflow management applications.

**Extreme durability and security** helps companies ensure petabyte-scale media assets are protected over the long-term. Durability up to 17 nines is made possible by intelligently spreading each object across the system. Erasure coded object data spread across three locations helps protect data from a full site outage. End-to-end security keeps data safe whether at rest or in flight.

**Easy to install and manage.** ActiveScale is certified with off-the-shelf media asset managers that make configuring and provisioning simple and fast. ActiveScale self protects and automatically heals itself requiring virtually no immediate IT intervention. Tactical and strategic system management is made easy, whether provisioning new users and capacity, or system analytics that help with system optimization.

**Accelerate global collaboration** with a single comprehensive view of all content via a global namespace. Teams can seamlessly access and work together no matter where they are located as long as there is an internet connection.

Lower total cost of ownership with a high density, low power footprint thanks to HGST's innovative helium filled hard disk drives. ActiveScale is perfect to consolidate multiple storage systems which helps reduce complexity and management overhead. The system's self-protecting design means storage admins can manage more capacity and IT does not have to run out and swap out failed hardware. The system handles repairs quickly and transparently in the background.

## Conclusion

The combination of Avere FXT Edge filers and the HGST ActiveScale object storage system enables enterprises to take advantage of cloud efficiencies to manage escalating data growth and accessibility requirements. The hybrid cloud storage solution delivers optimized performance and capacity scaling with high durability and resiliency that can significantly reduce the total cost of ownership. Whether the data lives on-premises or in the cloud, it is easy to manage by integrating object storage and legacy NAS systems into a single global namespace with seamless data mobility. With fast access to essential data anytime and anywhere, businesses can better utilize all their data to gain a competitive advantage.

To learn more visit <http://www.hgst.com/products/systems>

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