Infortrend®

EonStor GS Family

Enterprise-Class Unified Storage Integrating SAN, NAS and Cloud

Highlight

- Consolidates SAN, NAS and Cloud in a single system to enjoy powerful storage features
- Automatically reconnected I/O during path failure
- Cache protection with super-capacitor and flash to ensure data safety
- IDR support ensures that all hard drives are healthy to prevent from rebuilding
- EonOne management interface provides a single control center for system management and resources monitoring

Introduction

The EonStor GS series forms the backbone of our high-performance enterprise storage solution with its powerful performance, flexibility, and high expandability helping to efficiently boost overall productivity. GS can handle large amounts of I/O and file transfers even under high workloads and are especially suitable for hybrid environments adopting SAN, NAS, and Cloud integration. It is perfect for those who want performance, capacity, and a high port count, and at the same time, it is ideal for budget-conscious applications as it can easily meet all general storage needs.

Symmetric Active-active Controllers

The EonStor GS Series supports symmetric active-active controller configuration for block-level data access to achieve little or no failover time in the event of a path failure.

This design is also able to minimize administrative efforts and boost operation efficiency. Hosts can access the same LUNs simultaneously via both controllers. I/O workloads are more evenly distributed across both controllers and all paths, effectively minimizing costly path management time.

Infinite Storage Capacity on Cloud

The key benefits of cloud storage solutions are their high service durability and the “scale on demand” flexibility allowing to expand storage as your business evolves. As a great on-premises cache/backup storage to cloud storage, EonCloud Gateway features both a wide range integration for both private cloud and public cloud solutions and smart data services such as heterogeneous cache modes, tiering and backup modes to automatically streamline the optimal data flow between local and cloud storage and also save costs.

Comprehensive Data Protection and Security

Security threats are not the only concern when it comes to safeguarding data. Unexpected disk failures, natural disasters, and power outages - all add up to the risk of data loss. EonStor GS series ensures that risk is minimal with its integrated backup functions such as Intelligent Drive Recovery (IDR), snapshot, local replication, remote replication, and file-level rsync.

