



Overview

StorageGRID

NetApp
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SG5700 appliances: Overview

The SG5700 StorageGRID appliance is an integrated storage and computing platform that operates as a Storage Node in a StorageGRID grid. The appliance can be used in a hybrid grid environment that combines appliance Storage Nodes and virtual (software-based) Storage Nodes.

The StorageGRID SG5700 appliance provides the following features:

- Integrates the storage and computing elements for a StorageGRID Storage Node.
- Includes the StorageGRID Appliance Installer to simplify Storage Node deployment and configuration.
- Includes E-Series SANtricity System Manager for hardware management and monitoring.
- Supports up to four 10-GbE or 25-GbE connections to the StorageGRID Grid Network and Client Network.
- Supports Full Disk Encryption (FDE) drives or Federal Information Processing Standard (FIPS) drives. When these drives are used with the Drive Security feature in SANtricity System Manager, unauthorized access to data is prevented.

The SG5700 appliance is available in two models: the SG5712 and the SG5760. Both models include the following components:

Component	SG5712	SG5760
Compute controller	E5700SG controller	E5700SG controller
Storage controller	E-Series E2800 controller	E-Series E2800 controller
Chassis	E-Series DE212C enclosure, a two rack-unit (2U) enclosure	E-Series DE460C enclosure, a four rack-unit (4U) enclosure
Drives	12 NL-SAS drives (3.5-inch)	60 NL-SAS drives (3.5-inch)
Redundant power supplies and fans	Two power-fan canisters	Two power canisters and two fan canisters

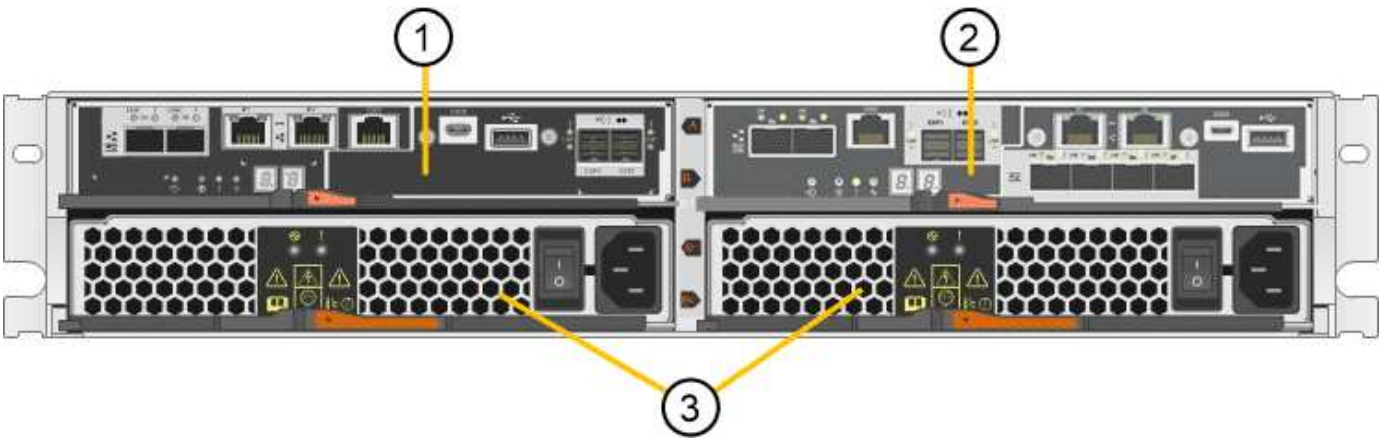
The maximum raw storage available in the StorageGRID appliance is fixed, based on the number of drives in each enclosure. You cannot expand the available storage by adding a shelf with additional drives.

Model SG5712

This figure shows the front and back of the SG5712 model, a 2U enclosure that holds 12 drives.



