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# **EonStor GSi**

Integrate with GPU, Linux operating system and unified storage

## **Highlights**

#### **All-in-One Design**

With integrated into a single system computing and storage services, users do not need to separately install computing hosts and storage arrays, which simplifies the installation process and reduces configuration costs.

#### Cable-less Modular Design\*

All hardware components have cable-less and modular design, helping to quickly and easily replace damaged components for reducing maintenance complexities. The components are hot-swappable, which means that users do not need to stop the system when replacing them. GSi also provides redundant power supply and fan, eliminating the risk of service interruption caused by damage of a single component.

\* Only GSi 5016 supports modular design

### Introduction

EonStor GSi is an integrated computing storage system for AI applications . It is equipped with a Linux system, allowing users to install AI-related applications on the Docker platform. Based on Infortrend's more than 25 years of R&D experience, GSi provides enterprise-level unified storage services with high performance, high capacity, and complete data protection.

#### **Flexible Configuration of Computing System**

GSi product line has desktop and rackmount models. It satisfies the needs of various AI applications, so you can select a suitable solution based on application performance, specifications, the number of processors and graphics cards, and budget considerations.

#### **Storage Services for AI Applications**

Whether your AI operating environment is block level or file level, GSi can integrate into it smoothly. GSi storage system provides high storage performance to quickly read data from the storage pool and import it into the computing system. Storage capacity can be expanded to up to 7PB by connecting expansion enclosures with up to 436 hard drives.

#### **Complete Data Service and Protection**

GSi offers snapshots, local replication, and remote replication for computing data backup. To avoid data loss caused by disk failures, the storage system can be configured with varied RAID protection levels. With EonCloud Gateway, GSi can integrate with public and private cloud platforms in different modes: Cloud caching and data tiering modes accelerate cloud data access, while backup mode automatically backs up locally stored data to the cloud.

You can also leverage the immutable object storage and WORM (write once read many) to safeguard data from ransomware attacks. As an extra layer of protection for administrative account access, multi-factor authentication (MFA) is supported to reduce the risk of malicious attacks following password theft.

#### **Easy Management**

EonOne is a dedicated graphical management interface for GSi. With just a few clicks, system administrators can install and manage AI applications on Docker, as well as set storage system configurations and monitor system status and storage usage in real time.

#### PHYSICAL SPECIFICATIONS

Product Series		GSi 200 GSi 5000			5000		
Form Factor	8-bay Desktop	GSi 208T	-	-	-	-	
	3U 16-bay	-	GSi 5016GL	GSi 5016GE	GSi 5016GT	GSi 5016GU	
CPU		Intel <sup>®</sup> Pentium <sup>®</sup> Processor D-1517 4-Core 1.60 GHz"	Intel <sup>®</sup> Core ™ i3-8100 4-Core 3.6GHz	Intel <sup>®</sup> Xeon <sup>®</sup> E-2226GE 6-Core 3.4GHz	Intel <sup>®</sup> Xeon <sup>®</sup> E-2276G 6-Core 3.8GHz	Intel <sup>®</sup> Xeon <sup>®</sup> E-2278GE 8-Core 3.3GHz	
Cache Memory		DDR4 8GB (non-ECC) Expandable to 32GB	DDR4 16GB Expandable to 128GB				
Supported Drives		2.5" SATA SSD 3.5" SATA HDD (7,200 RPM)	2.5" SAS/SATA SSD 3.5" 6Gb/s SATA 7,200 RPM HDD 3.5" 12Gb/s NL-SAS 7,200 RPM HDD				
Max. Drives Number		8	436				
Rear I/O Port		<ul> <li>mini USB x 1</li> <li>1Gb/s (RJ-45) x 2</li> <li>10Gb/s (SFP+) x 2</li> <li>USB 3.0 x 2</li> <li>USB 3.1 Gen2 x 2</li> </ul>	<ul> <li>mini USB x 1</li> <li>1Gb/s (RJ-45) x 4</li> <li>SAS 12Gb/s (for JBOD) x 1</li> <li>USB 2.0 x 2</li> <li>USB 3.0 x 2</li> </ul>				
PCI-Express Slot (For GPU)		(PCIE x 8) x 1	(PCIE x 8) x 2				
Dimensions (without Chassis Ears and Protrusions) (W x H x D)		345 x 168 x 254mm	447.4mm x 130mm x 500mm				
Package Dimensions (W x H x D)		456 x 269 x 366mm	780mm x 253mm x 588mm				
	Power Supplies	250W (80 PLUS Bronze)	800W (80 PLUS Platium) (Redundant / Hot-swappable)				
Power Supply Unit	AC Voltage (with PFC(Auto-switching))	100VAC @ 8A to 240VAC @ 4A	100-127VAC @ 10A to 200-240VAC @ 5A				
	Frequency	50-60 Hz					
Environmental (Without GPU)	Temperature	Operating: 0 to 40°C, Non-operating: -40 to 60°C					
	Altitude	Operating: sea level to 3,660m (12,000ft), Non-operating: sea level to 12,192m (40,000ft)					
	Relative humidity	5 to 95% non-condensing, operating and non-operating					
Safety Standard		Electromagnetic Compatibility : CE, BSMI, FCC     Safety : UL, BSMI, CB					