PHYSICAL SPECIFICATIONS

Product Series		GS 1000 Gen2	GS 2000	GS 3000 Gen2	GS 4000 Gen2
Form Factor & Available Model	2U 12-bay	GS 1012**R2CF/S2CF**	GS 2012**R/S** GS 2012**RT/ST**	GS 3012**R2CF/S2CF**	GS 4012**R2CF/S2CF**
	2U 24-bay	GS 1024**R2CBF/S2CBF**	GS 2024**RB/SB** GS 2024**RTB/STB**	-	-
	2U 25-bay	-	-	GS 3025**R2CBF/S2CBF**	GS 4025**R2CBF/S2CBF**
	3U 16-bay	GS 1016**R2CF/S2CF**	GS 2016**R/S** GS 2016**RT/ST**	GS 3016**R2CF/S2CF**	GS 4016**R2CF/S2CF**
	4U 24-bay	GS 1024**R2CF/S2CF**	GS 2024**R/S** GS 2024**RT/ST**	GS 3024**R2CF/S2CF**	GS 4024**R2CF/S2CF**
	4U 60-bay	-	-	GS 3060**R2CLF/G2LF**	GS 4060**R2CLF/G2LF**
		Note: **G**: Non upgradable single controller **S**: Upgradable single controller **R**: Redundant controller **L**: One drawer **B**: 2.5" Form factor **2**: Gen2 **C**: Super capacitor **F**: Gateway			
Controller		Redundant or Upgradable single controller		Redundant or Non upgradable single controller or Upgradable single controller	
Cache Backup Techniques		Super capacitor+Flash module (Only for upgradable single controller and redundant controller models)			
CPU		Intel® Atom® 4 Core	Intel® Pentium® 2 or 4 core	Intel® Xeon® D 4 Core	Intel® Xeon® D 8 Core
Cache Memory (per system)		Default DDR3 16GB Expandable up to 32GB	Default DDR4 16GB Expandable up to 128GB	Default DDR4 16GB, Expandable up to 512GB	
Supported Drives		2.5" SAS or SATA SSD 2.5" 12Gb/s SAS 10,000 or 15,000 RPM HDD 3.5" 12Gb/s SAS 7,200 RPM HDD 3.5" 6Gb/s SATA 7,200 RPM HDD			
		Note: For the latest compatibility details, refer to our official website for the latest Compatibility Matrix.			
Max. Drives Number (via expansion enclosure)		448	896	896	896
Max. SSD Cache Pool		1TB	3.2TB	4TB	4TB
Onboard SAS Expansion Ports		2	2	4	4
Onboard 1GbE Ports		8	8	0	0
Onboard 10GbE Ports (SFP+)		0	0	8	8
Max. Host Board Slots		2	4	4	4
Max. Expansion Board		0	2	2	2
		Note: The expansion board can only be installed in the HB2 slot and has 12Gb/s SAS x 2 ports only connectable with expansion enclosures.			
Host Board Options		16Gb/s FC x 4 32Gb/s FC x 2 1GbE (RJ-45) x 4 10GbE (SFP+) x 2 10GbE (RJ-45) x 2 25GbE (SFP28) x 2 40GbE (QSFP+) x 2 12Gb/s SAS x 2		16Gb/s FC x 4 32Gb/s FC x 2 32Gb/s FC x 4 10GbE (SFP+) x 2 10GbE (RJ-45) x 2 25GbE (SFP28) x 2 40GbE (QSFP+) x 2 12Gb/s SAS x 2	
		Note: 1. The two controllers must have identical slot settings. 2. Fibre channel supports point-to-point and switch mode.			
Max. 16Gb/s FC Ports		8	16	16	16
Max. 32Gb/s FC Ports		4	8	16	16
Max. 1GbE Ports		16	24	0	0
Max. 10GbE Ports (RJ-45)		4	8	8	8
Max. 10GbE Ports (SFP+)		4	8	16	16
Max. 25GbE Ports (SFP28)		4	8	8	8
Max. 40GbE Ports (QSFP+)		4	8	8	8
Max. 12Gb/s SAS Ports		6	10	12	12
Expansion Enclosure (JBOD)		JB 3012A, JB 3016A, JB 3024BA, JB 3025BA, JB 3060L		JB 3012A, JB 3016A, JB 3025BA, JB 3060L	
Dimensions (without chassis ears/ protrusions) (W x H x D)		2U 12-bay: 449 x 88 x 500 mm 2U 24-bay: 449 x 88 x 500 mm 2U 25-bay: 449 x 88 x 500 mm		3U 16-bay: 449 x 130 x 500 mm 4U 24-bay: 449 x 174.4 x 500 mm 4U 60-bay: 447.6 x 176 x 840.9 mm	
Package Dimensions (W x H x D)		2U 12-bay: 780 x 379 x 588 mm 2U 24-bay: 780 x 338 x 588 mm 2U 25-bay: 780 x 340 x 588 mm		3U 16-bay: 780 x 423 x 588 mm 4U 24-bay: 780 x 465 x 588 mm 4U 60-bay: 620 x 460 x 1140 mm	
Power Supply Unit (with fan module)	Power Supplies (Redundant/hot-swappable)	460W x 2 (80 PLUS Bronze)		GS 3000/4000: 530W x 2 (80 PLUS Bronze) GS 3060L/4060L: 1200W x 2 (80 PLUS Platinum)	
	AC Voltage (with PFC(auto-switching))	100VAC @8A to 240VAC @4A		GS 3000/4000: 100VAC @10A to 240VAC @5A GS 3060L/4060L: 200-240VAC @7.08A	
	Frequency	50-60 Hz		GS 3000/4000: 47-63 Hz GS 3060L/4060L: 50-60 Hz	
		Note: Power is also supplied in redundant mode, allowing full operation with half the resources.			
Safety Standard		• Electromagnetic Compatibility : CE, BSMI, FCC • Safety : UL, BSMI, CB			

SOFTWARE SPECIFICATIONS

Max. Logical Drives Number		32
Max. Logical Drives Capacity		512TB
Configurable Stripe Size		16KB, 32KB, 64KB, 128KB, 256KB, 512KB, or 1024KB per logical drive
Configurable Writes Policy		Write-Back or Write-Through per logical drive. This policy can be modified.
Max. Pool Size		2PB
Max. Pool Number		32
Max. Volume Size		2PB
Max. Volume Number (per pool/per system)		1024
Max. Host LUN Mapping Number		4096
Max. Reserved Tag Number per Host-LUN Connection		Up to 256
Max. iSCSI Initiators (per controller)		832
Max. Host Connection Number (per FC)		128
RAID Options		RAID 0, RAID 1, RAID 3, RAID 5, RAID 6, RAID 10, RAID 30, RAID 50, RAID 60
Protocol Support	File Level Protocol	CIFS/SMB (Version 2.0/3.0), NFS (Version 2/3/4), AFP (Version 3.1.12), FTP/FXP (vsftp 2.3.4), WebDAV (httpd package 2.4.6)
	Block Level Protocol	FC, iSCSI, SAS
	Object Level Protocol	RESTful API
File Level	Max. File System Size	2PB
	Max. Number of User Accounts	20000
	Max. Number of User Groups	512
	Max. Number of Folder Sharing	2048 (NFS/CIFS/FTP) | 255 (AFP)
	Max. Number of Rsync Jobs	1024
	Max. Number of Rsync Concurrent Processes	64
	Max. Number of Concurrent Connections (NFS/CIFS/AFP/FTP)	• 16 GB memory: 200 • 32 GB memory: 512 • 64 GB memory: 1024 • 128 GB memory: 2048
Management		• User account management • Group management • Folder management - folder access control • Quota management • Integration with Microsoft Active Directory (AD) and LDAP • Folder encryption with AES • Web-based EonOne management software • Storage Resource Management to analyze history records of resource usage
Availability and Reliability		• Hot-swappable hardware modules • Device mapper support • Antivirus • Trunk group support • Cache Safe technology • UPS • WORM (For file level only) • SMB Multichannel
Notification		• Email • SNMP traps
Applications		• File explorer • Proxy server • Syslog server • VPN server • LDAP server • Docker
Cloud Feature		EonCloud Gateway supports the integration with following cloud providers: Amazon S3, Microsoft Azure, Alibaba Cloud, OpenStack, Baidu Cloud,Google Cloud, Tencent Cloud, Wasabi Cloud, etc. For complete information about cloud provides support, please refer to EonCloud Gateway webpage
OS Support		Microsoft Windows Server ,Red Hat Enterprise Linux, Mac OS X, VMware
		Note: For OS version support, please refer to the compatibility matrix.

