



Infotrend®
EonNAS

EonNAS 1000 Series

Fully optimized for the applications that power your business

Highlights

Infotrend's EonNAS 1000 Series offers rackmount NAS solutions designed to help SMBs and SOHO users optimize file sharing, IP SAN applications and data backup.

Enterprise-level features that can be easily accessed and configured through an intuitive user interface, such as data deduplication, snapshot and remote replication, deliver high efficiency, excellent reliability and simple management.

Why EonNAS 1000

- **Eliminate storage waste caused by duplicated data**

In office environments, large amounts of storage capacity are consumed by duplicated data. To help you more efficiently utilize capacity, EonNAS 1000 comes with enterprise-level **data deduplication** technology. The block-based deduplication on EonNAS 1000 systems helps you achieve **storage savings of up to 90%**. In other words, 10TB of data in your old NAS device can now be stored in 1TB of storage space on EonNAS 1000.

- **Data availability no longer compromised due to time and storage space limitations**

Granular recovery points are extremely important. The finer the granularity, the better you're able to keep data intact when accidents happen. EonNAS 1000 protects **shared folders and iSCSI volumes** with **snapshot** technology. Multiple recovery points can be created at minimized time intervals, space requirements and management effort. In the event of data corruption or accidental deletions, you can **restore data in an instant**.

- **No-data-loss disaster recovery in an instant**

To mitigate a disaster's impact on business continuity, data loss and downtime have to be minimized. The built-in **pool mirror** function on EonNAS 1000 systems helps you perform **real-time data replication** between two different systems. When the primary system goes down, the standby system, which features exactly the same data, can seamlessly take over services at minimized downtime.

- **Detect and repair data affected by silent data corruption**

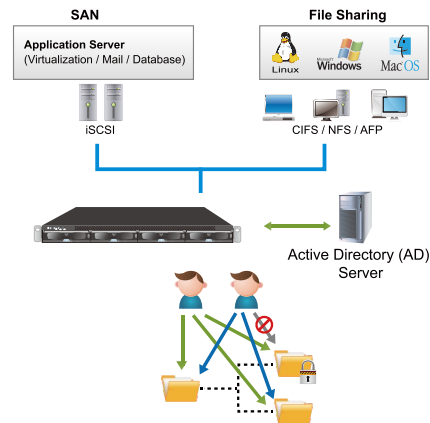
Scientific experiments have shown that in 1TB of data, 2 to 3 files can be "silently" corrupted by errors not detected by common file systems. This poses a significant threat to business applications, in particular when disk space grows. The **ZFS file system** embedded in EonNAS 1000 systems, featuring a hierarchical checksum mechanism, **effectively detects data affected by silent data corruption phenomena and repairs affected data with self-healing features**, ensuring end-to-end data integrity.



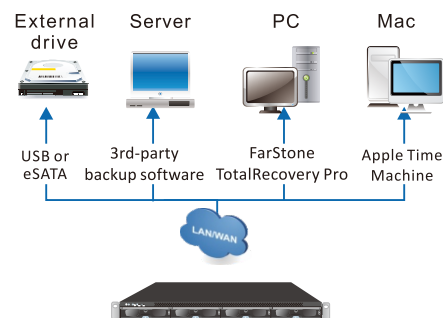
Advanced File Sharing and IP SAN Support

With comprehensive network protocol support on EonNAS 1000 systems, files can be easily shared among local and remote workstations featuring **Windows, MAC or Linux** platforms. **Access control for folders and subfolders** allows you to easily meet different user requirements in the office. For consolidated management, you can also choose to import account information from **Windows Active Directory (AD)** to EonNAS 1000 systems.

The built-in iSCSI target support on EonNAS 1000 enables you to deploy **SAN** and serve applications such as mail servers, databases and virtualization. EonNAS 1000 systems are compatible with **VMware, Hyper-V and Citrix** virtualization platforms. With **CHAP authentication**, iSCSI data can be kept secure from unauthorized initiators. Capacity utilization is further enhanced by **thin provisioning** technology. By dynamically allocating capacity to applications on an as-needed basis, EonNAS 1000 eliminates pre-allocated yet unused data volumes and simplifies storage resource management. In addition, EonNAS 1000 supports **MPIO and MC/S** to help users achieve **data path failover, load balancing, and enhanced performance**.



