



EonStor GS Family

Cloud-Integrated Unified Storage

Witness the power of consolidated file, block, and object storage



HIGHLIGHTS

UNIFIED STORAGE

- Consolidate SAN, NAS and object storage in a single system to enjoy powerful storage features and simplify deployment and management

EFFICIENCY

- Integrated object based storage reduces the cost of deploying applications from the cloud
- EonStor GS family makes efficient use of available bandwidth and greatly speeds up data extend when uploading data to the cloud with its data reduction technology
- EonStor GS has perfectly integrated the LDAP Server function into the system, so customers do not need to construct additional LDAP Servers.

EXCEPTIONAL COST PERFORMANCE

- High Block/file level Performance, it delivers up to 450K IOPS, 11,000MB/s block and 3,300MB/s CIFS bandwidth.
- Future-proof expansion solution offers ample data capacity of up to 444 drives.
- Comprehensive data services, including SSD Cache and automated storage tiering improve performance and speed up data access.
- Support for all-flash and hybrid configurations provides flexibility of choice to meet your needs.
- Select from a wide range of product series and multiple host options.

The volume of digital data currently being produced is growing at unprecedented rates, in big part due to our increasing demand for unstructured data types such as files, images and videos, which push the boundaries of storage capacity and performance. Because of this, many organizations are making cloud storage, with its cost-effective flexibility and infinite scalability, an integral part of their strategy. Now more than ever, choosing a local storage solution that can easily integrate with cloud services is a must.

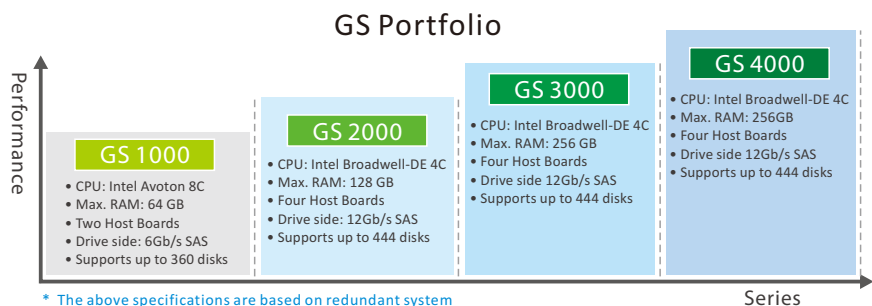
EonStor GS family is a unified storage solution that incorporates remote cloud storage into local applications to offer the best of both worlds – unlimited cloud storage and high performance local storage – as well as automatic data lifecycle management, to allow SMBs and SMEs running local SAN/NAS applications to easily and cost-effectively integrate and expand their storage architecture into cloud services.

Powerful All-around High Performance & Efficiency

Based on much improved hardware and firmware, EonStor GS family can handle file level protocols including CIFS/SMB, NFS, AFP and FTP; block level protocols such as Fiber Channel, iSCSI and SAS; and object level protocols, which allow users to access files directly via browsers through the file's unique URL and reduces the cost of deploying applications from the cloud.

By integrating all of these protocols and harnessing the power of Intel's multicore CPU, EonStor GS family delivers not only outstanding flexibility but also incredible performance in two configurations: all-flash and hybrid. As an all-flash system, it delivers up to 450K IOPS, 11,000MB/s block and 3,300MB/s CIFS bandwidth. Moreover, by offering hybrid features such as SSD Cache, protocol translation between local NAS/SAN and cloud storage services, and automated storage tiering, EonStor GS family guarantees exceptional performance at every level of operation.

This great performance and efficiency can also be found in our cloud storage integration thanks to deduplication and compression features, which ensure the efficient use of bandwidth to effectively extend data to the cloud and lower overall costs.



