



EonStor CS Family

*The Scale-out Shared Storage
with High Performance and Scalability*



In today's diverse business environments with high demand for data processing, companies accumulated tons of files and data. International Data Corporation, or IDC, predicts that global data volume will increase to 175 ZB by 2025 from 33 ZB in 2018. Because of increasing data requirement, data management such as storage, protection, and accessibility have become major issues for enterprises.

EonStor CS is a Scale-out Shared Storage system with high performance and capacity expansion capabilities. With the support of multiple nodes, you can easily integrate data from multiple nodes into a single namespace system architecture via CIFS/NFS protocols, effectively reducing the data management hassles and cost. Furthermore, EonStor CS supports flexible storage deployment to meet different application requirements, whether it's the throughput-intensive high performance computing (HPC) and multimedia applications or capacity-intensive workloads, such as surveillance, backup and archive.

High Performance

- Performance scales linearly as you add new nodes.
- Single node performance up to 3.4/2 GBps (Read/Write).
- Single cluster read performance up to 100 GB/s.
- Auto-balancing function that evenly distributes data across all nodes and improve data access performance.

High Security

- Supports Self-Encrypting Drive, SED.
- Supports "Write once read many" function.

High Scalability

- Supports online capacity expansion.
- Scale-out expansion up to 144 nodes.
- Scale-up expansion up to 120 hard disks per node.
- Single cluster capacity up to 100PB.

Easy to Deploy and Manage

- Supports multiple node configurations for diverse application requirements.
- Provides multiple protection level for the storage pool, maximizing storage space utilization.
- Provides deployment wizard to simplify deployment process.

Data Protection

- Unique Infortrend RAID technology that protects data from mechanical errors, such as hard disk damages.
- Supports Replica and Erasure Code data protection mechanism.
- Self-healing function to restore data from faulty nodes.
- Supports data recovery to remote site.

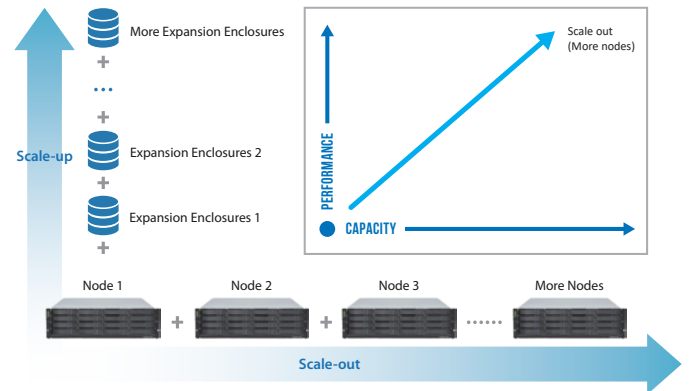
Excellent Performance and Capacity

As a Scale-out NAS storage system, you can simply add more CS units, also referred as nodes. This kind of easy setup gives you a high performance/capacity cluster system with up to 100 GBps Read speeds and up to 100PB of storage. EonStor CS also supports auto-balancing function, which allows the system to evenly distribute data across each node. This function improves data access efficiency and avoids performance limit on each node.

High Scalability

EonStor CS features extraordinary scalability in terms of performance and capacity. Through scale-out expansion, the system performance can linearly increase as you add more nodes. The single node performance reaches 3.4/2 GBps (Read/Write), while the entire cluster performance can reach 100 GBps (Read/Write).

As for capacity expansion, EonStor CS supports scale-out and scale-up solutions. The scale-out architecture allows you to expand both performance and capacity, enhancing system availability. At the same time, you can install expansion enclosures to scale up for big data backup and storage requirements.



