



EonStor GSa Gen 1 Series

Wide-ranging all-flash array choices for modernized data center

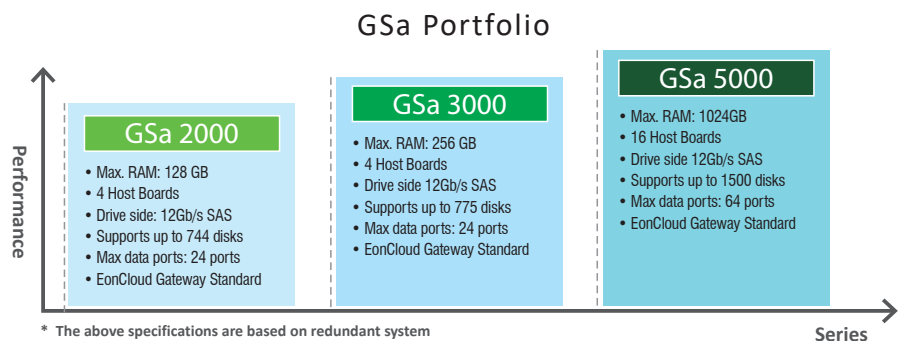
Highlight

- Powerful unified storage performance and supports both block and file-level applications.
- Optimized SSD performance with low latency that can handle more than 700K IOPS for random reads with response time of less than 0.5 milliseconds.
- High availability with redundancy achieved by no single point of failure technology. (redundant controller hardware)
- EonOne - an easy to use interface for storage management and offers web-based management interface.
- EonCloud gateway ready for future-proof expansion.
- Rich selections of host interfaces: FC 32Gb/s, 16Gb/s, iSCSI 40GbE, 25GbE, 10GbE, 1GbE and 12Gb/s SAS.
- Cache Backup Module (CBM) with backup power to store cache data to flash module and prevent potential data loss.
- Modular design lowers maintenance complexity of the power supplies, fans, controllers and host boards.

Introduction

EonStor GSa all flash unified storage is designed for enterprise to speed-up workloads with wider range of product selections in terms of performance, connectivity, and form factor choices to fit any budget constraints. Coupling with Infotrend's powerful unified storage performance, high availability design, and future-proof EonCloud gateway features, EonStor GSa family can be your best choice to modernize your data center in all aspects.

EonStor GSa family inherited company's GS line of superior unified storage performance and available in 3 series. EonStor GSa 2000 and 3000 series are the cost-performance solutions. GSa 5000 series, on the other hand, offers the highest performance all flash technology designed for extreme I/O workloads.



It also offers high availability in all aspects. Its redundant controller hardware design supports SAS/SATA bridge board for compatibility with cost-effective SATA SSDs. Its firmware is embedded with Intelligent Drive Recovery (IDR) technology as well as the SSD lifespan monitoring features to ensure data availability. In addition, GSa provides optional EonCloud gateway that connects to cloud services such as Amazon S3, Microsoft Azure, OpenStack Swift, etc. for future-proof support of capacity expansion or remote-backup application to the cloud.

These AFAs are for high performance enterprise applications such as database, virtualization, VDI, Microsoft Exchange, media/entertainment-related applications.