CLOUD READY

- The EonStor GS can integrate with cloud storage, and data can be optimally allocated between EonStor GS and Cloud through our smart algorithms, so users can enjoy the best performance and the safest storage.
- EonStor GS offers comprehensive cloud integration functions for users to choose from: Cloud Tiering, Cloud Cache and Cloud Backup.
- Support for private and public cloud services enables users to choose the option that best suits their budget or data security requirements

AVAILABILITY & RELIABILITY

- SMB 3.0 transparent failover and multipathing support guarantee non-disruptive operations.
- Dual controllers and non-single-point-of-failure hardware design ensure system continuity in case of faults.
- Cache protection with Super capacitor and Flash to ensure data safety
- IDR support ensures all hard drives are healthy to prevent from rebuild

DATA PROTECTION & SECURITY

- Whether inactive or mid transfer, data is always encrypted to ensure full protection from malicious attacks

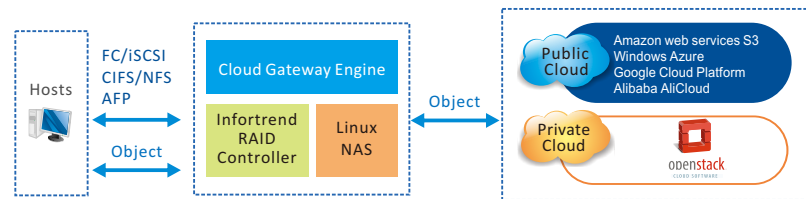
SIMPLICITY

- EonOne management interface provides a single control center for system management and resources monitoring

Infinite Storage Capacity on Cloud

One of the key benefits of cloud storage solutions is their unlimited scalability and flexible “scale on demand” model, which allows you to expand your storage capacity as needed, without upfront investment, to fit your capacity requirements as they evolve.

By integrating Intelligent Cloud Gateway Engine and supporting a wide range of both private cloud and public cloud services, including Amazon, Azure, and Google, the EonStor GS offers various cloud functions such as Cloud Tiering, Cloud Cache and Cloud Backup to make the most of cloud's advantages. These functions perfectly combine local and cloud storage, automatically and optimally allocating data, while saving setup and maintenance costs in the process.



Comprehensive Data Protection and Security

As security is of utmost importance when it comes to data storage in the cloud, the EonStor GS family provides AES 256bit Encryption for data-in-flight and data-at-rest, as well as self-encrypting drives (SED) compatibility, ensuring data is always protected from malicious threats. Furthermore, with integrated SSL, links between server and client are also encrypted.

Security threats are by no means the only concern when it comes to safeguarding data. Unexpected disk failures, natural disasters and power outages all up the risk of data loss. EonStor GS family ensures this risk is minimal with its integrated backup functions such as Intelligent Drive Recovery (IDR), snapshot, local replication, remote replication and file-level rsync.

In case a failure is experienced, the system's integrated SMB 3.0 transparent failover and multipathing support guarantee non-disruptive operations. Also, designed with redundant dual controllers and non-single-point-of-failure hardware components, it ensures business continuity at all times.

Integration with Windows® AD and LDAP

The EonStor GS Family provides easy integration with existing business network environments through Windows® AD and LDAP directory services, which allow MIS to easily configure access rights of every user account in a share folder through ACL. Furthermore, EonStor GS has perfectly integrated the LDAP Server function into the system, so customers do not need to construct additional LDAP Servers.

