

TrueNAS® M-Series

Enterprise Storage. Open Source economics.

Open Enterprise Storage, based on FreeNAS®, the world's #1 software-defined storage OS, hardened and tuned for enterprise storage applications.

Businesses today demand more powerful, reliable, and flexible storage. To keep pace, IT departments often implement solutions that tax their storage budgets in order to scale storage along with the demand. Traditional solutions can create massively-complex storage islands that are often expensive, inefficient, and difficult to manage. By contrast, TrueNAS offers a solution that combines the flexibility of unified storage, the performance and efficiency of flash, the capacity of hard disks, the familiarity and simplified management of the FreeNAS user interface, and white-glove enterprise support.

Every TrueNAS enterprise storage appliance includes block, file, and S3-compliant object storage protocols. Its unified hardware and software architecture supports block, file, and S3-compatible object protocols and conserves power, space, and cooling, to support multiple applications, reduces deployment risks, and decrease possible failure points. Its hybrid storage pools and intelligent storage optimization maximize storage efficiency with consolidation ratios of 2.5x for data. TrueNAS includes compression, deduplication, snapshots, and replication at no extra cost.

Every TrueNAS enterprise storage appliance is cloud ready, enabling customers to deploy on-premise clouds that are fully Amazon S3-compliant or to backup data to the public cloud. Services and applications developed for the S3 can be migrated to TrueNAS, bringing the benefits of the public cloud to the data center. In addition to supporting the Amazon S3 protocol, TrueNAS offers a full range of NAS and SAN protocols. TrueNAS delivers performance, scalability, data integrity, reliability, and ease-of-management for companies that never sleep.

HYBRID STORAGE POOLS WITH TRUETCACHETM

TrueNAS leverages a technology called TrueCache to merge multi-layer, non-volatile cache with high-density spinning disks in order to deliver solid-state performance at spinning-disk capacity and cost. System RAM and SSDs are used to cache reads and writes while HDDs store the data. The performance of RAM and SSD are orders of magnitude faster than HDDs, while their power requirements are much lower. TrueNAS lets you increase performance and scale capacity while conserving power and saving money.



SELF-HEALING FILE SYSTEM

Data integrity is the name of the game, and TrueNAS leaves nothing to chance when it comes to your data. In-flight data corruption is automatically detected and repaired before it ever reaches disk, and bit rot and data decay are identified and scrubbed clean, forever preserving data for posterity. Simply put, what you store on an iXsystems storage solution today will look the same tomorrow, a year from now, or even 10 years from now.

INTELLIGENT STORAGE OPTIMIZATION

TrueNAS includes in-line compression and deduplication at no additional cost. The TrueNAS Adaptive Compression (TAC) algorithm efficiently boosts storage performance while maximizing storage capacity. TAC intelligently adjusts its compression ratio without wasting system resources. Before data is stored, TrueNAS dynamically detects and compresses what it can and skips over any data too inefficient to be worthwhile.

TrueNAS supports an inline block-based deduplication that, when enabled, finds common blocks inside every virtual and physical application, such as Linux and Windows VMs. The combination of compression and deduplication maximizes storage efficiency.

UNLIMITED SNAPSHOTS & REPLICATION

Most storage appliances require additional licenses for advanced features - not TrueNAS. Unlimited file version retention and restoration are at your fingertips. Data is automatically protected locally against unintentional alteration, such as ransomware or malware, with minimal storage consumption. It can be bi-directionally replicated remotely or to the cloud for backups or disaster recovery. TrueNAS snapshots can also be synchronized with VMware snapshots and the synchronization of VMware snapshots can be managed through the TrueNAS administrative UI. With TrueNAS, any data protection or disaster recovery policy is simple to implement and maintain.



SOFTWARE SPECIFICATIONS

FILE-BASED PROTOCOLS

- SMB
- NFSv3, v4
- AFP
- FTP
- WebDAV

BLOCK-BASED PROTOCOLS

- iSCSI
- Fibre Channel
- OpenStack Cinder

OBJECT PROTOCOLS

- S3-compliant

DIRECTORY SERVICES

- Active Directory (AD)
- Kerberos
- Lightweight Directory Access Protocol (LDAP)
- Apple Open Directory
- Network Information Service (NIS)

NETWORKING

- Port Trunking/NIC Teaming and IEEE 802.3ad Link Aggregation
- IEEE 802.1q VLAN support

VIRTUALIZATION

- Supports VMware and VAAI, ESXi Snapshot integration, VM Warn/Stun
- Supports KVM, Citrix XenServer, Microsoft Hyper-V, bhyve, KVM, and other common hypervisors
- VSS, ODX, and CSV

