



EonStor GS Family

Enterprise-Class Unified Storage

Integrating SAN, NAS and CLOUD



For more details

HIGHLIGHTS

UNIFIED STORAGE

- Consolidate SAN, NAS and object storage in a single system to enjoy powerful storage features and simplify deployment and management

EFFICIENCY

- Integrated object based storage reduces the cost of deploying applications from the cloud
- EonStor GS family makes efficient use of available bandwidth and greatly speeds up data extend when uploading data to the cloud with its data reduction technology
- With various built-in services including proxy, LDAP, syslog and VPN server to assist enterprises simplify their IT environment deployment.

EXCEPTIONAL COST PERFORMANCE

- High Block/file level Performance, it delivers up to 450K IOPS, 11,000MB/s block and 6,600MB/s CIFS bandwidth.
- Future-proof expansion solution offers ample data capacity of up to 444 drives.
- Comprehensive data services, including SSD Cache and automated storage tiering improve performance and speed up data access.
- Support for all-flash and hybrid configurations provides flexibility of choice to meet your needs.
- Select from a wide range of product series and multiple host options.

The volume of digital data currently being produced is growing at unprecedented rates, in big part due to our increasing demand for unstructured data types such as files, images and videos, which push the boundaries of storage capacity and performance. Because of this, many organizations are making cloud storage, with its cost-effective flexibility and infinite scalability, an integral part of their strategy. Now more than ever, choosing a local storage solution that can easily integrate with cloud services is a must.

EonStor GS family is a unified storage solution that incorporates remote cloud storage into local applications to offer the best of both worlds – unlimited cloud storage and high performance local storage – as well as automatic data lifecycle management, to allow SMBs and SMEs running local SAN/NAS applications to easily and cost-effectively integrate and expand their storage architecture into cloud services.

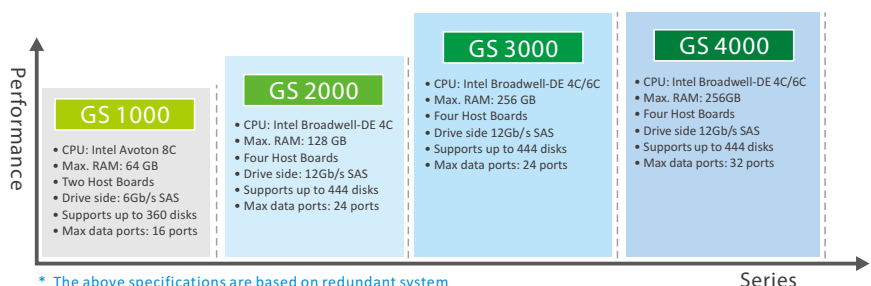
Powerful All-around High Performance & Efficiency

Based on much improved hardware and firmware, EonStor GS family can handle file level protocols including CIFS/SMB, NFS, AFP and FTP; block level protocols such as Fiber Channel, iSCSI and SAS; and object level protocols, which allow users to access files directly via browsers through the file's unique URL and reduces the cost of deploying applications from the cloud.

By integrating all of these protocols and harnessing the power of Intel's multicore CPU, EonStor GS family delivers not only outstanding flexibility but also incredible performance in two configurations: all-flash and hybrid. As an all-flash system, it delivers up to 450K IOPS, 11,000MB/s block and 6,600MB/s CIFS bandwidth. Moreover, by offering hybrid features such as SSD Cache, protocol translation between local NAS/SAN and cloud storage services, and automated storage tiering, EonStor GS family guarantees exceptional performance at every level of operation.

This great performance and efficiency can also be found in our cloud storage integration thanks to deduplication and compression features, which ensure the efficient use of bandwidth to effectively extend data to the cloud and lower overall costs.

