Datasheet

NetApp StorageGRID Webscale SG5700 Series

Enterprise-grade object storage in an easy-to-deploy appliance

Key Features

Enterprise-Grade Object Storage
Combining best-in-class NetApp® hardware with NetApp StorageGRID® Webscale object storage software creates a solution for the most demanding workloads.

Simple Deployment and Management
The StorageGRID Webscale appliance arrives ready to deploy with onboard embedded compute. Use this modular building block to create new installations or to expand existing environments.

Density-Optimized Storage Nodes
Fully configured and optimized for StorageGRID Webscale, the SG5700 Series delivers reliable and consistent performance. Combining compute and storage in a single, dense enclosure reduces the data center footprint.

Optimized Data Protection
Layered erasure coding combines node-level and distributed coding to optimize data protection while providing consistent performance.

Lower Cost per Gigabyte
Appliance-based configurations reduce the cost of external compute, storage networks, and hypervisor licensing.

The Challenge
Building an object storage solution requires IT staff to design, configure, deploy, and support massive amounts of compute and storage. Creating an optimal solution while balancing cost, performance, and resiliency is a daunting task.

The Solution
The NetApp SG5700 Series combines storage, compute, and object storage software into a single chassis to create a building block for enterprise-grade object storage. Preconfigured and fully optimized, the appliance enables administrators to rapidly deploy storage nodes for StorageGRID Webscale:

- You can choose the 4U 60-drive or the 2U 12-drive appliance. The chassis contains both compute and storage in a single, easy-to-deploy and serviceable form factor. Increased density saves data center rack space and energy, which further improves savings.
- For maximum efficiency and performance, StorageGRID Webscale software runs on internal compute.
- Guided by active metadata-driven policies, StorageGRID Webscale provides availability, durability, and geo-distribution of objects by using advanced N-way replication and distributed coding techniques.
- The SG5700 Series provides node-level erasure coding with Dynamic Disk Pools (DDP) technology, allowing the use of large-capacity hard drives while delivering consistent and optimal performance.

Rely on a Proven Solution
When setting out to create an object storage architecture, customers understand that they are designing a solution for massive scale and long-term retention. With the proven track record of StorageGRID Webscale software and NetApp storage, you can be confident that you are building on a rock-solid foundation.

The SG5700 Series combines best-in-class software and hardware into a purpose-built appliance. StorageGRID Webscale is a 11th-generation object store with a track record of production deployments in some of the most demanding workloads. The NetApp installed base of more than one million units deployed is a testament to the performance and the reliability of the NetApp product portfolio.

Get Flexibility and Resilience

StorageGRID Webscale nodes, whether they run on the SG5700 appliance, on virtual machines (VMs), or on bare-metal servers, are nodes within a resilient grid. You have the flexibility to deploy VM-based storage nodes with full interoperability with the SG5700 appliance. The choice of 2U and 4U models enables you to further optimize for compute and storage density for varying workloads. Nodes can be added to increase capacity and can be replaced for maintenance or upgrade without service interruption.

Optimize Data Protection and Efficiency

Building object storage on the strength of layered erasure coding provides data protection at the node level. Leveraging this feature with the geo-distributed coding across nodes and sites provides geo-protection, optimal efficiency, and data durability. With layered erasure coding, you can create policy-driven data protection with multiple levels of granularity, choosing a combination of full copies and erasure-coded copies to meet SLAs while achieving significant cost savings.

With disk failure handled by DDP technology, system performance is unaffected, and the need to perform cross-site repair of objects is greatly reduced, providing consistent performance while continuing to deliver outstanding availability and reliability.

Reduce Complexity

By providing a finely tuned and preconfigured unit, the SG5700 reduces the complexity of balancing compute and storage resources. Whether you deploy a new StorageGRID Webscale environment or expand an existing one, you can simply rack and cable the appliance and add it to the grid by using the StorageGRID Webscale Installer. Configuration of the appliance is fully automated.

Combining storage and compute also simplifies support. The SG5700 is backed by the NetApp world-class support and development organization. Advanced features such as the NetApp AutoSupport® diagnostics system provide proactive and immediate response to address any issue rapidly.

Increase Cost Savings

The SG5700 is a core building block for enterprise-grade object storage. When StorageGRID Webscale software runs directly on the embedded compute, the need for hypervisor licensing is reduced. Combining storage and compute into a single chassis reduces the footprint on the data center floor, resulting in further cost savings.

About NetApp

NetApp is the data authority for hybrid cloud. We empower customers to simplify and integrate data management across cloud and on-premises environments to accelerate digital transformation. Together with our partners, we provide a full range of hybrid cloud data services to help global organizations unleash the full potential of their data to expand customer touchpoints, foster greater innovation and optimize their operations. For more information, visit **www.netapp.com**.

KEY FEATURES FOR OBJECT STORAGE INFRASTRUCTURE	NETAPP SG5700 PROVIDES
Modular architecture	• Preconfigured and optimized building blocks • Scalability of up to 100 billion objects, 120PB capacity, and 16 geo-distributed sites • Ability to rapidly expand by simply adding more appliances • Simple installation and management • Added security with the option for FIPS drives
Cost efficiency	• Space efficiency: optimized storage and compute combined into a single chassis • Layered erasure coding and replication across geo-distributed sites • Reduced licensing and management by reducing the need for hypervisors
Consistent performance	• StorageGRID Webscale takes full advantage of dedicated compute • DDP technology provides consistent performance and reduces replication traffic due to disk failure
Enterprise-grade reliability	• Built on the real-world-tested foundation of NetApp hardware • 11th-generation object storage software
World-class support	• Backed by NetApp Customer Success Operations • NetApp AutoSupport service that provides proactive support for hardware and software

MODELS & SPECIFICATIONS

	SG5760	SG5712
Raw capacity	• 4TB drives = 240TB • 8TB drives = 480TB • 10TB drives = 600TB	• 4TB drives = 48TB • 8TB drives = 96TB • 10TB drives = 120TB
Form factor	4U, 60 drives	2U, 12 drives
Connectivity	4 x 10GbE/4 x 25GbE	4 x 10GbE/4 x 25GbE
Width	17.66" (44.86cm)	17.6" (44.7cm)
Depth	38.25" (97.16cm)	21.1" (53.6cm)
Weight	250lb (113kg)	63.9lb (29kg)

Environmental Specifications		Typical	Maximum	Typical	Maximum
4TB drives	Amps	6.25	8.06	2.02	2.54
	Watts	1361	1755	440	552
	BTU	4642	5989	1501	1884
8TB drives	Amps	5.95	7.77	1.97	2.49
	Watts	1297	1692	429	541
	BTU	4425	5772	1462	1846
10TB drives	Amps	6.25	8.06	1.97	2.49
	Watts	1360	1755	441	554
	BTU	4642	5989	1506	1889

The SG5760 requires 208V-240V power. It will not function with 120V power.