



EonStor GSi Family AI Storage Appliance

Gaining competitive advantages with
Artificial Intelligence(AI)

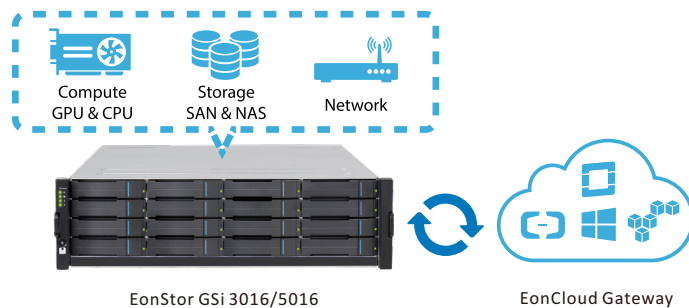


Product Highlights

- **Implement AI Solution the Easier Way**-GSi incorporates Compute (GPU/CPU), storage (SAN and NAS), network, and Cloud in an all-in-one box so Enterprises can get into AI right away
- **Support Major AI Frameworks**-GSi supports popular frameworks such Caffe, Caffe2, CNTK, Keras, MXNet, TensorFlow, Theano, and more
- **Manage AI Applications with User Friendly GUI**-GSi comes with EonOne, the central management software, as well as GUI-based Docker interface to easily develop and deploy applications.
- **Powerful NAS, SAN, and Cloud Storage Capability**-GSi inherited GS line's superior storage capability and supports file-level, block-level, and cloud applications with PB-level capacity, high throughput, and data protection features
- **Connect to the Cloud with EonCloud Gateway**-GSi supports major cloud services such as Amazon S3, Microsoft Azure, Openstack Swift, and Alibaba Cloud with EonCloud Gateway and can optimize data storage resources between edge and cloud.

Introduction

EonStor GSi storage family is an AI storage appliance designed for enterprises that demand integrated system and combines storage (SAN and NAS), compute (CPU and GPU), and network all-in-one box. Essentially, GSi is the GS storage with integrated GPUs and Docker platform with GUI that can easily implement machine learning (ML) and deep learning (DL) applications.

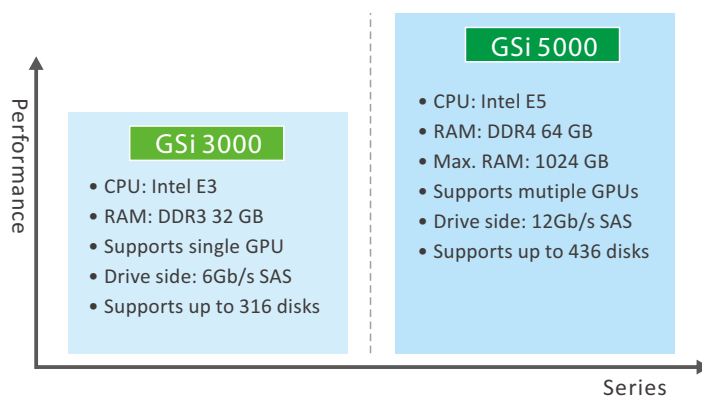


GSi supports popular frameworks such Caffe, Caffe2, CNTK, Keras, MXNet, TensorFlow, and Theano, allowing organizations to implement ML/DL applications such as facial recognition, intelligent video analytics, financial modeling, medical analysis, and others.

GSi inherited GS line's superior storage capability and supports file-level, block-level, and cloud applications with PB-level capacity, high throughput, Cloud Gateway and data protection features. With this capability all training dataset are saved, processed, and retrieved within the appliance for maximum performance.

GSi family has two series. GSi 3000 is the cost-effective Inference solutions best suited for AIoT & edge computing. GSi 5000 is the high performance solution good for ML/DL models training.

GSi Portfolio



Specifications (per system)

GSi 3016

GSi 5016

Form factor		3U 16-bay
Storage controller		Single controller
Max drives	316	436
Power supply unit ¹	Power Supply: Two redundant 530W Voltage and Frequency: 100~127Vac, 200~240Vac, 47-63Hz	Power Supply: Two redundant 1200W PSU Frequency: 200-240Vac, 47-63Hz
CPU	1 x Intel E3 4-core	2 x Intel E5 8-core
Memory	32GB DDR3	64GB, 128GB, 256GB, 512GB, 1024GB DDR4
Onboard SAS expansion ports	1	1
Onboard iSCSI ports (10Gb SFP+)	0	2
Onboard iSCSI ports (1Gb RJ-45)	4	4
USB ports		USB 3.0 x 2 USB 2.0 x 2
Max. number of logical drives		32
Max. logical drive capacity		512 TB
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		2 PB
Max. number of pools		32
Max. number of volumes (per pool/ per system)		1024
Max. number of LUNs mappable		4000
Max. volume size		2 PB
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 CIFS/ SMB: Version 2.0/3.0, NFS: Version 2/3/4, AFP, FTP, FXP, WebDAV Block Level Protocol iSCSI, SAS Object Level Protocol Openstack Swift	
Cloud gateway	Support the integration with following cloud providers: Amazon S3, Microsoft Azure, Alibaba Cloud	
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 	

