



Datasheet

NetApp StorageGRID Webscale SG5600 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 SG5600 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 SG5600 Series combines storage, networking, compute and subject 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 SG5600 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 SG5600 Series combines best-in-class software and hardware into a purpose-built appliance. StorageGRID Webscale is a 10th-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 SG5600 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 SG5600 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 SG5600 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 SG5600 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 SG5600 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

Leading organizations worldwide count on NetApp for software, systems and services to manage and store their data. Customers value our teamwork, expertise and passion for helping them succeed now and into the future.

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KEY FEATURES FOR OBJECT STORAGE INFRASTRUCTURE

NETAPP SG5600 PROVIDES

Modular architecture

- Preconfigured and optimized building blocks
- Scalability of up to 100 billion objects, 70PB 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
- 10th-generation object storage software

World-class support

- Backed by NetApp Customer Success Operations
 - NetApp AutoSupport service that provides proactive support for hardware and software
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MODELS & SPECIFICATIONS

	SG5660	SG5612
Raw capacity	<ul style="list-style-type: none"> • 4TB drives = 240TB • 6TB drives = 360TB • 8TB drives = 480TB • 10TB drives = 600TB 	<ul style="list-style-type: none"> • 4TB drives = 48TB • 6TB drives = 72TB • 8TB drives = 96TB • 10TB drives = 120TB
Form factor	4U, 60 drives	2U, 12 drives
Connectivity	10GbE	10GbE
Width	19" (48.26cm)	19" (48.26cm)
Depth	32.5" (82.55cm)	21.75" (55.25cm)
Weight	232lb (105.2kg)	59.52lb (27kg)

Environmental Specifications		Typical	Maximum	Typical	Maximum
4TB drives	Amps	4.95	5.9	2.11	2.79
	Watts	1077.94	1285.52	460.2	608.58
	BTU	3678.08	4386.38	1582.82	2076.56
6TB drives	Amps	5.04	5.99	2.13	2.81
	Watts	1097.21	1304.79	463.88	612.26
	BTU	3743.84	4452.13	1582.82	2089.12
8TB drives	Amps	4.68	5.63	2.06	2.74
	Watts	1018.75	1226.33	448.89	597.28
	BTU	3476.12	4184.41	1531.68	2038
10TB drives	Amps	5.22	5.94	2.15	2.83
	Watts	1136.55	1293.04	468.11	616.49
	BTU	3878.07	4412.04	1597.26	2103.55

The SG5660 requires 208V-240V power. It will not function with 120V power.