Infortrend®
EonNAS

EonNAS 3000 Gen2 series
Powerful NAS / unified storage system

Highlights

- Active/active redundant - controller design for failover and high availability

- Consolidate file (CIFS/SMB, NFS, AFP, FTP) and block (iSCSI, FC) services

- Advanced ZFS-powered system ensures data integrity

- Flexible capacity scaling, providing up to 1536TB space

- Smart protection with unlimited snapshot, Enterprise Vault snapshot , remote replication, and pool mirror

- Storage virtualization-ready

- Accelerate read/write operations by integrating SSDs

- Supports Global Namespace for streamlining storage management

- Effortless management with exclusive tools: EonOne central management utility and CLI editing

Uninterruptible availability is a crucial need for enterprises worldwide. Infortrend high availability storage solutions help enterprises and SMBs achieve this goal by ensuring non-stop system availability, decreasing the risk of unexpected interruptions and downtime.

With high availability solutions, total data protection, and maximized resource utilization, EonNAS 3000 Gen2 series file and block-based unified storage systems deliver performance to meet the stringent demands of modern enterprise data center environments at truly affordable costs.

High availability and reliability

To ensure constant uptime and service stability, the EonNAS 3000 Gen2 series has been thoroughly designed to operate with high data availability, including active/active redundant controllers and power supplies. This redundant controller design keeps data alive at all times, ensuring that the second controller can seamlessly take over operations if the primary controller goes down. Powered by revolutionary ZFS, the EonNAS 3000 Gen2 series ensures data integrity with hierarchical checksum and corrupt data self-healing, while snapshot enable users to quickly restore data in seconds.

Unified storage

The EonNAS 3000 Gen2 series offers a high performance solution for consolidating data centers. Combining file and application server roles in a single solution, systems can simultaneously process data blocks through SAN and support file sharing between different clients. Also, the EonNAS 3000 Gen2 series supports Global Namespace, allowing users to greatly reduce the complexity of data access and operations.

vmware® READY   **CITRIX® ready™**   **CERTIFIED FOR Windows Server®2008**   **CERTIFIED FOR Windows Server®2008 R2**   **Windows Server 2012 Certified**   **Windows Server 2012 R2 Certified**

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Effortless management: EonOne and CLI

Bringing diverse EonNAS systems together has been made super easy with EonOne central management. It unites all EonNAS models under a single interface , through EonOne, you can monitor and administer several EonNAS systems from one point of entry. EonOne puts all settings into one page to streamline workflow, which makes it much faster and simpler to configure new systems. The convenient EonOne notification center provides clear and centralized notices for various events to ensure users are fully informed and that action can be taken in order to maintain optimized operation. Everything is made simpler with consolidated EonOne.

Perfect for system administrators and experienced users, CLI enables command scripting and scheduling of custom tasks that address specific needs. CLI also requires very little resources, providing flexibility without slowdown.

Smart protection and all license-free

EonNAS 3000 Gen2 systems provide several ways to protect data, including unlimited snapshot, enterprise vault snapshot, remote replication, and pool mirror. Based on specific user requirements the most suitable data services can be selected, which is made easier and more accessible as all backup technologies and tools are provided free with no licensing needed.

Compact form factor: 500mm depth

EonNAS 3000 Gen2 systems feature a chassis that is only 500mm deep. The reduced depth contributes to higher storage density, helping organizations make better use of valuable space. Importantly, the compact form factor is easier to fit in a wider range of cabinets and placements – further boosting their versatility.
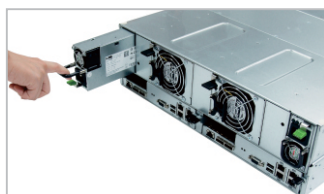
System scalability

"Scale as needed" flexibility allows users to accommodate tomorrow's applications while satisfying current needs. The EonNAS 3000 Gen2 series can connect with expansion enclosures to provide a maximum capacity of up to 1536TB across 256 drives. To maximize performance, SSDs can be integrated with EonNAS 3000 Gen2 systems to automatically enhance caching operations and accelerate I/O processing.

Flexible choices for the right system

Standard 1GbE host boards can be effortlessly upgraded using a modular design. Go with multiple 1GbE, 10GbE, and FC host options to increase storage connectivity without having to replace the entire system or send it out for maintenance. Access more performance minus the unwanted costs and downtime.

Simplified administration effort

The EonNAS 3000 Gen2 series features a modular and cable-less design to simplify maintenance and ensure uninterrupted operation. Hot-swappable fans and power supplies further help minimize downtime.

