



EonStor DS 1000 series

Next generation entry-level storage with onboard iSCSI and concurrent FC/SAS enhances performance and scalability at affordable prices

Powerful performance made affordable

- Up to 500K+ IOPS ensures ample compute bandwidth for diverse applications and tasks, as well as large networks/user groups
- Throughput reaches 5,500MB/s read and 1,900MB/s write - accelerating major storage jobs and easily handling even intense workloads to enhance efficiency

Hybrid host interconnect by default

- All systems feature four 1Gb/s iSCSI ports to ensure more than sufficient connectivity to clients, servers, and other storage arrays
- Choose from 8Gb/s or 16Gb/s Fibre Channel, 10Gb/s iSCSI, or 6Gb/s SAS to go alongside the default 1Gb/s iSCSI ports

Multiple cache protection solutions

- Maintenance free super capacitors and a flash module provide a safe and reliable power source for cached memory if main power supply is disrupted
- Hot-swappable BBU (backup battery unit) with flash module stores data should the system suddenly shutdown or experience a power outage
- Choose BBU or super capacitors based on your needs and budget

EonStor DS 1000 series storage systems deliver among the best cost to performance ratios for SMB users of all currently available entry-level RAID solutions. Every model includes four 1Gb/s iSCSI ports per controller to expand networking and connectivity – an architecture created with surveillance applications in mind, which need fast interconnect to multiple clients. Up to 316 drives in LFF and 360 in SFF may be attached via JBOD enclosures to each system. With 6TB drive support, that means up to 1.9PB in capacity made available.

Outstanding performance

EonStor DS 1000 systems feature a powerful and optimized hardware configuration capable of up to 5,500MB/s sequential read and 1,900MB/s sequential write speeds, with as much as 500K+ IOPS available to users.

High scalability

EonStor DS 1000 systems support as many as 360 drives through compatible expansion enclosures. Scalability is a much more cost-effective solution than buying additional storage systems, resulting in additional savings.

Performance	ESDS 1016R	ESDS 1016RT
IOPS	380K	500K+
Read (MB/s)	5500	
Write (MB/s)	1900	

EonStor DS 1000 series

Affordable from the start and growing with you

- Compatible with a wide range of Infortrend JBOD expansion enclosures, including high density 4U 60-bay units
- Up to 316 drives in LFF and 360 in SFF per system, with support for 6TB drives – a total of up to 1.9PB in capacity brings you lots of space for future storage growth

Enterprise-class data services

- Include licenses for snapshot, volume copy/mirror, and thin provisioning
- Support features such as automated storage tiering to leverage SSD speed and enhanced remote replication disaster recovery (with optional licenses)
- Self-encrypting drives (SEDs) provide cost-effective protection for archived data alongside secure and simple media deletion

Easy to use by everyone in your team

- Exclusive SANWatch 3.0 browser-based GUI features an intuitive and simple design that team members can quickly pick up and make the most of without extensive training
- User interface integrates all system functions to promote full utilization

Environmentally-minded green design

- Energy efficient components include SoC processor and 80 PLUS power supplies
- Intelligent drive and fan spin down minimize redundant energy consumption



Hybrid host interface with onboard iSCSI

EonStor DS 1000 models incorporate four 1Gb/s iSCSI ports on each controller by default, which can be added to by choosing 8Gb/s or 16Gb/s Fibre Channel, 6Gb/s SAS, or 10Gb/s iSCSI to go alongside them. As deployments strive for maximum efficiency and resource consolidation, a hybrid host interface design is of great value, as it supports better performance as well as wider connectivity.

Super capacitor or BBU with flash for data protection

Maintenance-free super capacitors power flash modules in the event of prolonged electric grid outages, including major disruptions that exceed the capabilities of basic backup solutions. Super capacitors do not require replacement and cover the life of the system, ensuring emergency cache power to prevent mission-critical data loss. Alternatively, customers can choose the flexibility of a hot-swappable backup battery unit (BBU) with flash, which also safeguards against downtime due to power outages.

Comprehensive data services

Affordable for smaller businesses, the EonStor DS 1000 series offers enterprise-grade data services such as snapshot and volume copy/mirror to make multiple backups simple and quick. Thin provisioning helps with intelligent storage utilization, while optional 4-level automated storage tiering is the solution you need to leverage high speed drives for frequently-used data. For security and backup, remote replication offers dependable disaster recovery by creating offsite datasets that stay operational even if your main location goes offline. Compatibility with SED (self-encrypting drives) delivers unbreakable defense against disk theft or misplacement and also expedites data deletion.