Specifications (per system)	GS 1000 GS 1000T ^{*1}	GS 2000 GS 2000T ^{*1}	GS 3000	GS 4000
Form factor	2U 12-bay	✓	✓	
	2U 24-bay	✓	✓	✓
	3U 16-bay	✓	✓	✓
	4U 24-bay	✓	✓	✓
Storage controller	Dual-redundant/ Single upgradable to redundant			
Max Drives	360	444	444	444
Max SSD Cache Pool	1.6TB	3.2TB	3.2TB	3.2TB
Cache backup techniques	Super capacitor + Flash module			
Power Supply Unit ^{*4}	Power supply: Two redundant 460W; Voltage and Frequency: 100-240 Vac, 50-60Hz		Power supply: Two redundant 530W; Voltage and Frequency: 100-240 Vac, 50-60Hz	
CPU	2x Intel Avoton 4C/ 8C	2x Intel Broadwell-DE 2C/ 4C	2x Intel Broadwell-DE 4C	2x Intel Broadwell-DE 4C
Cache memory ^{**5}	8GB, 16GB, 32GB, 64GB	8GB, 16GB, 32GB, 64GB, 128GB	8GB, 16GB, 32GB, 64GB, 128GB, 256GB	
Max. number of host board	2	4	4	4
SAS expansion ports	2 x 6Gb/s SAS wide ports	2 x 12Gb/s SAS wide ports	4 x 12Gb/s SAS wide ports	4 x 12Gb/s SAS wide ports
Onboard converged ports ^{*6}	0	0	0	16
Onboard iSCSI ports (10Gb RJ-45)	0	0	4	0
Onboard iSCSI ports (1Gb RJ-45)	8	8	4	0
Host board ports	2 x 16Gb FC ports 4 x 8Gb FC ports 2 x 10Gb iSCSI ports (RJ-45) 2/4 x 10Gb iSCSI ports (SFP +) 4 x 1Gb iSCSI ports 2 x 6Gb SAS ports 2 x 12Gb SAS ports		2 x 16Gb FC ports 4 x 8Gb FC ports 4 x 10Gb FCoE ports 2 x 10Gb iSCSI ports (RJ-45) 2/4 x 10Gb iSCSI ports (SFP +) 4 x 1Gb iSCSI ports 2 x 12Gb SAS ports	
Host board + onboard ports (max.)	16	24	24	32
Max. 8Gb/s FC Ports ^{*3}	8	16	16	32
Max. 16Gb/s FC ports ^{*3}	4	8	8	16
Max. 1 GbE/iSCSI ports	16	24	20	16
Max. 10 GbE/iSCSI (SFP +) ports ^{*3}	8	16	16	32
Max. 10 GbE/iSCSI (RJ45) ports	4	8	12	8
Max. 10 GbE FCoE ports ^{*3}	0	16	16	32
Max. 12Gb/s SAS ports	4	8	8	8
Max. 6Gb/s SAS ports	4	0	0	0
Max. number of logical drives	32			
Max. logical drive capacity	512TB			
Configurable stripe size	16KB, 32KB, 64KB, 128KB, 256KB, 512KB, or 1024KB per logical drive			
Configurable Write Policy	Write-Back or Write-Through per logical drive. This policy can be modified.			
Max. size of Pool	2PB			
Max. number of Pools	32			
Max. number of logical drive per pool	128			
Max. number of volumes (per pool/ per system)	1024			
Max. number of LUNs Mappable	4000			
Max. volume size	2PB			
Number of tags reserved for each Host-LUN connection	Up to 256			
Max iSCSI Initiators	832			
File Level	Max. File System Size	2PB		
	Max. number of user accounts	20000		
	Max. number of user groups	512		
	Max. number of folder sharing (NFS/CIFS/AFP/FTP)	2048		
	Max. number of Rsync jobs	1024		
	Max. number of Rsync concurrent processes	64		
Max. number of connections for a folder (NFS/CIFS/AFP/FTP)	2048 per controller			
RAID Options	RAID 0, 1 (0+1), 3, 5, 6, 10, 30, 50, 60			
Protocol Support	File Level Protocol Block Level Protocol Object Level Protocol	CIFS/ SMB: Version 2.0/3.0, NFS: Version 2/3/4, AFP, FTP, WebDAV FC, FCoE, iSCSI, SAS Openstack Swift		
Cloud Gateway	Support the integration with following cloud providers: Amazon S3, Microsoft Azure, Google Cloud Platform, Alibaba AliCloud			
Green design	<ul style="list-style-type: none"> • 80 PLUS power supplies delivering more than 80% energy efficiency • Intelligent multi-level drive spin-down 			
Regulatory	<ul style="list-style-type: none"> • Electromagnetic Compatibility : CE, BSMI, FCC, KC • Safety : UL, BSMI, CB, EAC 			