#### SOFTWARE SPECIFICATIONS

Max. Logical Drive			32				
Max. Logical Drives Capacity			512 TB				
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					
Max. Pool Size			2PB	Max. Host LUN Mapping Numl	ber	4096	
Max. Pool Number			32	Max. Reserved Tag Number per Host-LUN Connection		Up to 256	
Max. Volume Size			2PB	Max. iSCSI sessions (per controller)		416	
Max. Volume Number (per pool/per system)			1024	Max. Host Connection Number	r (per FC)	128	
RAID Options			RAID 0, RAID 1, RAID 3, RAID 5, RAID 6, RAID 10, RAID 30, RAID 50, RAID 60				
	File Level Protocol		CIFS/SMB (Version 2.0/3.0), NFS (Version 2/3/4), AFP (Version 2.2.2), FTP/FXP (vsftp 2.3.4), WebDAV (httpd package 2.4.6)				
Protocol Support	Block Level Protocol		FC, iSCSI, SAS				
	Object Level Pro	tocol	RESTful API				
	Max. File Systen	n 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)				
File Level	Max. Number of Rsync Jobs		1024				
	Max. Number of Rsync Concurrent Processes		64				
	Max. Number	NFS/CIFS/AFP	• 16 GB memory: 200	• 32 GB memory: 512	• 64 GB memory: 1024	• 128 GB memory: 2048	
	of Concurrent Connections	FTP	• With any memory: 1024				
Management			Muti-factor authentication login mechanism     User account management     Group management     Folder management - folder access control     Quota management			AES anagement software	
Availability and Reliability			Immutable object storage     Hot-swappable hardware mo     Device mapper     Antivirus     Trunk group	dules	Cache safe technology     UPS     WORM (file level only)     SMB Multichannel		
Notification			• Email	SNMP traps			
Applications			<ul><li>File explorer</li><li>Proxy server</li></ul>	<ul><li>Syslog server</li><li>VPN server</li></ul>	<ul><li>LDAP serve</li><li>Docker</li></ul>		
Supported Cloud Services			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				
Supported OS			Microsoft Windows Server ,Red Hat Enterprise Linux, Mac OS X, VMware				
			Note: For OS version support, please refer to the compatibility matrix.				

Thin Provisioning Default		"Just-in-time" capacity allocation optimizes storage utilization and eliminates allocated but unused storage space.				
Local Replication		File level		Snapshot images per folder: 1024		
	Snapshot		Default	Snapshot images per source volume: 64	Snapshot images per pool: 128	
		Block level	Optional	Snapshot images per source volume: 256	Snapshot images per pool: 4096	
		Volume Copy/Mirror		Replication pairs per source volume: 4	Replication pairs per system: 16	
	Volume Cop			Replication pairs per source volume: 8	Replication pairs per system: 256	
		File level	Default	Support Rsync with 128-bit SSH encryption		
				Replication pairs per source volume: 8	Replication pairs per system: 64	
Remote Replication		Block level	Optional	<ul> <li>Note: 1. The maximum number of replication pairs per source volume is 8, whether they are remote asynchronous pairs, remote synchronous pairs, or local volume pairs.</li> <li>2. 16Gb FC x 4, 32Gb FC x 2, and 32Gb FC x 4 host boards do not support Remote Replication.</li> </ul>		
Automated Storage Tiering 0		Optional	Storage tiers per pool: 4			
			Accelerating data access for random read-intensive environments, such as OLTP			
			Supports up to four SSDs per controller			
SSD Cache Block-lev			vel Optional	Recommended DIMM capacity for SSD Cache pool:		
		Block-level		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		
				DRAM: 64GB Max SSD Cache Pool Size: 1,600GB		
				DRAM: 128GB and up	Max SSD Cache Pool Size: 3,200GB	

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	<ul> <li>Warranty extension: Standard service can be extended up to 5 years.</li> <li>The following service can be upgraded to 5 years.</li> <li>Upgrade: Replacement part dispatch on the next business day</li> <li>Advanced service: 24x7 phone, web, and email support + onsite diagnostics on the next business day</li> <li>Premium service: 24x7 phone, web, and email support + onsite diagnostics in 4 hours</li> </ul>				
		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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