With EonNAS 1000 systems, users can backup data in various ways. EonNAS 1000 comes with **free licenses for FarStone TotalRecovery Pro** backup software. You can leverage this solution, or other **compatible third-party software**, to backup PC and server data. For Mac users, EonNAS 1000 supports **Apple Time Machine**. Data backup to or from external disk drives can be achieved via **USB or eSATA** connections. You can also configure USB-based data transfer for **one-touch-copy**, enabling you to complete a data copy with a single button press when an external drive is connected via the USB port at the front of the EonNAS 1000 series chassis.

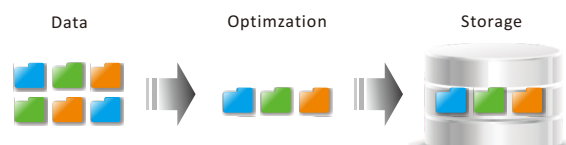


Comprehensive Backup Options

Optimized Storage Capacity Utilization

EonNAS 1000 ensures you get the most out of your available storage capacity. EonNAS 1000 comes with **inline, block-based data deduplication**, a feature often seen only in enterprise storage solutions. Duplication calculations are performed as each new data block enters deduplication-enabled volumes. When the system sees that an identical block is already present in the volume, the new block will be discarded and only a pointer will be created for reference to the existing block. By removing duplicate data blocks, the technology offers storage space savings of around **90% in backup applications, 70% in virtualization environments and 40% for common office files**.

In-Line Deduplication



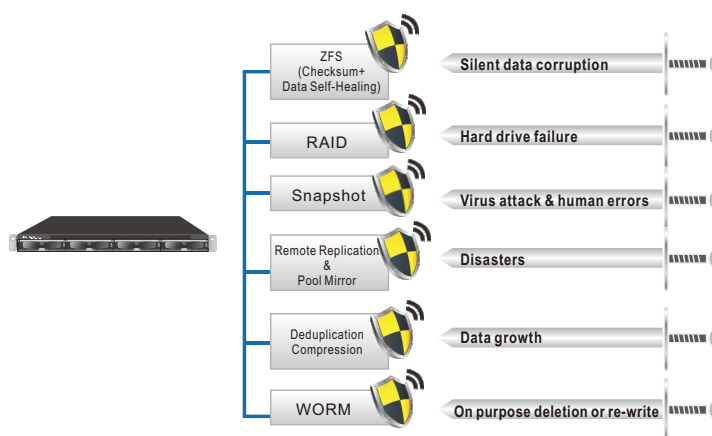
Robust Data Protection

Core business assets are protected with robust, enterprise-class features. EonNAS 1000 features **RAID protection**, which ensures data stays intact even during simultaneous failures of up to two disk drives. When a drive failure occurs, a pre-assigned **hot spare** will be automatically leveraged to rebuild the original RAID configuration. In addition, disk drives are **hot-swappable**, meaning they can be replaced without disrupting your applications on the EonNAS 1000 system. In rare cases of system failure, you can quickly restore services simply by removing the drives on the old system and putting them into a replacement system. All your data and settings can be recovered following initial set-up.

The embedded **ZFS file system** ensures end-to-end data integrity through a **hierarchical checksum mechanism**. When a data block is created, a checksum of this block is stored in its parent block pointer. Whenever a block is accessed, its checksum is calculated and compared with the stored checksum value for integrity. This unique mechanism allows EonNAS 1000 systems to effectively **detect data corruption phenomena** that go undetected in other file systems, and **automatically repair affected data** with ZFS self-healing features.

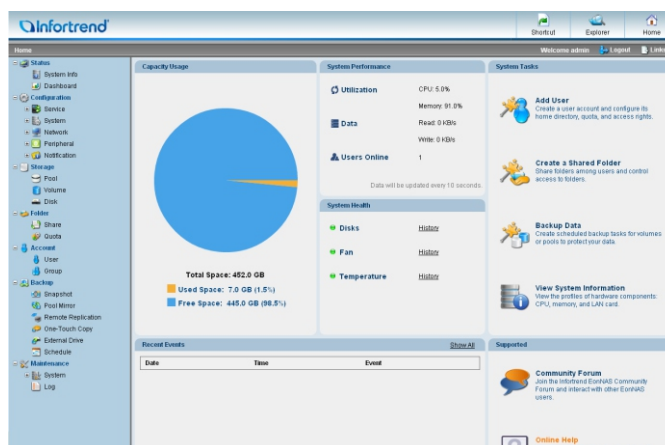
The **snapshot** feature helps you deploy multiple recovery points for iSCSI volumes or shared folders at minimized time intervals and space requirements. In the event of human errors or virus attacks, you can **quickly restore data** with the snapshot copies. EonNAS 1000 will **automatically remove snapshot images** when the number of snapshots or their retention period exceeds pre-set thresholds.

