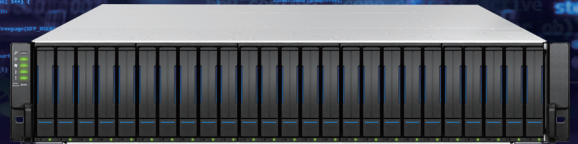




EonStor GS U.2 NVMe Storage

Enterprise-Class Unified Storage Integrating SAN, NAS, and Cloud



Highlight

Extreme Performance

- Up to 1000K end-to-end IOPS to accelerate storage operations
- Massive sequential throughput of up to 22GB/s read and 8.5GB/s write

Flexible Scalability

- Scale-out and scale-up expansion to easily expand performance and capacity to more than 40PB

Easier to Use and Manage

- Provides single namespace for easier access and auto-balancing to reduce the burden of IT storage management

Maximized Storage Efficiency

- U.2 NVMe SSDs for high-performance IO and NL-SAS/ SATA HDDs for massive data archive with automated storage tiering

Optimized for U.2 NVMe SSD

- Built-in intelligent algorithm to increase SSD lifespan and prevent simultaneous failure of multiple SSDs and consequent the data loss

Introduction

EonStor GS U.2 NVMe storage is a high performance storage solution for enterprises. Equipped with U.2 NVMe SSD, it provides higher IOPS and throughput and is more cost-effective. GS U.2 is a unified storage that supports both SAN and NAS services. With block-level and file-level scale-out support, it can linearly increase performance and capacity. Complete data protection allows IT staff to focus on higher value projects. It is a perfect fit for such applications as HPC, M&E, virtualization, and database.

High Performance with U.2 NVMe SSD

With U.2 NVMe SSD's high speed and low latency PCIe Interface, GS U.2 NVMe storage provides up to 22/8.5 GB/s read/write performance and 1000K IOPS within a single appliance.

Flexible Scalability with Scale-out and Scale-up

EonStor GS can create storage clusters through the scale-out horizontal expansion function, linearly expand performance and storage capacity. You can easily manage data as GS provides the scale-out architecture for both SAN and NAS. Through scale-out expansion, cluster performance can linearly increase as you add more appliances. As for capacity expansion, EonStor GS U.2 NVMe storage supports both scale-out and scale-up with more than 3000 drives.



Easy Data Access for Users and Simple IT Management

Users can access shared folders in a single root directory under a single namespace, so that they don't need to worry about where the data is placed. Auto-balancing is also supported to achieve the benefit of load balancing without the burden of manual IT planning and configuration.

Higher Storage Efficiency with Lower TCO

EonStor GS U.2 NVMe storage supports hybrid storage. And with the automated storage tiering function, EonStor GS U.2 NVMe storage can automatically leverage the high throughput and low latency feature of U.2 NVMe SSDs to deliver faster performance for frequently accessed data, while making better use of HDDs in the expansion enclosure as data backup media, thereby boosting system performance and reducing the cost of ownership.

Intelligent Management of SSD Drives

EonStor GS U.2 NVMe storage has an intelligent algorithm that arranges data to be written in the storage appliance. The algorithm not only reduces the total amount of writes on an SSD to prolong its lifespan but also prevents multiple SSDs from failing at the time and causing data loss. In addition, as EonStor GS U.2 NVMe storage monitors SSD status in real time, it can estimate its remaining lifespan and sends a notification to remind the administrator to replace the SSD which is about to fail.

Complete Data Protection and Backup

EonStor GS U.2 NVMe storage offers multiple data protection features to guarantee that data is tightly protected. For solid-state drive, EonStor GS U.2 NVMe storage incorporated Infortrend's unique RAID technology which helps the system to run normally while ensuring your data is fully protected even when disks get damaged. In terms of local data backup, GS U.2 NVMe storage supports a flexible backup solution – snapshot. User can back up all the resources within the storage system by schedule, including volumes, shared folder, and fulfill rollback to a previous version at any time. As for remote backup, you can use the remote replication feature to back up the files to a remote GS appliance, or even to a public cloud, using EonCloud gateway feature.

High Reliability

From power supplies, fans, controllers, to host boards, the modular design of all these hardware components lowers maintenance complexity and provides fast and precise technical support and RMA services, keeping EonStor GS U.2 NVMe storage safe from any downtime to maintain nonstop services and increase productivity and competitiveness.

Easy Management

With the constant evolution of storage platforms, the GS U.2 NVMe storage adopted EonOne management software to assist customers in improving storage and service efficiency for increased productivity. Its intuitive interface design allows centralized management of cluster and multiple appliances, monitoring of performance and capacity usage, and completion of all related system configurations.