GS Portfolio



CLOUD READY

- The EonStor GS can integrate with cloud storage, and data can be optimally allocated between EonStor GS and Cloud through our smart algorithms, so users can enjoy the best performance and the safest storage.
- EonStor GS offers comprehensive cloud integration functions for users to choose from: Cloud Tiering, Cloud Cache and Cloud Backup.
- Support for private and public cloud services enables users to choose the option that best suits their budget or data security requirements

AVAILABILITY & RELIABILITY

- SMB 3.0 transparent failover and multipathing support guarantee non-disruptive operations.
- Dual controllers and non-single-point-of-failure hardware design ensure system continuity in case of faults.
- Cache protection with Super capacitor and Flash to ensure data safety
- IDR support ensures all hard drives are healthy to prevent from rebuild

DATA PROTECTION & SECURITY

- Whether inactive or mid transfer, data is always encrypted to ensure full protection from malicious attacks

SIMPLICITY

- EonOne management interface provides a single control center for system management and resources monitoring

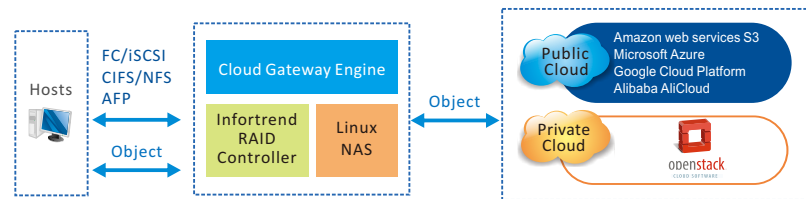
SYMMETRIC ACTIVE-ACTIVE CONTROLLERS

- Simultaneous access via both controllers
- Equally distributed I/O
- Uninterrupted I/O during path failure

Infinite Storage Capacity on Cloud

One of the key benefits of cloud storage solutions is their unlimited scalability and flexible “scale on demand” model, which allows you to expand your storage capacity as needed, without upfront investment, to fit your capacity requirements as they evolve.

By integrating Intelligent Cloud Gateway Engine and supporting a wide range of both private cloud and public cloud services, including Amazon, Azure, and Google, the EonStor GS offers various cloud functions such as Cloud Tiering, Cloud Cache and Cloud Backup to make the most of cloud's advantages. These functions perfectly combine local and cloud storage, automatically and optimally allocating data, while saving setup and maintenance costs in the process.



Comprehensive Data Protection and Security

As security is of utmost importance when it comes to data storage in the cloud, the EonStor GS family provides AES 256bit Encryption for data-in-flight and data-at-rest, as well as self-encrypting drives (SED) compatibility, ensuring data is always protected from malicious threats. Furthermore, with integrated SSL, links between server and client are also encrypted.

Security threats are by no means the only concern when it comes to safeguarding data. Unexpected disk failures, natural disasters and power outages all up the risk of data loss. EonStor GS family ensures this risk is minimal with its integrated backup functions such as Intelligent Drive Recovery (IDR), snapshot, local replication, remote replication and file-level rsync.

In case a failure is experienced, the system's integrated SMB 3.0 transparent failover and multipathing support guarantee non-disruptive operations. Also, designed with redundant dual controllers and non-single-point-of-failure hardware components, it ensures business continuity at all times.

Symmetric active-active controllers

EonStor GS supports symmetric active-active controller configuration to minimize administrative effort and boost operation efficiency. Hosts can access the same LUNs simultaneously via both controllers. I/O are equally distributed across both controllers and all paths, effectively minimizing costly path management time. In the event of a path failure, I/O can automatically continue through the remaining paths with little or no failover.