Modular hardware makes life easy

EonStor DS 1000 series share the build logic of other Infortrend products, with hot-swappable BBUs, and power supplies/fans. Components can be effortlessly installed, maintained, and upgraded without shutting down the system. They all snap into place with plug and play convenience, and do not require complex assembly.

Green design lowers costs and safeguards the environment

The EonStor DS 1000 series features 80 PLUS power supplies plus smart disk drive and cooling fan spin-down to deliver stable, reliable, and efficient service, while its powerful and lower-draw SoC (system on a chip) processor helps users get more done in less time. The net result is storage systems that deliver top-notch performance while helping lower utility bills and minimize the ecological footprint of SMBs.

Technical Specifications



	Model name	ESDS 1012R ESDS 1012G	ESDS 1016R ESDS 1016G	ESDS 1024RB ESDS 1024GB
	Form factor	2U 12bay LFF	3U 16bay LFF	2U 24bay SFF
	Storage controller	Single or Dual-redundant		
	Host connectivity (per controller)	2 x 16Gb FC ports 4 x 8Gb FC ports 2 x 10Gb iSCSI ports (SFP+ or RJ-45) 4 x 1Gb iSCSI ports 2 x 6Gb SAS ports		
	Onboard iSCSI ports (per controller)	4		
	Cache memory (per controller)	2GB, 4GB, 8GB, 16GB	2GB, 4GB, 8GB, 16GB	2GB, 4GB, 8GB
	Max. drives (per system)	12	16	24
Max. drives (via expansion enclosures)	312	316	360	
	Expansion enclosure (JBOD)	JB 2012-1 JB 2012 JB 2048 JB 2060	JB 2016-1 JB 2016 JB 2048 JB 2060	JB 2012-1 JB 2016-1 JB 2012 JB 2016 JB 2048 JB 2024B
	SAS expansion ports (per controller)	1 x 6Gb/ SAS port		
	Cache backup techniques ¹	• Super capacitor + Flash module • BBU (hot-swappable) + Flash module		
	Supported drives ²	• 2.5" SATA/SAS SSD - Up to 600GB/2TB • 2.5" 10K RPM SAS HDD - Up to 1.2TB • 3.5" 7200 RPM NL SAS HDD - Up to 6TB (ESDS 1012/1016 only) • 3.5" 7200 RPM SATA HDD - Up to 5TB (ESDS 1012/1016 only)		
	Power & Cooling	Power supply: Two redundant 460W Voltage and Frequency: 100-240 Vac, 50-60Hz		
	Green design	• 80 PLUS power supplies delivering more than 80% energy efficiency • Intelligent multi-level drive spin-down		
	RAID configurations	• RAID level 0, 1(0+1), 3, 5, 6, 10, 30, 50, 60 • Up to 32 logical drives and 64 par titions per logical volume • Up to 2048 LUNs		
Data Service				
	Local Replication	Snapshot	Snapshot images per source volume Snapshot images per system	Standard License: 64 / Advanced License: 256 Standard License: 128 / Advanced License: 4096
(Standard license is default included and advanced is an optional license)		Volume Copy/Mirror	Source volumes per system Replication pairs per source volume Replication pairs per system	Standard License: 16 / Advanced License: 32 Standard License: 4 / Advanced License: 8 Standard License: 64 / Advanced License: 256
Thin Provisioning (default included)	" 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			
	Remote Replication (optional licesne)	Replication per source volume: 16 Replication pairs per source volume: 4 Replication pairs per system: 64		
	Automated Storage Tiering (optional license)	Two(2) or four(4)storage tiers based on drive types SSD supports		
Availability and Reliability	Redundant, hot-swappable hardware modules Multi-pathing support (EonPath); Device mapper support Cache backup technology: protects cached data during power outage by flushing data into flash memory Port trunking / link aggregation (IEEE 802.3ad), fail-over, jumbo frame			
Management	SANWatch management suite; Embedded RAIDWatch; Terminal via RS-232C; Telnet/SSH			
Notification	Email, Fax, LAN broadcast, SNMP traps, SMS, Skype			
OS support	Microsoft Windows Server 2008/ 2008 R2/ 2012/ 2012 R2 , Microsoft Windows Hyper-V, Red Hat Enterprise, Linux, SUSE Linux Enterprise, Sun Solaris, Mac OS X, HP-UX, IBM AIX, VMware, Citrix XenServer			
Service and support ³	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		

1. Feature availability may vary by region. Check with your local sales representative for complete details.

2. For the latest compatibility details, refer to our official website for the latest EonStor DS Compatibility Matrix.

3. All EonStor DS systems ship with standard service. Extended service terms may vary by region. Check with your local sales representative for complete details.