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Hardware specifications

	EonNAS 3016RT1	**EonNAS 3016ST1**
ARCHITECTURE		
Processor	2 x Intel® Xeon™ E3 quad core	1 x Intel® Xeon™ E3 quad core
Memory[1]	16GB DDR3 ECC RAM (expandable, up to 64GB)	8GB DDR3 ECC RAM (expandable, up to 32GB)
Controller	Dual redundant controllers (active/active)	Single controller
Host connectivity	8 x 1GbE ports	4 x 1GbE ports
Optional host board	4 x 1GbE ports, 2 x 10GbE (SFP+ or RJ45) ports, 2 x 16Gb FC	
SAS expansion ports	4 x 6Gb/s SAS wide ports	2 x 6Gb/s SAS wide ports
Drive bays	16	
Supported drives [1]	2.5" 6Gb/s SAS SSD - 200GB, 400GB or 800GB 2.5" 10,000 RPM 6Gb/s SAS drives - 300GB, 450GB, 600GB, 900GB or 1.2TB 2.5" 15,000 RPM 6Gb/s SAS drives - 300GB, 450GB, or 600GB 3.5" 7,200 RPM 6Gb/s Nearline SAS drives - 1TB, 2TB, 3TB, 4TB or 6TB	
Expansion enclosure (JBOD) Max drives (via JBOD)	256 (via 4 x JB 2060R) 240 (via 14 x JB 2016R-1) 232 (via 9 x JB 2024RB)	256 (via 4 x JB 2060G) 240 (via 14 x JB 2016G-1) 232 (via 9 x JB 2024SB)
Power supplies	Two redundant 650W	
Green design	80 PLUS power supplies delivering more than 80% energy efficiency	
Form factor [2]	3U rackmount	
TECHNICAL HIGHLIGHTS		
Performance scaling[1]	Read/write acceleration with four(4) SSDs per storage pool	
SERVICE AND SUPPORT [3]		
Standard service	3-year limited hardware warranty and 8x5 phone, web, and email support	
Upgrade/extension options[4]	3-year replacement part dispatch on the next business day **Advanced service**: 3-year 24x7 phone, email and web support + onsite diagnostics on the next business day **Premium service**: 3-year 24x7 phone, email, and web support + onsite diagnostics in four hours Two-year extended warranty option	

	EonNAS 3016R1	**EonNAS 3016S1**
ARCHITECTURE		
Processor	2 x Intel® Core™ i3 dual core	1 x Intel® Core™ i3 dual core
Memory[1]	16GB DDR3 ECC RAM (expandable, up to 64GB)	8GB DDR3 ECC RAM (expandable, up to 32GB)
Controller	Dual redundant controllers(active/active)	Single controller
Host connectivity	8 x 1GbE ports	4 x 1GbE ports
Optional host board	4 x 1GbE ports, 2 x 10GbE(SFP+ or RJ45) ports, 2 x 16Gb FC	
SAS expansion ports	4 x 6Gb/s SAS wide ports	2 x 6Gb/s SAS wide ports
Drive bays	16	
Supported drives [1]	2.5" 6Gb/s SAS SSD - 200GB, 400GB or 800GB 2.5" 10,000 RPM 6Gb/s SAS drives - 300GB, 450GB, 600GB, 900GB or 1.2TB 2.5" 15,000 RPM 6Gb/s SAS drives - 300GB, 450GB, or 600GB 3.5" 7,200 RPM 6Gb/s Nearline SAS drives - 1TB, 2TB, 3TB, 4TB or 6TB	
Expansion enclosure (JBOD) Max drives (via JBOD)	256 (via 4 x JB 2060R) 240 (via 14 x JB 2016R-1) 232 (via 9 x JB 2024RB)	256 (via 4 x JB 2060G) 240 (via 14 x JB 2016G-1) 232 (via 9 x JB 2024SB)
Green design	80 PLUS power supplies delivering more than 80% energy efficiency	
Power supplies	Two redundant 530W	
Form factor[2]	3U rackmount	
TECHNICAL HIGHLIGHTS		
Performance scaling[1]	Read/write acceleration with four(4) SSDs per storage pool	
SERVICE AND SUPPORT [3]		
Standard service	3-year limited hardware warranty and 8x5 phone, web, and email support	
Upgrade/extension options[4]	3-year replacement part dispatch on the next business day **Advanced service**: 3-year 24x7 phone, email, and web support + onsite diagnostics on the next business day **Premium service**: 3-year 24x7 phone, email, and web support + onsite diagnostics in four hours Two-year extended warranty option	