1. Model name "*" means high IOPS solution
 2. GS 4000/3000/2000 Default: DDR4 4GBx2 with ECC per controller, GS 1000 Default: DDR3 4GBx2 with ECC per controller
 3. GS 4000/3000/2000 Converged host board supports 4-port 10GbE iSCSI, 4-Port 8 Gb/s FC, 2-port 16Gb/s FC and 4-port 10GbE FCoE. GS 1000 Converged host board supports 4-port 10GbE iSCSI, 4-Port 8Gb/s FC and 2-port 16Gb/s FC.
 4. Power is also supplied in redundant mode, allowing full operation with half the resources.
 5. 8GB is for single controller models; 256GB is for redundant controller models.
 6. GS 4000 onboard converged port supports 4-port 10GbE iSCSI, 4-Port 8 Gb/s FC, 2-port 16Gb/s FC and 4-port 10GbE FCoE

GS 4000/3000/2000/2000T Series

Form Factor	2U 12-bay		3U 16-bay		4U 24-bay		2U 24-bay		
Model ¹	GS 3012R	GS 2012R	GS 4016R	GS 2016R	GS 3024R	GS 2024R	GS 4024RB	GS 2024RB	GS 3024RB
	GS 3012S	GS 2012S GS 2012RT GS 2012ST	GS 4016S GS 2016S GS 3016R GS 3016S	GS 2016S	GS 3024S	GS 2024RT GS 2024S GS 2024ST	GS 4024SB	GS 2024RBT GS 2024SB GS 2024SBT	GS 3024SB
Supported drives ²			• 2.5" 10K/15K RPM SAS HDD • 2.5" SATA/SAS SSD		• 3.5" 7200 RPM NL SAS HDD • 3.5" 7200 RPM SATA HDD		• 2.5" 10K/15K RPM SAS HDD • 2.5" SATA/SAS SSD		
Max. drives number	432		436		444		444		
Rack Support	2U, 19-inch rackmount		3U, 19-inch rackmount		4U, 19-inch rackmount		2U, 19-inch rackmount		
Dimensions ³	447mm (W) x 88mm (H) x 500mm (D)		447mm (W) x 130mm (H) x 500mm (D)		447mm (W) x 175mm (H) x 500mm (D)		447mm (W) x 88mm (H) x 500mm (D)		
Package Dimensions	780mm (W) x 379mm (H) x 588mm (D)		780mm (W) x 423mm (H) x 588mm (D)		780mm (W) x 465mm (H) x 588mm (D)		780mm (W) x 338mm (H) x 588mm (D)		
Expansion enclosure (JBOD)	JB 3012A JB 3060 JB 3060L	JB 3016A JB 3060 JB 3060L			JB 3016A JB 3060 JB 3060L			JB 3024BA JB 3060 JB 3060L	JB 3012A JB 3016A

GS 1000/1000T Series

Form Factor	2U 12-bay		3U 16-bay		4U 24-bay		2U 24-bay	
Model ¹	GS 1012R	GS 1012RT	GS 1016R	GS 1016RT	GS 1024R	GS 1024RT	GS 1024RB	GS 1024RBT
	GS 1012S	GS 1012ST	GS 1016S	GS 1016ST	GS 1024S	GS 1024ST	GS 1024SB	GS 1024SBT
Supported drives ²			• 2.5" 10K/15K RPM SAS HDD • 2.5" SATA/SAS SSD • 3.5" 7200 RPM NL SAS HDD • 3.5" 7200 RPM SATA HDD				• 2.5" 10K/15K RPM SAS HDD • 2.5" SATA/SAS SSD	
Max. drives number	312		316		324		360	
Rack Support	2U, 19-inch rackmount		3U, 19-inch rackmount		4U, 19-inch rackmount		2U, 19-inch rackmount	
Dimensions ³	447mm (W) x 88mm (H) x 500mm (D)		447mm (W) x 130mm (H) x 500mm (D)		447mm (W) x 175mm (H) x 500mm (D)		447mm (W) x 88mm (H) x 500mm (D)	
Package Dimensions	780mm (W) x 379mm (H) x 588mm (D)		780mm (W) x 423mm (H) x 588mm (D)		780mm (W) x 465mm (H) x 588mm (D)		780mm (W) x 338mm (H) x 588mm (D)	
Expansion enclosure (JBOD)	JB 2012-1 JB 2060 JB 2060L		JB 2016-1 JB 2060 JB 2060L		JB 2016-1 JB 2060 JB 2060L		JB 2024B JB 2060 JB 2060L	JB 2012-1 JB 2016-1