DATA SERVICE

Self-encrypting Drives		Unique factory encryption secures data plus makes deletion simple and complete	
Thin Provisioning (Block-Level)(default included)		"Just-in-time" capacity allocation optimizes storage utilization and eliminates allocated but unused storage space	
Local Replication	Snapshot	Snapshot images per source volume	Standard License: 64 / Advanced License: 256
		Snapshot images per pool	Standard License: 128 / Advanced License: 4096
	Volume Copy/Mirror	Replication pairs per source volume	Standard License: 4 / Advanced License: 8
		Replication pairs per system	Standard License: 16 / Advanced License: 256
		Note: Standard license is included by default and advanced is an optional license	
Remote Replication (Block level)(optional)		Replication pairs per source volume: 8	
		Replication pairs per system: 64	
		Note: 1. The maximum number of replication pair per source volume is up to 8, regardless of remote asynchronous/remote synchronous/local volume pairs. 2. 4 x 16Gb FC and 2/4 x 32Gb FC host boards do not support Remote Replication.	
Remote Replication (File Level)		Support Rsync with 128-bit SSH encryption	
Automated Storage Tiering (optional)		2 or 4 storage tiers based on drive types	
		SSD supports	
		Automated data migration with scheduling options	
Block-level SSD Cache (optional)		Accelerating data access for random read-intensive environments, such as OLTP	
		Supports up to four SSDs per controller	
		Recommended DIMM capacity per controller for SSD Cache pool for GS 1000 Gen2, GS 2000	
		DRAM: 8GB	Max SSD Cache Pool Size: 400GB
		DRAM: 16GB	Max SSD Cache Pool Size: 600GB
		DRAM: 32GB	Max SSD Cache Pool Size: 1,000GB
		Recommended DIMM capacity per controller for SSD Cache pool for GS 3000/4000 Gen2	
		DRAM: 8GB	Max SSD Cache Pool Size: 500GB
		DRAM: 16GB	Max SSD Cache Pool Size: 1,000GB
		DRAM: 32GB	Max SSD Cache Pool Size: 2,000GB
		DRAM: 64GB and up	Max SSD Cache Pool Size: 4,000GB
File-level SSD Cache (optional)		Accelerating file operations, and data access performance for both read and write Supports up to eight SSDs per controller	

WARRANTY AND SERVICE

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 or Extension Options	Warranty extension: Can extended standard service up to 5 years The following Service can be upgraded to 5 years • Upgrade: Replacement part dispatch on the next business day • Advanced service: 24x7 phone, web, and email support + onsite diagnostics on the next business day • Premium service: 24x7 phone, web, and email support + onsite diagnostics in 4 hours
		Note: Options may vary by region. For more details, please contact our sales representatives.
	Technical Support	Get information on system installation and maintenance, download technical documents and software, or issue a support ticket
	Product Services	Register products, download firmware, apply for licensing services, create product repair tickets, or check product repair status

Asia Pacific (Taipei, Taiwan)
Infortrend Technology, Inc.
Tel : +886-2-2226-0126
E-mail : sales.ap@infortrend.com

China (Beijing, China)
Infortrend Technology, Ltd.
Tel : +86-10-6310-6168
E-mail : sales.cn@infortrend.com

Japan (Tokyo, Japan)
Infortrend Japan, Inc.
Tel : +81-3-5730-6551
E-mail : sales.jp@infortrend.com

Americas (Sunnyvale, CA, USA)
Infortrend Corporation
Tel : +1-408-988-5088
E-mail : sales.us@infortrend.com

EMEA (Basingstoke, UK)
Infortrend Europe Ltd.
Tel : +44(0)-1256-305-220
E-mail : sales.eu@infortrend.com