* Easy single to redundant controller upgrade. Please refer to Infortrend sales representatives for details
[1] Please refer to Infortrend sales representatives for details on availability and compatibility
[2] For detailed dimensions, please refer to the Infortrend website
[3] All EonNAS systems ship with standard service
[4] Options may vary by region

Hardware specifications

	EonNAS 3012R1	**EonNAS 3012S1**
ARCHITECTURE		
Processor	2 x Intel® Core™ i3 dual core	1 x Intel® Core™ i3 dual core
Memory [1]	16GB DDR3 ECC RAM (expandable, up to 64GB)	8GB DDR3 ECC RAM (expandable, up to 32GB)
Controller	Dual redundant controllers (active/active)	Single controller
Host connectivity	8 x 1GbE ports	4 x 1GbE ports
Optional host board	4 x 1GbE ports, 2 x 10GbE(SFP+ or RJ45) ports, 2 x 16Gb FC	
SAS expansion ports	4 x 6Gb/s SAS wide ports	2 x 6Gb/s SAS wide ports
Drive bays	12	
Supported drives [1]	2.5" 6Gb/s SAS SSD - 200GB, 400GB or 800GB 2.5" 10,000 RPM 6Gb/s SAS drives - 300GB, 450GB, 600GB, 900GB or 1.2TB 2.5" 15,000 RPM 6Gb/s SAS drives - 300GB, 450GB, or 600GB 3.5" 7,200 RPM 6Gb/s Nearline SAS drives - 1TB, 2TB, 3TB, 4TB or 6TB	
Expansion enclosure (JBOD) Max drives (via JBOD)	252 (via 4 x JB 2060R) 228 (via 9 X JB 2024RB) 120 (via 9 x JB 2012R-1)	252 (via 4 x JB 2060G) 228 (via 9 X JB 2024SB) 120 (via 9 x JB 2012G-1)
Power supplies	Two redundant 530W	
Green design	80 PLUS power supplies delivering more than 80% energy efficiency	
Form factor [2]	2U rackmount	
TECHNICAL HIGHLIGHTS		
Performance scaling [1]	Read/write acceleration with four(4) SSDs per storage pool	
SERVICE AND SUPPORT [3]		
Standard service	3-year limited hardware warranty and 8x5 phone, web, and email support	
Upgrade/extension options [4]	3-year replacement part dispatch on the next business day **Advanced service**: 3-year 24x7 phone, email, and web support + onsite diagnostics on the next business day **Premium service**: 3-year 24x7 phone, email, and web support + onsite diagnostics in four hours Two-year extended warranty option	

	EonNAS 3012RC1	**EonNAS 3012SC1**
ARCHITECTURE		
Processor	2 x Intel® Celeron™ dual core	1 x Intel® Celeron™ dual core
Memory [1]	8GB DDR3 ECC RAM (expandable, up to 64GB)	4GB DDR3 ECC RAM (expandable, up to 32GB)
Controller	Dual redundant controllers (active/active)	Single controller
Host connectivity	8 x 1GbE ports	4 x 1GbE ports
SAS expansion ports	4 x 6Gb/s SAS wide ports	2 x 6Gb/s SAS wide ports
Drive bays	12	
Supported drives [1]	2.5" 6Gb/s SAS SSD - 200GB, 400GB or 800GB 2.5" 10,000 RPM 6Gb/s SAS drives - 300GB, 450GB, 600GB, 900GB or 1.2TB 2.5" 15,000 RPM 6Gb/s SAS drives - 300GB, 450GB, or 600GB 3.5" 7,200 RPM 6Gb/s Nearline SAS drives - 1TB, 2TB, 3TB, 4TB or 6TB	
Expansion enclosure (JBOD) Max drives (via JBOD)	252 (via 4 x JB 2060R) 228 (via 9 X JB 2024RB) 120 (via 9 x JB 2012R-1)	252 (via 4 x JB 2060G) 228 (via 9 X JB 2024SB) 120 (via 9 x JB 2012G-1)
Power supplies	Two redundant 530W	
Green design	80 PLUS power supplies delivering more than 80% energy efficiency	
Form factor [2]	2U rackmount	
TECHNICAL HIGHLIGHTS		
Performance scaling [1]	Read/write acceleration with four(4) SSDs per storage pool	
SERVICE AND SUPPORT [3]		
Standard service	3-year limited hardware warranty and 8x5 phone, web, and email support	
Upgrade/extension options [4]	3-year replacement part dispatch on the next business day **Advanced service**: 3-year 24x7 phone, email, and web support + onsite diagnostics on the next business day **Premium service**: 3-year 24x7 phone, email, and web support + onsite diagnostics in four hours Two-year extended warranty option	