PHYSICAL SPECIFICATIONS

Product Series		GS 2000U		GS 3000U		GS 4000U	
Form Factor	2U 24-bay	GS 2024UR/US		GS 3024UR/US		-	
	2U 25-bay	-		-		GS 3025UR/US	
						GS 4025URT/UST	
Note: U: U.2 NVMe storage, S: Upgradable single controller, R: Redundant controller, T: High performance							
Controller		Redundant or Upgradable single controller					
Cache Backup Technology (Optional / not default included on Single Controller models)		Super capacitor+Flash module (Only for upgradable single controller and redundant controller models)					
CPU		Intel® Xeon® D 2-Core		Intel® Xeon® D 4-Core		Intel® Xeon® D 4-Core	
Cache Memory (per system)		Default DDR4 16GB Expandable up to 128GB		Default DDR4 16GB Expandable up to 128GB		Default DDR4 16GB Expandable up to 512GB	
Supported Drives		Bundle 2.5" U.2 NVMe SSD					
Note: For the latest compatibility details, refer to our official website for the latest Compatibility Matrix.							
Max. Drives Number	via expansion enclosure, per appliance	896					
	via scale-out with other series of appliances, per cluster	3584					
Onboard 12Gb/s SAS Ports (For JBOD Expansion)	Single controller	1		1		2	
	Redundant controller	2		2		4	
Onboard 10GbE Ports (SFP+)	Single controller	0		2		4	
	Redundant controller	0		4		8	
Max. Host Board Slots	Single controller	2					
	Redundant controller	4					
Max. Expansion Board	Single controller	1					
	Redundant controller	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/ 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. For redundant controller models, identical host boards must be installed in the same order on both controllers. 2. FC connectivity supports DAS (Direct-Attached-Storage) connection via FC HBA cards and switched fabric connection.							
Max. 16Gb/s FC Ports	Single controller	8					
	Redundant controller	16					
Max. 32Gb/s FC Ports	Single controller	8					
	Redundant controller	16					
Max. 10GbE Ports (RJ-45)	Single controller	4					
	Redundant controller	8					
Max. 10GbE Ports (SFP+)	Single controller	4		6		8	
	Redundant controller	8		12		16	
Max. 25GbE Ports (SFP28)	Single controller	4					
	Redundant controller	8					
Max. 40GbE Ports (QSFP+)	Single controller	4					
	Redundant controller	8					
Max. 12Gb/s SAS Ports	Single controller	4					
	Redundant controller	8					
Expansion Enclosure (JBOD)		JB 3012A, JB 3016A, JB 3024BA, JB 3025BA, JB 3060L					
Dimensions (without chassis ears / protrusions) (W x H x D)		449 x 88 x 500 mm			449 x 88 x 589.6 mm		
Package Dimensions (W x H x D)		780 x 338 x 588 mm			794 x 369 x 596 mm		
Power supply unit	Power Supplies	Redundant (1+1) hot-swappable 530W x 2 (80 PLUS Bronze)			Redundant (1+1) hot-swappable 800W x 2 (80 PLUS Platinum)		
	AC voltage	100VAC @ 10A to 240VAC @ 5A			100-127VAC @ 10A to 200-240VAC @ 5A		
	Frequency	50-60 Hz			47-63 Hz		
Safety Standard		<ul style="list-style-type: none"> Electromagnetic Compatibility : CE, BSMI, FCC Safety : UL/cUL, 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 5/5F, RAID 6/6F, 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	<table border="0"> <tr> <td>NFS/CIFS/AFP</td> <td> <ul style="list-style-type: none"> 16 GB memory: 200 32 GB memory: 512 64 GB memory: 1024 128 GB memory: 2048 </td> </tr> <tr> <td>FTP</td> <td> <ul style="list-style-type: none"> With any memory: 1024 </td> </tr> </table>	NFS/CIFS/AFP	<ul style="list-style-type: none"> 16 GB memory: 200 32 GB memory: 512 64 GB memory: 1024 128 GB memory: 2048 	FTP
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FTP	<ul style="list-style-type: none"> With any memory: 1024 				
Management	<ul style="list-style-type: none"> Web-based EonOne management software User account management Group management Folder management - folder access control 	<ul style="list-style-type: none"> Quota management Folder encryption with AES Integration with Microsoft Active Directory (AD) and Linux LDAP Storage Resource Management to analyze history records of resource usage 			
Availability and Reliability	<ul style="list-style-type: none"> Redundant, hot-swappable hardware modules Device mapper support Antivirus Trunk group support 	<ul style="list-style-type: none"> Cache Safe technology UPS WORM (For file level only) SMB Multichannel 			
Notification	<ul style="list-style-type: none"> Email 	<ul style="list-style-type: none"> SNMP traps 			
Applications	<ul style="list-style-type: none"> File explorer Proxy server 	<ul style="list-style-type: none"> Syslog server VPN server 			
Cloud Feature	<p>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.</p> <p>For complete information about cloud provides support, please refer to EonCloud Gateway webpage https://www.infortrend.com/global/solutions/eoncloud</p>				
OS Support	<p>Microsoft Windows Server 2019/2016/2012R2/2012/2008R2/2008, Windows 7 SP1, Windows 8.1, Microsoft Windows Hyper-V, Red Hat Enterprise Linux, SUSE Linux Enterprise, Sun Solaris, Mac OS X, VMware, Citrix XenServer, OpenStack Cinder</p> <p>Note: For OS version support, please refer to the compatibility matrix</p>				

DATA SERVICE

Self-encrypting Drives	Default	Unique factory encryption secures data plus makes deletion simple and complete			
Thin Provisioning	Default	"Just-in-time" capacity allocation optimizes storage utilization and eliminates allocated but unused storage space			
Local Replication	File level	Optional	Snapshot images per folder: 1024		
	Snapshot	Block level	Default	Snapshot images per source volume: 64	Snapshot images per pool: 128
		Optional	Snapshot images per source volume: 256	Snapshot images per pool: 4096	
	Volume Copy/Mirror	Default	Replication pairs per source volume: 4	Replication pairs per system: 16	
		Optional	Replication pairs per source volume: 8	Replication pairs per system: 256	
Remote Replication	File-level	Default	Support Rsync with 128-bit SSH encryption		
	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. 4x 16Gb FC and 2/4x 32Gb FC host boards do not support Remote Replication			
Automated Storage Tiering	Optional	2 or 4 storage tiers based on drive types			
Scale-out	File-level	Default	1 dual controller appliance within single cluster		
		Optional	Growing from 1 appliance with up to a 4 appliances cluster		
	Block-level	Default	Growing from 1 appliance with up to a 4 appliances cluster		

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 <ul style="list-style-type: none"> • 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	

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