| Specifications (per system) | GS 1000 GS 1000T ^{*1} | GS 2000 GS 2000T ^{*1} | GS 3000 GS 3000T ^{*1} | GS 4000 GS 4000T ^{*1} |
|--|---|---|--|-----------------------------------|
| Form factor | 2U 12-bay 2U 24-bay 3U 16-bay 4U 24-bay | ✓ ✓ ✓ ✓ | ✓ ✓ ✓ ✓ | ✓ ✓ |
| Storage controller | Dual-redundant/ Single upgradable to redundant | | | |
| Max drives | 360 | 444 | 444 | |
| Max SSD cache pool | 1.6TB | 3.2TB | 3.2TB | |
| Cache backup techniques | Super capacitor + Flash module | | | |
| Power supply unit ^{*4} | Power supply: Two redundant 460W; Voltage and Frequency: 100-240 Vac, 50-60Hz | | Power supply: Two redundant 530W; Voltage and Frequency: 100-240 Vac, 50-60Hz | |
| CPU | 2x Intel Avoton (Atom) 4 Core/ 8 Core | 2x Intel Broadwell-DE (Pentium) 2 Core/ 4 Core | 2x Intel Broadwell-DE (Xeon) 4 Core/ 6 Core | |
| Cache memory ^{*2,5} | 8GB, 16GB, 32GB, 64GB | 8GB, 16GB, 32GB, 64GB, 128GB | 8GB, 16GB, 32GB, 64GB, 128GB, 256GB | |
| Max. number of host board | 2 | 4 | 4 | |
| SAS expansion ports | 2 x 6Gb/s SAS wide ports | 2 x 12Gb/s SAS wide ports | 4 x 12Gb/s SAS wide ports | |
| Onboard converged ports ^{*6} | 0 | 0 | 0 | 16 |
| Onboard iSCSI ports (10Gb RJ-45) | 0 | 0 | 4 | 0 |
| Onboard iSCSI ports (1Gb RJ-45) | 8 | 8 | 4 | 0 |
| Host board ports | 2 x 16Gb/s FC ports 4 x 8Gb/s FC ports 2 x 10GbE/iSCSI ports (RJ-45) 2/4 x 10GbE/iSCSI ports (SFP+) 4 x 1GbE/iSCSI ports 2 x 6Gb/s SAS ports 2 x 12Gb/s SAS ports | | 2/4 x 16Gb/s FC ports 4 x 8Gb/s FC ports 2 x 56Gb/s InfiniBand ports 4 x 10GbE FCoE ports 2 x 40GbE/iSCSI ports (QSFP) 2 x 10GbE/iSCSI ports (RJ-45) 2/4 x 10GbE/iSCSI ports (SFP+) 4 x 1GbE/iSCSI ports 2 x 6Gb/s SAS ports 2 x 12Gb/s SAS ports | |
| Host board + onboard ports (max.) | 16 | 24 | 24 | 32 |
| Max. 8Gb/s FC ports ^{*3} | 8 | 16 | 16 | 32 |
| Max. 16Gb/s FC ports ^{*3} | 4 | 16 | 16 | 24 |
| Max. 56Gb/s InfiniBand ports | 0 | 8 | 8 | 8 |
| Max. 1 GbE/iSCSI ports | 16 | 24 | 20 | 16 |
| Max. 10 GbE/iSCSI (SFP+) ports ^{*3} | 8 | 16 | 16 | 32 |
| Max. 10 GbE/iSCSI (RJ45) ports | 4 | 8 | 12 | 8 |
| Max. 40GbE/iSCSI (QSFP) ports | 0 | 8 | 8 | 8 |
| Max. 10 GbE FCoE ports ^{*3} | 0 | 16 | 16 | 32 |
| Max. 12Gb/s SAS ports | 4 | 8 | 8 | 8 |
| Max. 6Gb/s SAS ports | 4 | 0 | 0 | 0 |
| Max. number of logical drives | 32 | | | |
| Max. logical drive capacity | 512TB | | | |
| 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 | 2PB | | | |
| Max. number of pools | 32 | | | |
| Max. number of volumes (per pool/ per system) | 1024 | | | |
| Max. number of LUNs mappable | 4000 | | | |
| Max. volume size | 2PB | | | |
| Number of tags reserved for each Host-LUN connection | Up to 256 | | | |
| Max iSCSI Initiators | 832 | | | |
| File Level | 832 | | | |
| 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 Block Level Protocol Object Level Protocol | CIFS/ SMB: Version 2.0/3.0, NFS: Version 2/3/4, AFP, FTP, WebDAV FC, FCoE, iSCSI, SAS Openstack Swift | | |
| Cloud gateway | Support the integration with following cloud providers: Amazon S3, Microsoft Azure, Google Cloud Platform, Alibaba AliCloud | | | |
| 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 | | | |

1. Model name "T" means high IOPS solution

2. GS 4000/3000/2000 Default: DDR4 4GBx2 with ECC per controller, GS 1000 Default: DDR3 4GBx2 with ECC per controller

3. GS 4000/3000/2000 Converged host board supports 4-port 10GbE iSCSI, 4-Port 8 Gb/s FC, 2-port 16Gb/s FC and 4-port 10GbE FCoE. GS 1000 Converged host board supports 4-port 10GbE iSCSI, 4-Port 8Gb/s FC and 2-port 16Gb/s FC.