SUPPORTED PUBLIC CLOUD PROVIDERS

- Amazon Simple Storage Service (S3)
- BackBlaze B2 Cloud
- Google Cloud
- Microsoft Azure

FILE SYSTEM

- Self-healing file system
- Intelligent in-line compression
- Snapshots and clones
- Thin provisioning
- Online capacity expansion
- Virtual block devices
- In-line deduplication
- ZFS Stripe, ZFS Mirror, RAIDZ, RAIDZ2, RAIDZ3
- Compatible with AVID® ISIS® and Nexis®¹

BACKUP

- Bidirectional OpenZFS remote replication
- rsync
- Storage supports Acronis, Veeam, Nakivo, NetBackup, and other backup products
- Backup data to public clouds

REMOTE ADMINISTRATION

- Graphical administrative interface over HTTP/HTTPS
- Alert notifications via email, AWS-SNS, Hipchat, InfluxDB, Slack, Mattermost, OpsGenie, PagerDuty, and VictorOps
- Ability to send logs to a remote syslog server
- Automated backup of system configuration and state
- Reporting graphs
- Signed updates with the ability to return to the prior version of the operating system
- SNMP MIBs
- IPMI remote console and power management
- REST API

SUPPORTED OPERATING SYSTEMS

- Microsoft Windows XP, Vista (32/64-bit), 7 (32/64-bit), 8/8.1, 10, 2003/2008, R2/2012, and R2/2016
- macOS (all versions)
- Linux
- UNIX
- BSD

Open, Unified, and Hybrid Storage with Simple Management, Intelligent Compression, High Availability, and Flash-based Acceleration.

Flash-powered Enterprise Storage.

TrueNAS unified storage appliances offer storage flexibility, performance, reliability, and management simplicity.

Call or Click Today!

855-GREP-4-IX (US) | 408-943-4100 (non-US) | ixsystems.com/TrueNAS

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HARDWARE SPECIFICATIONS

AVAILABLE DRIVES

- 7.2k RPM: 2 TB, 4 TB, 6 TB 8 TB, 10 TB, 12 TB, and 14 TB
- SSD: 960GB, 1.6 TB, 1.92 TB, 3.2 TB, 3.84 TB, 7.68 TB
- All drives are SAS

POWER MANAGEMENT

- Dual redundant, hot-swappable, high-efficiency (80+) Platinum power supplies
- 100-240V Input Power Supported (Auto-Switching)
- Remote power on/off
- UPS signal response and alerts

DISK MANAGEMENT

- Hot Spares
- Hot-Swappable drives
- Bad Block Scan + HDD S.M.A.R.T.
- Enclosure Monitoring and Alert LEDs
- ISO Mounting Support
- Hard Drive Activity/Alert LEDs
- Hardware-Accelerated Disk Encryption

PHYSICAL PARAMETERS

- Dimensions: 27"x19"x7" (LxWxH)
- Operating temperature: 0°C to 35°C
- Non-operating temperature: -20°C to 70°C
- Humidity: 5% to 95% non-condensing
- RoHS 6/6 compliant, CE, FCC Class A, UL

TRUENAS SYSTEMS

TRUENAS M40

- Hybrid Storage
- Supports single or redundant storage controllers
 - Second storage controller can be added later to upgrade to HA
- Up to 2 PB capacity
- 128 RAM per storage controller
- Up to 2.4 TB SSD-based read cache
- NVDIMM-based Write Cache
- Up to 2x 40GbE (or 4x 10GbE) + 2x 10GbE interfaces per controller
- Up to 4x 16Gb Fibre Channel interfaces per controller
- Maximum Power Draw*
 - Redundant controller: 779 Watts
 - Single controller: 404 Watts
 - BTU: 1377/2647 BTU/h

TRUENAS M50

- Hybrid Storage
- Supports single or redundant storage controllers
 - Second storage controller can be added later to upgrade to HA
- Up to 10.4 PB capacity
- 256GB-1.5TB RAM per storage controller
- Up to 6.4 TB of NVMe-based read cache
- NVDIMM-based Write Cache
- Up to 4x 100/50/40GbE or 8x 10GbE per controller
- Up to 4x 32Gb or 16Gb Fibre Channel interfaces per controller
- Maximum Power Draw*
 - Redundant controller: 905 Watts
 - Single controller: 471 Watts
 - BTU: 1607/3089 BTU/h

¹ iXsystems is not affiliated in any way with AVID® Technology, Inc.

* Power calculations are without hard drives populated. Hard drive calculations can be made using the following maximum guidelines (per drive): 3.5" 7200RPM - 13W; 3.5" 10K RPM - 14W; 3.5" 15K RPM - 15W; 2.5" 10K RPM - 10W; SSD - 15W

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