

TrueNAS[®] Unified Storage

The world's leading storage server, FreeNAS, hardened and tuned for enterprise storage applications.

Businesses today demand more powerful, reliable, and flexible storage than ever before. To keep pace, IT departments must 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 solid state flash drives, 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 is a NAS and a SAN, offering a full range of storage protocols. Its unified architecture reduces deployment risks, conserves power, space, and cooling, and reduces possible failure points by an order of magnitude. Its hybrid storage pools and intelligent storage optimization allow you to maximize storage efficiency by achieving consolidation ratios of 2X for hot or active data to 10X for cold or off-line data. TrueNAS includes compression, deduplication, snapshots, and replication at no extra cost.

Whether it is a primary file store, offsite replication target for business continuity, VM storage, databases, audio/video editing, or media storage, there is a TrueNAS model to fit the application. TrueNAS is performance, scalability, data integrity, reliability, and ease-of-management for business that never sleeps.

TrueCache™: HYBRID STORAGE POOLS

Solid-state performance at spinning-disk capacity and cost. TrueNAS leverages a technology called TrueCache™ that merges multi-layer non-volatile cache with high-density spinning disks. 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. iXsystems also offers an all-flash model, the TrueNAS Z50 TrueFlash.

"Storage this powerful should have another zero in the price tag."

Terry Rataiczak, CEO, Kinetic Networking



INTELLIGENT STORAGE OPTIMIZATION

TrueNAS includes in-line compression and deduplication at no additional cost. The TrueNAS Adaptive Compression (TAC) algorithm is so efficient that it actually 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.

Deduplication is designed to work best with block I/O and the all-flash TrueNAS Z50 TrueFlash. TrueNAS provides an in-line block based deduplication that when enabled will find common blocks inside every virtual and physical application, such as Linux and Windows VMs. The combination of compression and deduplication allow you to maximize 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 with minimal storage consumption and can be bi-directionally replicated remotely for backups or disaster recovery. TrueNAS snapshots can also be synchronized with VMware snapshots, allowing you to manage VMware snapshots through the TrueNAS GUI. With the power of TrueNAS, any data protection or disaster recovery policy is simple to implement and maintain.

SELF-HEALING FILE SYSTEM

Data integrity is the name of the game, and TrueNAS leaves nothing about your data to chance. 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.



SOFTWARE SPECIFICATIONS

FILE-BASED PROTOCOLS

- CIFS/SMB, SMBv3, SMBv4
- NFS v3, v4
- AFP
- FTP
- WebDAV

BLOCK-BASED PROTOCOLS

- iSCSI
- Fibre Channel

DIRECTORY SERVICES

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

NETWORKING

- Port Trunking/NIC Teaming (Modes: Balance - rr, Active Backup, Balance xor,
- Broadcast, IEEE 802.3ad Link Aggregation)
- VLAN Support
- DHCP client, DHCP Server

VIRTUALIZATION

- VMware Ready (ESXi 5.5), VAAI Block, ESXi Snapshot integration, VM Warn/Stun
- Citrix Ready Verified (Citrix XenServer 6.0)
- Certified for Windows Server 2012 R2 (includes Hyper-V), ODX

SUPPORTED BROWSERS

- Internet Explorer 7.x and later
- Firefox 3.x and later
- Safari 3.x and later
- Chrome 3.x and later

FILESYSTEM

- Intelligent in-line compression
- Snapshots and clones
- Thin provisioning
- Self-healing file system
- Online capacity expansion
- Virtual block devices
- In-line deduplication
- ZFS Stripe, ZFS Mirror, RAID-Z, RAID-Z2, RAID-Z3

BACKUP

- ZFS Remote Replication
- Bidirectional Remote Replication
- rsync

REMOTE ADMINISTRATION

- HTTP/HTTPS Web Interface
- Email Alerts
- Remote Syslog Client
- Backup & Restore System Settings and State
- Restore to Factory Default
- Resource Monitor
- Log and Event Collection
- Automatic Online Updates
- SNMP server/MIB
- 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, Server 2003/2008 R2/2012 R2/2016
- Macintosh OS X (all versions)
- Linux
- UNIX
- BSD

TrueNAS Unified Storage. Hybrid Storage with Simple Management, Intelligent Compression, High Availability, and TrueCache acceleration.

Storage Without Compromise.

TrueNAS Unified Storage Appliances offer storage flexibility, performance, reliability, and management simplicity. Here's a partial list of the features available in every TrueNAS Storage Appliance.

Call or Click Today!

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

2490 Kruse Drive | San Jose, CA 95131



HARDWARE SPECIFICATIONS

AVAILABLE DRIVES

- 7.2k RPM: 2TB, 3TB, 4TB, 6TB and 8TB
- 10k RPM: 300GB, 600GB, 900GB, 1.2TB & 1.8TB
- 15k RPM: 300GB, 450GB, and 600GB
- SSD: 250GB/400GB/500GB/800GB/1TB/1.6TB/1.92TB/3.84TB, L2ARC/ZIL
- All drives are SAS

POWER MANAGEMENT

- Dual redundant hot-swappable high-efficiency (90%+) power supplies
- 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 29" x 19" x 5.25" (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

TRUENAS SYSTEMS

TRUENAS Z20

- Hybrid Storage
- Supports single or redundant storage controllers
 - Second storage controller can be added later to upgrade to HA
- Up to 400TB capacity
- 64GB RAM
- Up to 1.2TB flash Read cache
- Read and Write caches optional
- Up to 10x1gbE or 2x10gbE Interfaces per node
- Up to 2x8gb Fibre Channel Interfaces per node
- Maximum power draw*
- Redundant controller: 351 Watts
- Single controller: 226 Watts

TRUENAS Z30

- Hybrid Storage
- Supports single or redundant storage controllers
 - Second storage controller can be added later to upgrade to HA
- Up to 1.11PB capacity
- 128GB RAM
- Up to 2.4TB flash Read Cache
- Write Cache Included
- Up to 10x1gbE or 2x10gbE Interfaces per node
- Up to 2x8gb Fibre Channel Interfaces per node
- Maximum Power Draw*
- Redundant controller: 433 Watts
- Single controller: 286 Watts

TRUENAS Z35

- Hybrid Storage
- Supports single or redundant storage controllers
 - Second storage controller can be added later to upgrade to HA
- Up to 4.8PB capacity
- 256GB RAM
- Up to 4TB flash Read Cache
- Write Cache Included
- Up to 10x1gbE, 4x10gbE or 4x40gbE Interfaces per node
- Up to 2x8gb Fibre Channel Interfaces per node
- Maximum Power Draw*
- Redundant controller: 686 Watts
- Single controller: 466 Watts

TRUENAS Z50 TRUEFLASH

- All-Flash Storage
- High Availability through redundant Storage Controllers
- Up to 300TB capacity
- 256GB RAM
 - RAM used for ultra-fast L1 read/write cache
- Up to 10x1gbE, 4x10gbE or 4x40gbE Interfaces per node
- Up to 4x 8gb Fibre Channel Interfaces per node
- Maximum Power Draw*
- 712 Watts

* 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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