4. Power is also supplied in redundant mode, allowing full operation with half the resources.

5. 8GB is for single controller models; 256GB is for redundant controller models.

6. GS 4000 onboard converged port supports 4-port 10GbE iSCSI, 4-Port 8 Gb/s FC, 2-port 16Gb/s FC and 4-port 10GbE FCoE

GS 4000/3000/2000/4000T/3000T/2000T/ Series

| Form Factor | 2U 12-bay | | | | 3U 16-bay | | | 4U 24-bay | | 2U 24-bay | | |
|-------------------------------|-----------------------------------|-----------|----------|-----------|---|--|-----------|-----------------------------------|---|--|--|--|
| Model ¹ | GS 3012R | GS 2012R | GS 4016R | GS 4016RT | GS 2016R | GS 3024R | GS 2024R | GS 4024RB | GS 2024RB | GS 3024RB | | |
| | GS 3012S | GS 2012S | GS 4016S | GS 4016ST | GS 2016S | GS 3024S | GS 2024RT | GS 4024SB | GS 2024RB | GS 3024SB | | |
| | GS 3012RT | GS 2012RT | GS 3016R | GS 3016RT | GS 2016RT | GS 3024RT | GS 2024S | GS 4024RBT | GS 2024SB | GS 3024RBT | | |
| | GS 3012ST | GS 2012ST | GS 3016S | GS 3016ST | GS 2016ST | GS 3024ST | GS 2024ST | GS 4024SBT | GS 2024SBT | GS 3024SBT | | |
| Supported drives ² | | | | | <ul style="list-style-type: none"> • 2.5" 10K/15K RPM SAS HDD • 2.5" SATA/SAS SSD | <ul style="list-style-type: none"> • 3.5" 7200 RPM NL SAS HDD • 3.5" 7200 RPM SATA HDD | | | <ul style="list-style-type: none"> • 2.5" 10K/15K RPM SAS HDD • 2.5" SATA/SAS SSD | | | |
| Max. drives number | 432 | | | | 436 | | | 444 | | 444 | | |
| Rack Support | 2U, 19-inch rackmount | | | | 3U, 19-inch rackmount | | | 4U, 19-inch rackmount | | 2U, 19-inch rackmount | | |
| Dimensions ³ | 447mm (W) x 88mm (H) x 500mm (D) | | | | 447mm (W) x 130mm (H) x 500mm (D) | | | 447mm (W) x 175mm (H) x 500mm (D) | | 447mm (W) x 88mm (H) x 500mm (D) | | |
| Package Dimensions | 780mm (W) x 379mm (H) x 588mm (D) | | | | 780mm (W) x 423mm (H) x 588mm (D) | | | 780mm (W) x 465mm (H) x 588mm (D) | | 780mm (W) x 338mm (H) x 588mm (D) | | |
| Expansion enclosure (JBOD) | JB 3012A JB 3060 JB 3060L | | | | JB 3016A JB 3060 JB 3060L | | | JB 3016A JB 3060 JB 3060L | | JB 3024BA JB 3012A JB 3060 JB 3016A JB 3060L | | |