* Easy single to redundant controller upgrade. Please refer to Infortrend sales representatives for details
[1] Please refer to Infortrend sales representatives for details on availability and compatibility
[2] For detailed dimensions, please refer to the Infortrend website
[3] All EonNAS systems ship with standard service.
[4] Options may vary by region

Hardware specifications

EonNAS 3012T1

HARDWARE

Processor	Intel® Xeon™ E3 quad core
Memory	8GB DDR3 ECC RAM (expandable, up to 32GB) [1]
Controller	Single controller
Host connectivity	4 x 1GbE ports
Optional host board	4 x 1GbE ports, 2 x 10GbE ports (SFP+ or RJ45), 2 x 16Gb FC
SAS expansion ports	2 x 6Gb/s SAS wide ports
Supported drives [2]	2.5" 6Gb/s SAS SSD - 200GB, 400GB or 800GB 2.5" 10,000 RPM 6Gb/s SAS drives - 300GB, 450GB, 600GB, 900GB or 1.2TB 2.5" 15,000 RPM 6Gb/s SAS drives - 300GB, 450GB, or 600GB 3.5" 7,200 RPM 6Gb/s Nearline SAS drives - 1TB, 2TB, 3TB, 4TB or 6TB
Expansion enclosure (JBOD) Max drives (via JBOD)	252 (via 4 x JB 2060G) 228 (via 9 X JB 2024SB) 120 (via 9 x JB 2012G-1)
Power supplies	Two redundant 530W
Green design	80 PLUS power supplies delivering more than 80% energy efficiency
Form factor [3]	2U rackmount

TECHNICAL HIGHLIGHTS

Performance scaling [2]	Read/write acceleration with four (4) SSDs per storage pool (max 6 storage pools)

SERVICE AND SUPPORT [4]

Standard service	3-year limited hardware warranty and 8x5 phone, web, and email support
Upgrade/extension options[5]	3-year replacement part dispatch on the next business day **Advanced service**: 3-year 24x7 phone, email, and web support + onsite diagnostics on the next business day **Premium service**: 3-year 24x7 phone, email, and web support + onsite diagnostics in four hours Two-year extended warranty option

[1] For memory upgrades, please contact your sales representative
[2] Please refer to Infortrend sales representatives for details on availability and compatibility
[3] For detailed dimensions, please refer to the Infortrend website

[4] All EonNAS systems ship with standard service
[5] Options may vary by region

Expansion enclosures

From 2U 12-bay to 4U 60-bay, JB enclosures provide seamless expansion. Up to 14 can be scaled-out, with as many as 256 NL-SAS, or SAS drives. Easy-deployment JB series enclosures connect to EonNAS systems via 6Gb/s SAS, and use redundant 80 PLUS power supplies to ensure availability.

	JB 2012R-1	JB 2012G-1	JB 2016R-1	JB 2016G-1
Controller	Dual redundant	Single	Dual redundant	Single
Host connectivity (per controller)	2 x 6Gb/s SAS 4x wide ports			
Drive connectivity	6Gb/s SAS			
Drive bays	12		16	
Corresponding EonNAS models[1]	EonNAS 3012R1 EonNAS 3012RC1	EonNAS 3012T1 EonNAS 3012S1 EonNAS 3012SC1	EonNAS 3016R1 EonNAS 3016RT1	EonNAS 3016S1 EonNAS 3016ST1
Power supplies	Two redundant 460W			
Form factor[2]	2U, 19-inch rackmount		3U, 19-inch rackmount	
Service and support[3]	Standard service	3-year limited hardware warranty and 8x5 phone, web, and email support		
	Upgrade/Extension options[4]	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 service up to 5 years		