Data Protection

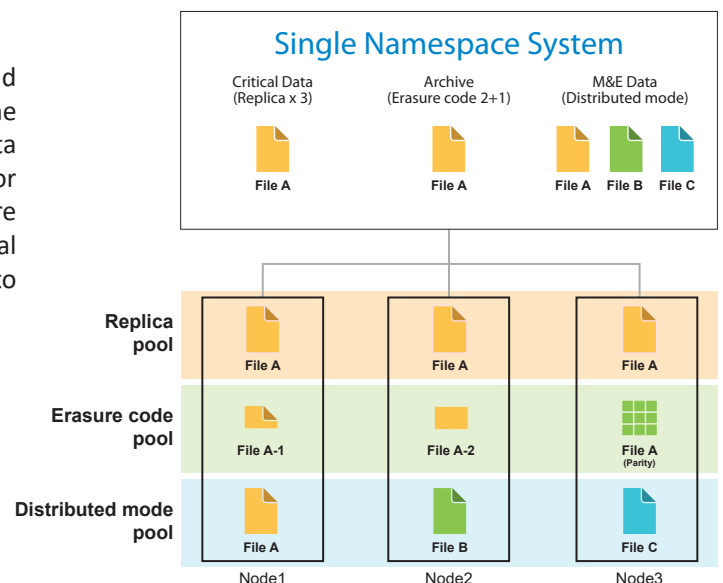
EonStor CS offers multiple data protection designs to guarantee that enterprise customers' data are tightly protected. For hard disks, EonStor CS incorporated Infortrend's unique RAID technology which helps the system runs normally while ensuring your data is fully protected even when the hard disk gets damaged. In terms of node protection, EonStor CS supports Replica and Erasure Code protection mechanism to generate the redundant data across all the nodes. On cluster level, you can use the Rsync feature for remote backup of the cluster file to remote cluster or remote NAS.

High Availability

With the data protection design like RAID, Replica/Erasure code. EonStor CS feature high availability for disk and node levels. The network interface trunk group provide not only the bandwidth aggregation but also preventing single path failure. EonStor CS also has the redundant hardware component design including PSU, FAN module, helps out the hardware availability, when one component is down, the other component can still provide the power and heat dissipation, these components are also modular for easy component maintenance. Last but not the least, the firmware for EonStor CS can also be upgraded without cluster downtime to make sure the cluster service continuity.

Easy Management

EonStor CS features complete integration of software and hardware that offers easier deployment and management of the system. Based on different file properties, you can allocate data into different storage pools and set different protection level for each pool. For example, a massive data application uses Erasure Code to protect your data while saving storage space. For critical data that are at risk of loss, you can apply Replica Mechanism to protect these data.



Expand As Your Data Volume Grows

EonStor CS scale-out NAS empowers enterprises to save the CAPEX by only purchasing the needed equipment in the initial stage, and then adding nodes to scale system capacity and performance. For high data volume application, you can then select cost-effective scale-up solution and add expansion enclosures under the same node. The flexible configuration allows enterprises to have greater flexibility in the decision-making process and enjoy maximized capital utilization.