High IOPS Solutions



Model name	ESDS 1012RT ESDS 1012GT	ESDS 1016RT ESDS 1016GT	ESDS 1024RTB ESDS 1024GTB
Form factor	2U 12bay LFF	3U 16bay LFF	2U 24bay SFF
Storage controller		Single or Dual-redundant	
Host connectivity (per controller)		2 x 16Gb FC ports 4 x 8Gb FC ports 2 x 10Gb iSCSI ports (SFP+ or RJ-45) 4 x 1Gb iSCSI ports 2 x 6Gb SAS ports	
Onboard iSCSI ports (per controller)		4	
Cache memory (per controller)	2GB, 4GB, 8GB, 16GB	2GB, 4GB, 8GB, 16GB	2GB, 4GB, 8GB
Max. drives (per system)	12	16	24
Max. drives (via expansion enclosures)	312	316	360
Expansion enclosure (JBOD)	JB 2012-1 JB 2012 JB 2048 JB 2060	JB 2016-1 JB 2016 JB 2048 JB 2060	JB 2012-1 JB 2016-1 JB 2012 JB 2016 JB 2048 JB 2060 JB 2024B
SAS expansion ports (per controller)		1 x 6Gb/ SAS port	
Cache backup techniques ¹	<ul style="list-style-type: none"> • Super capacitor + Flash module • BBU (hot-swappable) + Flash module 		
Supported drives ²	<ul style="list-style-type: none"> • 2.5" SATA/SAS SSD - Up to 600GB/2TB • 2.5" 10K RPM SAS HDD - Up to 1.2TB • 3.5" 7200 RPM NL SAS HDD - Up to 6TB • 3.5" 7200 RPM SATA HDD - Up to 5TB 		
Power & Cooling	Power supply: Two redundant 460W Voltage and Frequency: 100-240 Vac, 50-60Hz		
Green design	<ul style="list-style-type: none"> • 80 PLUS power supplies delivering more than 80% energy efficiency • Intelligent multi-level drive spin-down 		
RAID configurations	<ul style="list-style-type: none"> • RAID level 0, 1 (0+1), 3, 5, 6, 10, 30, 50, 60 • Up to 32 logical drives and 64 partitions per logical volume • Up to 2048 LUNs 		

Data Service

Local Replication (Standard license is default included and advanced is an optional license)	Snapshot	Snapshot images per source volume Snapshot images per system	Standard License: 64 / Advanced License: 256 Standard License: 128 / Advanced License: 4096
	Volume Copy/Mirror	Source volumes per system Replication pairs per source volume Replication pairs per system	Standard License: 16 / Advanced License: 32 Standard License: 4 / Advanced License: 8 Standard License: 64 / Advanced License: 256
Thin Provisioning (default included)	" 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		
Remote Replication (optional license)	Replication per source volume: 16 Replication pairs per source volume: 4 Replication pairs per system: 64		
Automated Storage Tiering (optional license)	Two(2) or four(4) storage tiers based on drive types SSD supports		

Availability and Reliability

Redundant, hot-swappable hardware modules
Multi-pathing support (EonPath); Device mapper support
Cache backup technology: protects cached data during power outage by flushing data into flash memory
Port trunking / link aggregation (IEEE 802.3ad), fail-over, jumbo frame

Management

SANWatch management suite; Embedded RAIDWatch; Terminal via RS-232C; Telnet/SSH;

Notification

Email, Fax, LAN broadcast, SNMP traps, SMS, Skype

OS support

Microsoft Windows Server 2008 / 2008 R2 / 2012 / 2012 R2 , Microsoft Windows Hyper-V, Red Hat Enterprise, Linux, SUSE Linux Enterprise, Sun Solaris, Mac OS X, HP-UX, IBM AIX, VMware, Citrix XenServer

Service and support³

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

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