

Helping service providers achieve massive scalability

Object storage with HPE Apollo 4000 and Scality RING

Solution benefits

High performance for mixed applications and workloads—addresses mixed storage workloads across small and large files, with high bandwidth in one single, multi-application environment that encompasses file, object, and OpenStack® applications.

Reliable architecture—maintains availability through hardware failures, capacity expansions, software upgrades, and hardware generations, with minimal intervention.

Flexible scalability—scales out linearly and limitlessly without adding administrator overhead or additional components; the Scality RING's pure software architecture allows you to mix and match different Apollo server models across multiple server generations.

Easy adoption—rack-scale HPE Apollo systems provide an enterprise bridge to density-optimized object storage solutions within traditional rack server data centers.

Lower costs—takes advantage of massive consolidation to reduce costs significantly.

Simplified management—deploys and manages your storage in a snap with the HPE Integrated Lights-Out (iLO) Management Engine.

Support the growing demand for data storage with an object storage solution that delivers performance, reliability, and massive scalability for service providers while answering data center challenges of space, energy, and time

Introduction

Hewlett Packard Enterprise has a defined business strategy to create comprehensive, value-added solutions for service providers with optimized hardware and software platforms, and a partner ecosystem with independent service vendors (ISVs) to create vertical industry solutions. Wrapping this up with advisory services and broader lifecycle management services, HPE helps service providers in all stages of their storage journey.

Store and access everything

Traditional storage systems can't keep up with storing, processing, and providing access to all your unstructured data, which is quickly expanding to petabytes and exabytes in size. In the information age, staying ahead of the data curve requires a transformation in your storage approach.

HPE Apollo 4000 Systems with Scality RING provides a software-defined storage platform that is designed for today's petabyte-scale storage needs, with new levels of performance, reliability, and scalability—all with the benefits of cloud economics.

Store and protect data at massive scale

Scality RING can scale to hundreds of petabytes of capacity and trillions of objects, and supports millions of users while enabling

global data protection and durability at massive scale. Though you can utilize a choice of native file, object, and OpenStack interfaces, the RING holistically serves, manages, and protects all your data as objects, enabling global policies around replication, erasure coding, and geo-replication for incredibly efficient and durable storage.

As the hardware component of your complete solution, HPE Apollo 4000 is designed specifically for Big Data analytics and object storage systems. These complete systems allow you to store and analyze your growing volumes of data cost effectively at petabyte scale and beyond. And, Apollo 4000 Systems help you accomplish this while meeting your data center challenges of space, energy, and time to results.

The Scality RING software leverages the power, density, and flexibility of HPE Apollo 4000 Systems to provide a storage solution that scales out linearly both with capacity and performance, as a single distributed, protected system across multiple active sites, thousands of servers, sizing beyond petabytes, and unlimited objects.

With Hewlett Packard Enterprise and Scality, you can satisfy today's storage requirements with the scalability you need as data continues to grow in the future.

Solution brief

Choosing the right Apollo 4000 solution

The HPE Apollo family is designed to deliver efficient rack-scale compute, storage, networking, power, and cooling for specific workloads. The Apollo 4000 Systems are optimized with just the right amount of scalability, performance, and efficiency for object storage. This server family is ideal for object storage solutions at any scale including collaboration and content distribution, content repositories and active archives, backup repositories and cold storage, as well as everything in between. You can choose the right solution based on the size of your datastore.

HPE Apollo 4200 Gen9 Server

The HPE Apollo 4200 Gen9 LFF Server is ideal for smaller fault-domains and 2 PB and below object storage implementations or for “plug-and-play” integration into traditional enterprise rack server data centers. This versatile 2U RING server integrates seamlessly into traditional data centers with the same rack dimensions, cabling, and serviceability, as well as the same administrative procedures and tools. The Apollo Server features up to 224 TB of direct-attached storage per server and 4.375 PB storage capacity per rack (with 8 TB LFF drives) and supports up to 28 hot-swappable LFF SAS or SATA hard disk drives (HDDs) or solid-state drives (SSDs).

HPE Apollo 4510 System

HPE Apollo 4510 System is a 4U, one server system, purpose-built for object storage solutions at both small and large scale. It has

¹ Calculation conducted by Scality RING.

Our solution partner



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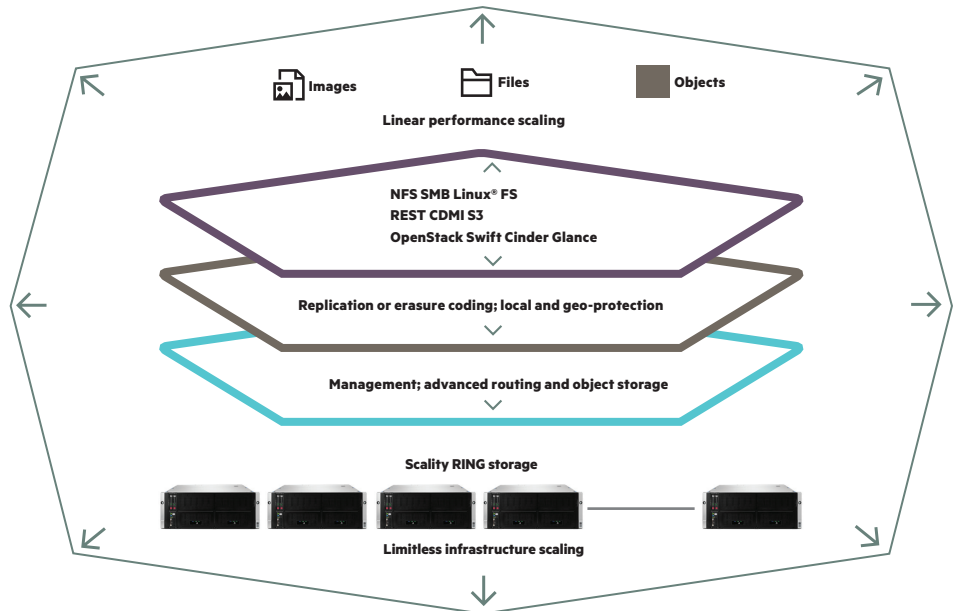


Figure 1: Scality RING architecture

up to 68 hot-plug SAS or SATA HDDs or SSDs and up to 544 TB storage capacity per server (with 8 TB SAS HDDs), which equals 5.44 PB of storage per 42U rack (with 10 systems and 680 LFF HDDs).

Benefits of Scality RING

Performance

Powered by a parallel architecture, the RING provides high throughput performance and handling of both small and large files via a rich choice of protocols and interfaces.

Reliability

The RING provides a range of data protection schemes including replication and erasure coding achieving up to 14 nines of durability.¹ A unique hardware-agnostic architecture enables nearly continuous uptime through issues, expansions, and upgrades.

Scalability

Acting as a single, distributed system, the RING supports scaling beyond petabytes and hosting an unlimited number of objects.

Find out more

The Hewlett Packard Enterprise and Scality solution helps maximize storage density and lower your cost of ownership. It is easy to deploy, simple to grow, and is built to create the right balance of protection and performance for your petabyte-scale storage needs. Contact your HPE or Scality representative to find out how we can help you solve the problem of rapid growth of unstructured data.

Learn more at
hpe.com/servers/objectstorage-scality

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