	JB 2060R	JB 2060G	JB 2024RB	JB 2024SB
Controller	Dual redundant	Single	Dual redundant	Single
Host connectivity (per controller)	2 x 6Gb/s SAS 4x wide ports			
Drive connectivity	6Gb/s SAS			
Drive bays	60	60	24	24
Corresponding EonNAS models[1]	EonNAS 3016R1 EonNAS 3016RT1 EonNAS 3012R1 EonNAS 3012RC1	EonNAS 3012T1 EonNAS 3012S1 EonNAS 3012SC1	EonNAS 3016R1 EonNAS 3016RT1 EonNAS 3012R1 EonNAS 3012RC1	EonNAS 3012T1 EonNAS 3012S1 EonNAS 3012SC1
Power Supplies	Two redundant 1600W		Two redundant 530W	
Form factor[2]	4U, 19-inch rackmount		2U, 19-inch rackmount	
Service and support[3]	Standard Service	3-year limited hardware warranty and 8x5 phone, web and email support		
	Upgrade/Extension options[4]	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. Please refer to corresponding models for supported drives on expansion enclosures
2. For detailed dimensions, please visit the Infortrend website
3. All expansion enclosures ship with standard service
4. Options may vary by region

Protocols

- File level:
  CIFS/SMB, AFP, NFS, FTP, iSCSI, NDMP
- Block level: iSCSI/FC

Operating system support[1]

Windows XP, Windows Vista (32/64-bit), Windows 7 (32/64-bit), Windows 8, Mac OS X , Red Hat, SUSE, Oracle OpenSolaris, AIX, HP-UX, Windows Server 2003, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2

File system

- Internal: ZFS
- External: FAT32, NTFS

Networking

- IPv6 support
- Fixed or dynamic IP address
- Jumbo Frame
- Port trunking/NIC teaming/Link aggregation (IEEE 802.3ad)
- DHCP Client
- MPIO, MC/S support
- VLAN tag
- Bonjour support

Security

- HTTPS connection
- Encrypted remote replication (rsync with 128-bit SSH) between Infortrend NAS
- encrypted pool mirror (IPsec)
- CHAP authentication for iSCSI volumes

RAID and volume management

- Data pool: RAID 0/1/5/5 + hot spare/6/6+ hot spare/10/50/60
- Online and automatic RAID capacity expansion
- Compression
- Thin provisioning (iSCSI volumes only)
- SPC-3 persistent reservation (iSCSI volumes only)

Power management

- HDD sleep mode
- Scheduled power on/off
- Wake on LAN
- Network UPS with SNMP management

Performance scaling

- Read/write acceleration with SSD[1]

Access right management

- User account management
- Group management
- Folder management - folder and subfolder access control
- Folder quota
- Comprehensive access control action items
- Support for Windows AD authentication
  - Domain users login via CIFS/ SMB, AFP, FTP, file explorer
- LDAP

Browser support

- Internet Explorer, Firefox , Google Chrome

Server virtualization

- VMware vSphere(ESXi)
- Citrix XenServer
- Windows Server 2012/2008 Hyper-V

System management

- Commend line interface (CLI) editing
- EonOne central management utility
- Global Namespace
- Web-based GUI
- HTTP/HTTPS connections
- Email alerts
- SNMP
- System status monitoring
- Exportable event logs
- System settings backup and restore
- Disk roaming
- Time synchronization with NTP server
- HDD S.M.A.R.T

Data protection

- ZFS end-to-end data integrity
  - Detects and automatically repairs data affected by silent corruption
- Snapshot
  - Unlimited
  - For both shared folders and iSCSI volumes
  - Scheduling at intervals as short as 10 mins
  - Automatic snapshot pruning based on user-configured policy

- Enterprise Vault Snapshot
  - Volume or folder replication
  - 128-bit SSH encryption

- Remote replication
  - Rsync with 128-bit SSH encryption between Infortrend NAS
- Smart media scan
- Pool Mirror
  - Remote data mirroring
  - Real-time or scheduled
  - IPsec encryption
- WORM (Write once, Read Many)

File Server

- Protocols: CIFS/SMB[2], AFP, NFS, FTP
- Client operating system: Windows, Mac OS, Linux
- File/folder management by web browser

FTP Server

- Max. concurrent connection control
- Max. failed log-in attempt control

Backup Server

- Apple Time Machine discoverability
- Windows Backup and Recovery support
- Remote replication
  - Rsync with 128-bit SSH encryption between Infortrend NAS
- 3rd-party backup software support [3]
  - Acronis Backup & Recovery ™/ True Image Home
  - Symantec Backup Exec 2012
  - EMC Retrospect Backup & Recovery
  - Commvault Simpana
  - Veeam backup & Replication
  - CA ARCserve® Backup

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[1] For the latest compatibility details, please contact our sales representatives.
[2] Support SMB 1.0/2.0/2.1/3.0
[3] For feature support details, please also check the relevant vendor compatibility list