GS 1000/1000T Series

| Form Factor | 2U 12-bay | | | | 3U 16-bay | | | 4U 24-bay | | 2U 24-bay | | |
|-------------------------------|-----------------------------------|-----------|----------|-----------|---|----------|-----------|---|------------|---|--|--|
| Model ¹ | GS 1012R | GS 1012RT | GS 1016R | GS 1016RT | GS 1024R | GS 1024R | GS 1024RT | GS 1024RB | GS 1024RBT | | | |
| | GS 1012S | GS 1012ST | GS 1016S | GS 1016ST | GS 1024S | GS 1024S | GS 1024ST | GS 1024SB | GS 1024SBT | | | |
| Supported drives ² | | | | | <ul style="list-style-type: none"> • 2.5" 10K/15K RPM SAS HDD • 2.5" SATA/SAS SSD • 3.5" 7200 RPM NL SAS HDD • 3.5" 7200 RPM SATA HDD | | | <ul style="list-style-type: none"> • 2.5" 10K/15K RPM SAS HDD • 2.5" SATA/SAS SSD | | | | |
| Max. drives number | 312 | | | | 316 | | | 324 | | 360 | | |
| Rack Support | 2U, 19-inch rackmount | | | | 3U, 19-inch rackmount | | | 4U, 19-inch rackmount | | 2U, 19-inch rackmount | | |
| Dimensions ³ | 447mm (W) x 88mm (H) x 500mm (D) | | | | 447mm (W) x 130mm (H) x 500mm (D) | | | 447mm (W) x 175mm (H) x 500mm (D) | | 447mm (W) x 88mm (H) x 500mm (D) | | |
| Package Dimensions | 780mm (W) x 379mm (H) x 588mm (D) | | | | 780mm (W) x 423mm (H) x 588mm (D) | | | 780mm (W) x 465mm (H) x 588mm (D) | | 780mm (W) x 338mm (H) x 588mm (D) | | |
| Expansion enclosure (JBOD) | JB 2012-1 JB 2060 JB 2060L | | | | JB 2016-1 JB 2060 JB 2060L | | | JB 2016-1 JB 2060 JB 2060L | | JB 2024B JB 2012-1 JB 2060 JB 2016-1 JB 2060L | | |

1. S: Single controller (upgradeable to dual controller system) R: Redundant controller T: High IOPS solution
 2. For the latest compatibility details, refer to our official website for the latest EonStor GS Compatibility Matrix.
 3. Without chassis ears/protrusions

Data Service & Support

Data Service

| | | | |
|--|---|--|--|
| Local Replication ² <small>(Standard license is included by default and advanced is an optional license)</small> | 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 (Block level) ¹ | Replication per source volume: 16 | Replication pairs per source volume: 4 | Replication pairs per system: 64 |
| Remote Replication (File Level) | Rsync with 128-bit SSH encryption between Infortrend EonStor GS, GSe and EonNAS | | |
| Automated Storage Tiering ¹ | Two(2) or four(4) storage tiers based on drive types SSD supports | | |
| SSD Cache ¹ | <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: DRAM:8GB Max SSD Cache Pool Size: 300GB DRAM:16GB Max SSD Cache Pool Size: 400GB DRAM:32GB Max SSD Cache Pool Size: 800GB DRAM:64GB Max SSD Cache Pool Size: 1,600GB DRAM:128GB Max SSD Cache Pool Size: 3,200GB DRAM:256GB Max SSD Cache Pool Size: 3,200GB | | |
| | Cloud-integrated Solution ¹ | <ul style="list-style-type: none"> • Cloud Cache • Cloud Tiering • Cloud Backup | |
| Access right management | <ul style="list-style-type: none"> • User account management • Quota management | <ul style="list-style-type: none"> • Group management • Integration with Window® AD and LDAP | <ul style="list-style-type: none"> • Folder management - folder access control |
| Availability and Reliability | <ul style="list-style-type: none"> • Redundant, hot-swappable hardware modules • Trunk group support | <ul style="list-style-type: none"> • CacheSafe technology • Device mapper support | <ul style="list-style-type: none"> • Multi-pathing support • UPS • WORM |
| 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, Fax, LAN broadcast, SNMP traps, SMS | | |
| Applications | • File explorer • Proxy server • Syslog server • VPN server • SyncCloud • LDAP server | | |
| 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, 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 | |
| | Infortrend Service Center | Request Support, Knowledge Base, Download Center, Licensing Service, and News | |

¹ optional ² Available with Standard license and optional advanced license

Asia Pacific (Taipei, Taiwan)
Infortrend Technology, Inc.

China (Beijing, China)
Infortrend Technology, Ltd.

Japan (Tokyo, Japan)
Infortrend Japan, Inc.

Americas (Sunnyvale, CA, USA)
Infortrend Corporation

EMEA (Basingstoke, UK)
Infortrend Europe Ltd.

Tel: +86-2-2226-0126
E-mail: sales.ap@infortrend.com

Tel: +86-10-6310-6168
E-mail: sales.cn@infortrend.com

Tel: +81-3-5730-6551
E-mail: sales.jp@infortrend.com

Tel: +1-408-988-5088
E-mail: sales.us@infortrend.com

Tel: +44-1256-305-220
E-mail: sales.eu@infortrend.com