Remote replication offers scheduled data replication to another EonNAS 1000 system or third-party device via the **rsync protocol**. In addition, the **pool mirror** function supports **real-time replication** that keeps data in two different EonNAS 1000 systems synced at all times, ensuring that a standby system can seamlessly take over operations when the primary system goes down.



User-friendly System Management and Monitoring

System management for the EonNAS 1000 is extremely easy. Within less than 15 minutes you can complete the process from power-on to initial set-up. A user-friendly, web-based UI helps you manage your system intuitively. You can easily access all frequently-used features via **shortcuts** and quickly complete required configurations with **step-by-step wizards**. EonNAS 1000 also supports a dashboard feature to help you monitor **real-time system status**. EonNAS 1000 notifies you of critical system events in a number of ways, such as **LEDs, system buzzers, email notifications and SNMP**.



Hardware

Model	EonNAS 1004L	EonNAS 1008L	EonNAS 1008C
CPU	Intel Atom Dual-Core 2.13GHz	Intel Atom Dual-Core 2.13GHz	Intel Celeron Dual-Core 2.5GHz
RAM	2GB DDR3 (expandable, up to 4GB) ¹	4GB DDR3	4GB DDR3 (expandable, up to 16GB) ¹
Host Connectivity	2 x 1GbE ports		
Internal Hard Disks	4 x 3.5" SATAII/SATAIII	8 x 3.5" SATAII/SATAIII	8 x 3.5" SATAII/SATAIII
Max. Internal Capacity	16TB	32TB	32TB
USB Ports	2 x USB 3.0 rear 5 x USB 2.0 (1 x front, 4 x rear)	2 x USB 3.0 rear 4 x USB 2.0 rear	6 x USB 2.0 rear
eSATA Ports	1		-
Dimensions	1U, 19" Rackmount: 43(H) x 439(W) x 511(D) mm	2U, 19" Rackmount: 88.3(H) x 443.2(W) x 651.4(D) mm	
Weight (w/o HDD) (with HDD)	<ul style="list-style-type: none"> • 6.94kg / 15.27lb • 10.14kg / 22.30lb 	<ul style="list-style-type: none"> • 12.3kg / 27.06lb • 18.5kg / 40.70lb 	<ul style="list-style-type: none"> • 13.35kg / 29.43lb • 18.70kg / 41.23lb
Power	<ul style="list-style-type: none"> • Internal 250W • AC voltage: 100-240V~3.5A with PFC (auto-switching) • Frequency: 47-63 Hz 	<ul style="list-style-type: none"> • Two (2) redundant internal 300W • AC voltage: 100-240V~ 5-2.5A with PFC (auto-switching) • Frequency: 47-63 Hz 	<ul style="list-style-type: none"> • Two (2) redundant internal 550W • AC voltage: 100-240V ~ 10-5A with PFC (auto-switching) • Frequency: 47-63 Hz
Fan	2 x SmartFan (4cm, 12V DC)	2 x SmartFan (8cm, 12V DC)	
Acoustic Level	• Access Mode: 30.9 dB	• Access Mode: 46.9 dB	• Access Mode: 47.4 dB
Service and Support	<ul style="list-style-type: none"> • 3-year limited hardware warranty • 2-year extended warranty option² • Free online support 		

Model	EonNAS 1012
CPU	Intel Core i3 Dual-Core 3.3GHz
RAM	4GB (expandable, up to 16GB) ¹
Host board	2 x 1GbE ports
Optional host board	4 x 1GbE ports, 2 x 10GbE ports(SFP+ or RJ45), 2 x 16Gb FC
Internal Hard Disks	12 x 3.5" SATAII/SATAIII
Max. Internal Capacity	48TB
USB Ports	6 x USB 2.0 rear
Dimensions	2U, 19" Rackmount: 88.3(H) x 443.2(W) x 651.4(D) mm
Weight	<ul style="list-style-type: none"> • 13.10kg / 28.88lb (without HDD) • 21.76kg / 47.97lb (with HDD)
Power	<ul style="list-style-type: none"> • Two (2) redundant internal 550W power supplies • AC voltage: 100-240V / 10-5A with PFC (auto-switching) • Frequency: 47-63 Hz
Fan	2 x SmartFan (8cm, 12V DC)
Acoustic Level	• Access Mode: 45.0 dB
Service and Support	<ul style="list-style-type: none"> • 3-year limited hardware warranty • 2-year extended warranty option² • Free online support

¹ For memory upgrade, please contact your sales representative.