PHYSICAL SPECIFICATIONS

Product Series		CS 2000	CS 3000	CS 4000
Product positioning		High density for Backup & archive	High CP value for Large scale file storage and surveillance	High performance for HPC and M&E
Form Factor (per node)	3U 16-bay	-	CS 3016G	CS 4016G
	4U 24-bay	-	CS 3024G	CS 4024G
	4U 60-bay	CS 2060G/2060D	CS 3060G/3060D	CS 4060G/4060D
	2U 25-bay	-	-	CS 4025GB
Node		Single node, except for 4U 60-bay which has both single and dual node		
Number of Nodes		1 to 144		
Controller		G: Single not upgradable to Dual D: Dual independent controllers		
Max. Drives (per node)		120		
		Note: The maximum drive number varies with models.		
CPU (per node)		Intel® Xeon® D 4 Core	Intel® Xeon® D 8 Core	Intel® Xeon® D 12 Core
Cache Memory (per node)		Default DDR4 64GB; Expandable to 128GB or 256GB		
Management Port (per node)		1 x 1GbE port (RJ-45)		
Onboard SAS Expansion Ports (per node)		2 x 12Gb/s SAS wide ports		
Network types	Front-end	10GbEx2(SFP+) or 10GbEx4 (SFP+) or 25GbEx2(SFP28) or 40GbEx2(QSFP+)		
	Internal	10GbEx2(SFP+) or 25GbEx2(SFP28) or 40GbEx2(QSFP+)		
Network Types Combination		Combination 1: Front-end (Onboard 10GbE x 2) + Internal (Onboard 10GbE x 2) Combination 2: Front-end (Onboard 10GbE x 4) + Internal (Host Board 25GbE x 2) Combination 3: Front-end (Onboard 10GbE x 4) + Internal (Host Board 40GbE x 2) Combination 4: Front-end (Host Board 25GbE x 2) + Internal (Host Board 25GbE x 2) Combination 5: Front-end (Host Board 40GbE x 2) + Internal (Host Board 40GbE x 2) Combination 6: Front-end (Onboard 10GbE x 4 + Host Board 25GbE x 2) + Internal (Host Board 25GbE x 2) Combination 7: Front-end (Onboard 10GbE x 4 + Host Board 40GbE x 2) + Internal (Host Board 40GbE x 2)		
Supported Drives		2U 25-bay supports : 2.5" SAS or SATA SSD The other form factors support : 3.5" 12Gb/s SAS 7,200 RPM HDD, 3.5" 6Gb/s SATA 7,200 RPM HDD		
Dimensions (without chassis ears/ protrusions) (W x H x D)		2U 25-bay: 449 x 88 x 500 mm 3U 16-bay: 449 x 130 x 500 mm	4U 24-bay: 449 x 174.4 x 500 mm 4U 60-bay: 447.6 x 176 x 840.9 mm	
Package Dimensions (W x H x D)		2U 25-bay: 780 x 340 x 588 mm 3U 16-bay: 780 x 423 x 588 mm	4U 24-bay: 780 x 465 x 588 mm 4U 60-bay: 620 x 460 x 1140 mm	
Power Supply Unit (with fan module)	Power Supplies (Redundant / hot-swappable)	4U 60-bay: 1600W (80 PLUS Platinum); Other form factors: 530W (80 PLUS Bronze)		
	AC Voltage (with PFC(auto-switching))	4U 60-bay: 100Vac-127Vac @ 13.8A, 200-240Vac@ 9.6A; Other form factors: 100Vac @ 10A, 240Vac@ 5A		
	Frequency	4U 60-bay: 47-63 Hz; Other form factors: 50-60Hz		
		Note: Power is also supplied in redundant mode, allowing full operation with half the resources.		
Regulatory		<ul style="list-style-type: none"> Electromagnetic Compatibility: CE, BSMI, FCC Safety: UL, BSMI, CB 		

SOFTWARE SPECIFICATIONS

Max. file size	800TB
Max. number of user accounts	20000
Max. number of user groups	512
Max. number of folder sharing	1024 (NFS/CIFS/FTP)
Max. number of rsync jobs	1024
Max. number of rsync concurrent processes	64
Max. number of concurrent connections (NFS/CIFS/FTP)	<ul style="list-style-type: none"> • 64 GB memory: 1024 • 128 GB memory: 2048 • 256 GB memory: 4096
Management	<ul style="list-style-type: none"> • User account management • Quota management • ACL control • Microsoft Active Directory (AD), Linux LDAP and NIS authentication • Web-based EonOne management software • Storage Resource Management to analyze history records of resource usage
Availability and Reliability	<ul style="list-style-type: none"> • Self-healing design • WORM • SMB Multichannel
Network Configuration	DNS load balancing
Data Protection	Disk protection: RAID 5, RAID 6 Node protection: Erasure code (2+1 or 4+1 or 4+2 or 8+1 or 8+2) or Replica (x2 or x3) Cluster protection: Rsync
Notification	Email, SNMP traps
Protocol Support	CIFS/SMB (Version 2.0/3.0), NFS (Version 3), FTP

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	Warranty extension: Can extended standard service up to 5 years The following Service can be upgraded to 5 years <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 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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