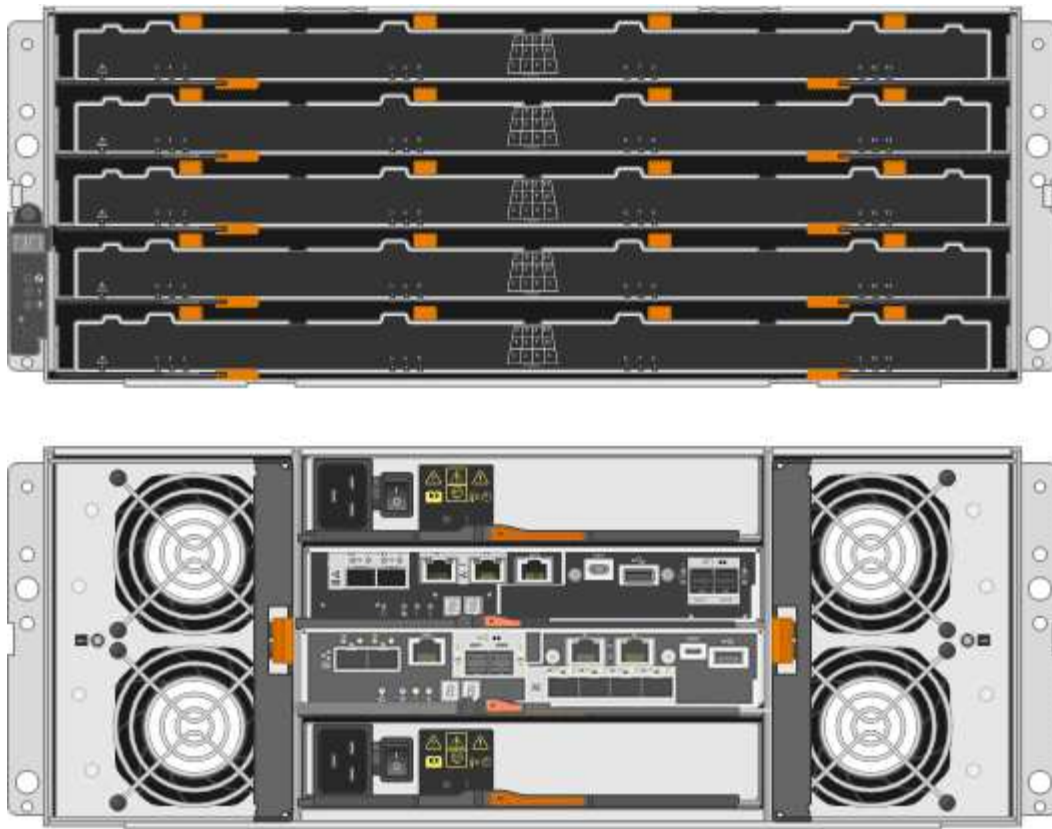
The SG5712 includes two controllers and two power-fan canisters.



Callout	Description
1	E2800 controller (storage controller)
2	E5700SG controller (compute controller)
3	Power-fan canisters

Model SG5760

This figure shows the front and back of the SG5760 model, a 4U enclosure that holds 60 drives in 5 drive drawers.



The SG5760 includes two controllers, two fan canisters, and two power canisters.

Callout	Description
1	E2800 controller (storage controller)
2	E5700SG controller (compute controller)
3	Fan canister (1 of 2)
4	Power canister (1 of 2)

Related information

[NetApp E-Series Systems Documentation Site](#)

Controllers in StorageGRID appliance

Both the SG5712 and SG5760 models of the StorageGRID appliance include an E5700SG controller and an E2800 controller. You should review the diagrams to learn the differences between the controllers.

E5700SG controller

- Operates as the compute server for the appliance.

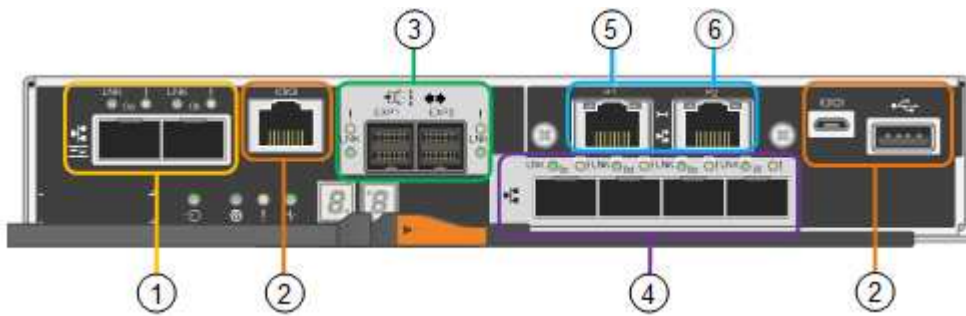
- Includes the StorageGRID Appliance Installer.



StorageGRID software is not preinstalled on the appliance. This software is accessed from the Admin Node when you deploy the appliance.

- Can connect to all three StorageGRID networks, including the Grid Network, the Admin Network, and the Client Network.
- Connects to the E2800 controller and operates as the initiator.