GSi 3016

GSi 5016

Available models	GSi 3016G	GSi 5016G
Supported drives		2.5 or 3.5 "HDD, SSD
Rack Support		4U, 19-inch rackmount
Dimensions	447.4 (W) x 130 (H) x 500 mm(D)	449 (W) x 130 (H) x 650mm (D)
Package Dimensions		591 (W)x295(H)x800mm (D)
Expansion enclosure(JBOD)		JB3016/JB3060G/JB3060GL

Data Service

	Snapshot	Snapshot images per source volume Snapshot images per system Standard License: 128 / Advanced License: 4096 Standard License: 64 / Advanced License: 256																
Local Replication (Standard license is included by default and advanced is an optional license)	Volume Copy/Mirror	Replication pairs per source volume Replication pairs per system Standard License: 4 / Advanced License: 8 Standard License: 16 / Advanced License: 256																
Thin Provisioning	"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																	
Block level-Remote Replication (optional) ^{*1}	Replication pairs per source volume: 8 Replication pairs per system: 64																	
File Level-Remote Replication	Rsync with 128-bit SSH encryption between Infotrend EonStor GS, GSe and EonNAS																	
Automated Storage Tiering (optional)	Two(2) or four(4) storage tiers based on drive types SSD supports																	
SSD Cache(optional)	<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: <table border="0"> <tr> <td>DRAM:8GB</td> <td>Max SSD Cache Pool Size: 300GB</td> <td>DRAM:128GB</td> <td>Max SSD Cache Pool Size: 3,200GB</td> </tr> <tr> <td>DRAM:16GB</td> <td>Max SSD Cache Pool Size: 400GB</td> <td>DRAM:256GB</td> <td>Max SSD Cache Pool Size: 3,200GB</td> </tr> <tr> <td>DRAM:32GB</td> <td>Max SSD Cache Pool Size: 800GB</td> <td>DRAM:512GB</td> <td>Max SSD Cache Pool Size: 3,200GB</td> </tr> <tr> <td>DRAM:64GB</td> <td>Max SSD Cache Pool Size: 1,600GB</td> <td>DRAM:1024GB</td> <td>Max SSD Cache Pool Size: 3,200GB</td> </tr> </table>		DRAM:8GB	Max SSD Cache Pool Size: 300GB	DRAM:128GB	Max SSD Cache Pool Size: 3,200GB	DRAM:16GB	Max SSD Cache Pool Size: 400GB	DRAM:256GB	Max SSD Cache Pool Size: 3,200GB	DRAM:32GB	Max SSD Cache Pool Size: 800GB	DRAM:512GB	Max SSD Cache Pool Size: 3,200GB	DRAM:64GB	Max SSD Cache Pool Size: 1,600GB	DRAM:1024GB	Max SSD Cache Pool Size: 3,200GB
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EonCloud Gateway (Standard license is included by default and Enterprise/Ultimate is an optional license)	File-level Cache Mode: A copy of frequently accessed file is kept on local storage and all files is also upload to cloud Sync Mode: Synchronizing files between local storage and cloud. Block Level Cache Mode: A copy of frequently accessed data is kept on local storage and all data is also flushed to cloud Backup Mode: All data is kept on local storage and all data is also flushed to cloud Tiering Mode: Frequently accessed data is kept on local storage and infrequently accessed data is migrated to cloud																	
Access right management	<ul style="list-style-type: none"> User account management Group management Folder management - folder access control Quota management Integration with Windows® AD and LDAP Folder encryption with AES 																	
Availability and reliability	<ul style="list-style-type: none"> Redundant, hot-swappable hardware modules CacheSafe technology Multi-pathing support Antivirus Trunk group support Device mapper support UPS WORM (For file level only) 																	
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, SNMP traps																	
Applications	<ul style="list-style-type: none"> File explorer Proxy server Syslog server VPN server LDAP server Docker 																	
OS support	Microsoft Windows Server 2008 / 2008 R2 / 2012 / 2012 R2 / 2016, 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																
	Infotrend Service Center	Request Support, Knowledge Base, Download Center, Licensing Service, and News																

1. The maximum number of replication pair per source volume is up to 8, regardless of remote asynchronous/remote synchronous/local volume pairs

EonCloud Gateway Version

Feature	EonCloud Gateway Standard	EonCloud Gateway Enterprise	EonCloud Gateway Ultimate
Models applied	All Models(Standard) can be upgraded to EonCloud Enterprise or Ultimate version		
Cloud folder sync/cache	V	V	V
Max. cache settings	5(90 days trial)	5	10
Cache policy and function parameters	All(90 days trial) ³	Default(LRU) Low priority High priority 90 days trial for others	All ²
Cloud volume cache	(90 days trial)	V	V
Cloud volume backup	(90 days trial)	V	V
Cloud volume tier	(90 days trial)	V	V
Max. connected folder	5	5	32
Max. connected volume	5	5	32
Cloud folder cache size	≤ 1TB	≤ 2PB	≤ 2PB
Cloud volume capacity	≤ 1TB	≤ 2PB	≤ 2PB

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