² Please contact regional sales representative for details.

Software

Protocols

CIFS/SMB, AFP, NFS, FTP, iSCSI, SNMP, SMTP, NDMP, NTP, ICAP, FTPS, Secure FTP

Client Operating System Support

Windows XP, Vista (32/64-bit), Windows 7 (32/64-bit), Windows 8, Apple Mac OS X, Linux, Red Hat, SuSE

Server Virtualization¹

VMware vSphere 5, Citrix XenServer, Windows Server 2008 /2012 (incl. Hyper-V)

Server OS Support¹

Windows Server 2003, Windows Server 2008 R2, Windows Server 2012, Red Hat, SUSE, Sun Solaris, Mac OS X

File System

- Internal: ZFS
- External: FAT32, NTFS

Networking

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

Security

- HTTPS connection
- Encrypted remote replication (rsync with 128-bit SSH)⁴
- Encrypted Pool Mirror (IP-Sec)
- CHAP authentication for iSCSI volumes
- AES 256-bit Encryption

RAID and Volume Management

- RAID0/1/5/5 + Hot spare/6/6+ Hot spare/10/50/60²
- Online and automatic RAID capacity expansion
- Deduplication: Inline, block-level
- Compression
- Thin provisioning (iSCSI volumes only)
- SPC-3 Persistent Reservation (iSCSI volumes only)

Power Management

- Wake on LAN
- Network UPS with SNMP management
- Scheduled Power On/Off
- HDD Sleep-Mode

Access Right Management

- User account management
- Group management
- Folder management
 - Folder and subfolder access control
- Folder quota
- Comprehensive access control action items
 - All Controls, Read, Read and Run, Write, Modify, List
- Support for Windows AD authentication
 - Domain users login via CIFS/ SMB, AFP, FTP, file explorer
- LDAP on Linux

Browser Support

- Internet Explorer, Firefox, Google Chrome

System Management

- 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 the NTP server
- HDD S.M.A.R.T.

Data Protection

- ZFS end-to-end data integrity
 - Detects and automatically repairs data affected by silent data corruption
- Snapshot
 - Unlimited number
 - For both shared folders and iSCSI volumes
 - Scheduling at intervals as short as 10 mins.
 - Automatic snapshot copy pruning based on user-configured policy
- Remote replication
 - 128-bit SSH encryption between EonNAS systems
 - Rsync-based replication to another EonNAS or 3rd-party NAS
- Pool mirror
 - Remote data mirroring
 - Real-time or scheduled
 - IPsec encryption
- ICAP-based anti-virus support
- WORM (Write Once, Read Many)

File Server

- Protocols: CIFS/SMB, 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 support
- Windows Backup and Recovery support
- Bundled free licenses for FarStone TotalRecovery Pro 9:
 - EonNAS 1004L: incl. 4 licenses
 - EonNAS 1008L/ 1008C: incl. 8 licenses
 - EonNAS 1012: incl. 12 licenses
- Backup to external storage devices via USB or eSATA³ connection
- USB one-touch-copy: Import/Export³
- Remote replication
 - Rsync-based replication to another EonNAS or 3rd-party NAS
- 3rd-party backup software support⁵
 - Acronis Backup & Recovery™/ True Image Home
 - Symantec Backup Exec 2012
 - EMC Retrospect Backup & Recovery
 - CA ARCserve® Backup

¹ For the latest compatibility details, please contact our sales representatives.

² Only EonNAS 1008C and 1012 support RAID 50 and RAID 60

³ Only EonNAS 1004L and 1008L

⁴ Support Infortrend EonNAS only. For the latest information, please contact your Infortrend sales representative.

⁵ For feature support details, please also check the relevant vendor compatibility list



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