This figure shows the connectors on the back of the E5700SG controller.



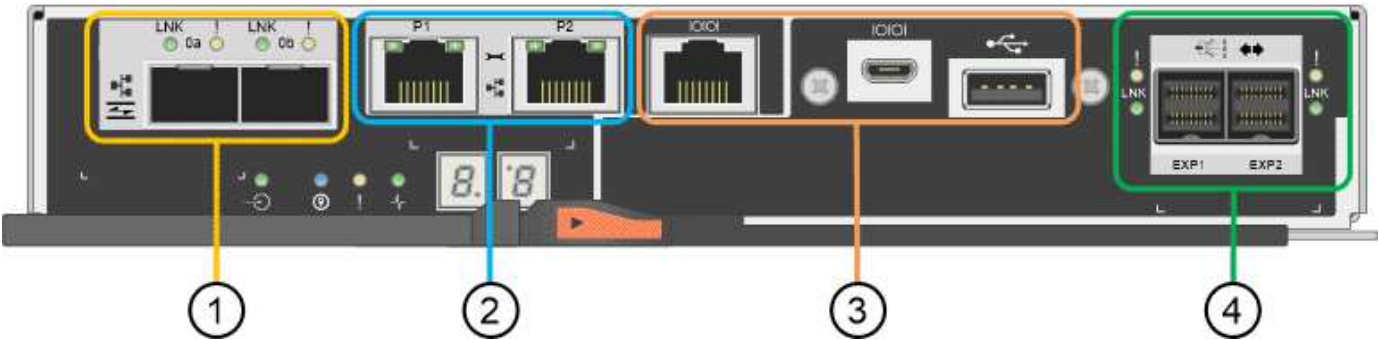
	Port	Type	Use
1	Interconnect ports 1 and 2	16Gb/s Fibre Channel (FC), optical SFPa	Connect the E5700SG controller to the E2800 controller.
2	Diagnostic and support ports	<ul style="list-style-type: none"> • RJ-45 serial port • Micro USB serial port • USB port 	Reserved for technical support.
3	Drive expansion ports	12Gb/s SAS	Not used. StorageGRID appliances do not support expansion drive shelves.
4	Network ports 1-4	10-GbE or 25-GbE, based on SFP transceiver type, switch speed, and configured link speed	Connect to the Grid Network and the Client Network for StorageGRID.
5	Management port 1	1-Gb (RJ-45) Ethernet	Connect to the Admin Network for StorageGRID.

	Port	Type	Use
6	Management port 2	1-Gb (RJ-45) Ethernet	Options: <ul style="list-style-type: none"> • Bond with management port 1 for a redundant connection to the Admin Network for StorageGRID. • Leave unwired and available for temporary local access (IP 169.254.0.1). • During installation, use port 2 for IP configuration if DHCP-assigned IP addresses are not available.

E2800 controller

- Operates as the storage controller for the appliance.
- Manages the storage of data on the drives.
- Functions as a standard E-Series controller in simplex mode.
- Includes SANtricity OS Software (controller firmware).
- Includes SANtricity System Manager for monitoring appliance hardware and for managing alerts, the AutoSupport feature, and the Drive Security feature.
- Connects to the E5700SG controller and operates as the target.

This figure shows the connectors on the back of the E2800 controller.



	Port	Type	Use
1	Interconnect ports 1 and 2	16Gb/s FC optical SFPa	Connect the E2800 controller to the E5700SG controller.

	Port	Type	Use
2	Management ports 1 and 2	1-Gb (RJ-45) Ethernet	<ul style="list-style-type: none"> Port 1 Options: <ul style="list-style-type: none"> Connect to a management network to enable direct TCP/IP access to SANtricity System Manager Leave unwired to save a switch port and IP address. Access SANtricity System Manager using the Grid Manager or Storage Grid Appliance Installer UIs. <p>Note: some optional SANtricity functionality, such as NTP sync for accurate log timestamps, is not available when you choose to leave Port 1 unwired.</p> <p>Note: StorageGRID 11.5 or greater, and SANtricity 11.70 or greater, are required when you leave Port 1 unwired.</p> <ul style="list-style-type: none"> Port 2 is reserved for technical support use.
3	Diagnostic and support ports	<ul style="list-style-type: none"> RJ-45 serial port Micro USB serial port USB port 	Reserved for technical support use.
4	Drive expansion ports.	12Gb/s SAS	Not used. StorageGRID appliances do not support expansion drive shelves.

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