

# Scale beyond petabytes with optimal data storage economics

## HPE Scalable Object Storage with Scality RING

### **Boundless scale in less footprint**

- Architected for trillions of objects in a single namespace
- Density-optimized platforms offer space efficiency at scale
- Modular scalability between access and capacity reduces costs

### **Maximum simplicity without compromise**

- Simply maintain nearly 100% data availability and durability
- Factory integration streamlines deployment
- Reduce IT manpower needed to manage petabytes of data

### **Timeless flexibility for today and the future**

- Choice of interfaces and deployment topologies
- Mix and match different configurations and platform models across multiple generations
- Hardware independent licensing model

## **Challenge**

### **Explosive data growth is driving storage to a tipping point**

In the zettabyte era with the data universe explosion, the ability to manage, store, and analyze vast quantities of information has become directly connected to the ability to survive and compete. However, data expansion is also quickly outpacing available capacities and pushing existing storage architectures to their limits, causing storage costs and complexity to grow at the same staggering pace as data itself.

Organizations face tremendous challenges as they contend with the explosive growth of unstructured data from a growing number of sources. These sources include video surveillance, medical imaging, device sensors or Internet of Things (IoT), business records, and social media platforms.

Overcoming obstacles such as rising hardware or software costs, growing IT complexity, data protection, and scarcity of physical space will require organizations transform their approach to storage.

### **Meet the escalating demands of data with object storage**

Distributed storage models are better equipped to handle large quantities of data than traditional storage methods, which are becoming progressively incapable of handling data at such a large scale. Hence, object

storage is becoming an optimal method to flexibly and cost-effectively accommodate enterprise storage needs of at least one petabyte. HPE Scalable Object Storage with Scality RING offers a software-defined storage platform that is designed to lower the costs of today's petabyte-scale storage needs as well as accommodate future data growth.

The solution is built on a platform that is density-optimized to allow you to seamlessly scale to petabytes and beyond in less physical space and without compromising performance.

With HPE Scalable Object Storage, you can simply maintain nearly 100 percent data availability and durability at large scale while retaining online access to all data types using a sustainable platform. Achieve petabyte-scale storage at optimal data storage economics with HPE Scalable Object Storage, all while realizing new levels of scalability, data availability and durability, and flexibility.

### **Boundless scale in less footprint**

HPE Scalable Object Storage is architected to support trillions of objects in a single namespace. It offers users direct and concurrent access with no added latency. An entirely parallel design for metadata and data enables scaling of capacity to limitless numbers of objects while providing high throughput performance, all on a platform that is optimized for both small and large files and objects.

## Solution brief

You can choose the right hardware solution based on the size of your data store. With a choice of either a 2U or 4U form factor, the HPE Scalable Object Storage platform lowers your storage cost with high performance even at petabytes of capacity.

Optimize performance with the right combination of CPU, memory, SSD, and HDD while capitalizing on modular scalability to build onto existing storage infrastructures and control storage costs. To add capacity, simply add more drives or servers with no downtime and increased back-end performance. With HPE Scalable Object Storage, you can scale beyond petabytes with linear performance in a smaller footprint.

### Maximum simplicity without compromise

The HPE Scalable Object Storage platform is designed to serve, manage, and protect all data as objects. This enables global policies for incredibly efficient and durable data storage, with optimal use of both replication and erasure coding methods. Distributed self-healing processes protect against failures from components such as drives and nodes to

entire racks and data centers. Individual, failed hot-plug disk replacements can be performed as a scheduled process, and integral cyclic redundancy check (CRC) checksums assure data integrity.

Storage at extreme scale can be easily managed with HPE x86 enterprise-grade server monitoring and management tools for the hardware, plus the easy to use RING Supervisor GUI for the application software. Factory integration allows optimized configurations to meet your specific requirements and streamlines the implementation process, and reduces deployment times.

### Timeless flexibility for today and the future

HPE Scalable Object Storage allows you to maintain access to all of your data types at petabyte scale. Your legacy and new generation applications can work seamlessly across native file protocols, object APIs such as S3-compatible interfaces, and OpenStack® environments. The platform is extensible through hardware refresh and upgrades making it sustainable for the future of data growth.

Your needs could be a single system in a single site, a single system distributed across multiple sites, or multiple systems replicating over multiple sites.

### Conclusion

Traditional storage architectures are being challenged by the explosive growth of unstructured and semi-structured data, which is quickly expanding into the petabyte and exabyte realm. Storage architectures built on object storage can help you achieve limitless scalability, maintain extreme data availability and durability, and future-proof your enterprise amid continued data growth. HPE Scalable Object Storage provides the boundless scale, maximum simplicity, and timeless flexibility needed to manage today's petabyte-scale storage needs. Create the right balance of protection and throughput performance for your most valuable data resources with integrated object storage solutions from Hewlett Packard Enterprise and Scality.

Learn more at  
[hpe.com/storage/scalableobject](https://hpe.com/storage/scalableobject)



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