PHYSICAL SPECIFICATIONS

Product Series		GSa 2000	GSa 3000 Gen1	GSa 5100	GSa 5200
Form Factor	2U 24-bay	GSa 2024R/S GSa 2024RT/ST	-	-	-
	2U 25-bay	-	GSa 3025R/S GSa 3025RT/ST	-	-
	4U	-	-	GSa 5100R	GSa 5200R
Note: 1. T: High performance S: Single controller(upgradable to dual controller) R: Redundant controller C: Super capacitor L: BBU(for GS 5000) 2. 4U models no internal bay, expansion enclosure required.					
Controller	Single or Dual-redundant or Single upgradable to redundant			Dual-redundant	
Cache Backup Techniques	Super capacitor+Flash module (only for upgradable single controller and dual controller models)			BBU+Flash module	
CPU	Intel® Pentium® 2 or 4 core	Intel® Xeon® D 4 or 6 Core		Intel® Xeon® E5 8 Core	
Cache Memory	Default DDR4 16GB Expandable up to 128GB	Default DDR4 16GB Expandable up to 256GB	Default DDR4 16GB Expandable up to 512GB	Default DDR4 32GB Expandable up to 1024GB	
Supported Drives	Bundle SSD				
Max. Drives Number (with expansion board)	744	775	750	750	
Max. SSD Cache Pool	3.2TB	3.2TB	3.2TB	3.2TB	
Max. Onboard SAS Expansion Ports	2	4	8	8	
Max. Onboard 1GbE ports	8	4	0	0	
Max. Onboard 10GbE ports (RJ-45)	0	4	0	0	
Max. Host Board Slots	4	4	4	16	
Max. Expansion Board	2	2	4 (Default included)	4 (Default included)	
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 4 10GbE (RJ-45) x 2 40GbE (QSFP+) x 2 12Gb/s SAS x 2	
	Note: 1. The two controllers must have identical slot settings. 2. Fibre channel support is point-to-point and switch mode. 3. For GSa 5100, the host boards should be installed in HB7~8. For GSa 5200, the host boards should be installed in HB1~8.				
Max. 16Gb/s FC Ports	16	16	16	64	
Max. 32Gb/s FC Ports	8	8	8	32	
Max. 1 GbE Ports	24	20	0	0	
Max. 10GbE Ports (RJ-45)	8	12	8	32	
Max. 10GbE Ports (SFP+)	8	8	0	0	
Max. 40GbE Ports (QSFP+)	8	8	8	32	
Max. 12Gb/s SAS Ports	10	12	16	40	
Expansion Enclosure (JBOD)	JB 3024BA	JB 3025BA	JB 3025BA		
Dimensions (without chassis ears/ protrusions) (W x H x D)	449 x 88 x 500 mm	449 x 88 x 500 mm	449 x 175.3 x 547.7 mm		
Package Dimensions (W x H x D)	780 x 338 x 588 mm	780 x 340 x 588 mm	591 x 295 x 800 mm		
Power Supply Unit (with fan module)	Power Supplies (Redundant/hot-swappable)	460W x 2 (80 PLUS Bronze)	530W x 2 (80 PLUS Bronze)	1200W x 2 (80 PLUS Platinum)	
	AC Voltage (with PFC(auto-switching))	100VAC @8A to 240VAC @4A	100VAC @10A to 240VAC @5A	100-127VAC @12.47A, 200-240VAC @7.08A	
	Frequency	50-60 Hz	47-63Hz		
Note: Power is also supplied in redundant mode, allowing full operation with half the resources.					
Safety Standard	<ul style="list-style-type: none"> Electromagnetic Compatibility: CE, BSMI, FCC Safety: UL, BSMI, CB 				

SOFTWARE SPECIFICATIONS

Max. Logical Drives Number	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. 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 2.2.2), FTP/FXP (vsftpd 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)	<ul style="list-style-type: none"> • 16 GB memory: 200 • 32 GB memory: 512 • 64 GB memory: 1024 • 128 GB memory: 2048 	
Management	<ul style="list-style-type: none"> • User account management • Group management • Folder management - folder access control • Quota management 	<ul style="list-style-type: none"> • 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	<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	Email, SNMP traps		
Applications	<ul style="list-style-type: none"> • File explorer • Proxy server 	<ul style="list-style-type: none"> • Syslog server • VPN server 	<ul style="list-style-type: none"> • LDAP serve • 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 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		
	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	
SSD Cache(optional)	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: 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	<p>Warranty extension: Can extended standard service up to 5 years The following Service can be upgraded to 5 years</p> <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 <p>Note: Options may vary by region. For more details, please contact our sales representatives.</p>
	Infotrend Technical Support	FAQ, Download Center, Licensing Service, Service Request

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

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

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

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

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