1. S: Single controller (upgradeable to dual controller system) R: Redundant controller T: High IOPS solution
 2. For the latest compatibility details, refer to our official website for the latest EonStor GS Compatibility Matrix.
 3. Without chassis ears/protrusions

Data Service & Support

Data Service

Local Replication ² <small>(Standard license is included by default and advanced is an optional license)</small>	Snapshot	Snapshot images per source volume Snapshot images per system	Standard License: 64 / Advanced License: 256 Standard License: 128 / Advanced License: 4096
	Volume Copy/Mirror	Source volumes per system Replication pairs per source volume Replication pairs per system	Standard License: 16 / Advanced License: 32 Standard License: 4 / Advanced License: 8 Standard License: 64 / Advanced License: 256
Thin Provisioning (default included)	"Just-in-time" capacity allocation optimizes storage utilization and eliminates allocated but unused storage space		
Self-encrypting drives	Unique factory encryption secures data plus makes deletion simple and complete		
Remote Replication (Block level) ¹	Replication per source volume: 16	Replication pairs per source volume: 4	Replication pairs per system: 64
Remote Replication (File Level)	Rsync with 128-bit SSH encryption between Infotrend EonStor GS, GSe and EonNAS		
Automated Storage Tiering ¹	Two(2) or four(4) storage tiers based on drive types SSD supports		
SSD Cache ¹	<ul style="list-style-type: none"> Accelerating data access for random read-intensive environments, such as OLTP Supports up to four SSDs per controller Recommended DIMM capacity for SSD Cache pool: DRAM:8GB Max SSD Cache Pool Size: 300GB DRAM:16GB Max SSD Cache Pool Size: 400GB DRAM:32GB Max SSD Cache Pool Size: 800GB DRAM:64GB Max SSD Cache Pool Size: 1,600GB DRAM:128GB Max SSD Cache Pool Size: 3,200GB DRAM:256GB Max SSD Cache Pool Size: 3,200GB 		
Cloud-integrated Solution ¹	<ul style="list-style-type: none"> Cloud Cache Cloud Tiering Cloud Backup 		
Access right management	<ul style="list-style-type: none"> User account management Group management Integration with Window® AD and LDAP Folder management - folder access control 		
Availability and Reliability	<ul style="list-style-type: none"> Redundant, hot-swappable hardware modules Trunk group support CacheSafe technology Multi-pathing support Device mapper support 		
Management	<ul style="list-style-type: none"> Web-based EonOne management software Automated cache flush and caching mode operation per enclosure status Module status LED indicators: component presence detection & thermal sensors via I2C bus Storage Resource Management to analyze history records of resource usage Automate repeatable management tasks by flexible workflow 		
Notification	Email, Fax, LAN broadcast, SNMP traps, SMS		
OS support	Microsoft Windows Server 2008 / 2008 R2 / 2012 / 2012 R2, Microsoft Windows Hyper-V, Red Hat Enterprise, Linux, SUSE Linux Enterprise, Sun Solaris, Mac OS X, VMware, Citrix XenServer, OpenStack Cinder		
Service and support	Standard service	3-year limited hardware warranty and 8x5 phone, web, and email support (Batteries are covered under warranty for 2 years)	
	Upgrade/extension options	Replacement part dispatch on the next business day (up to 5 years) Advanced service: 24x7 phone, web, and email support + onsite diagnostics on the next business day (up to 5 years) Premium service: 24x7 phone, web, and email support + onsite diagnostics in 4 hours (up to 5 years) Extended standard service up to 5 years	

¹ optional ² Available with Standard license and optional advanced license

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