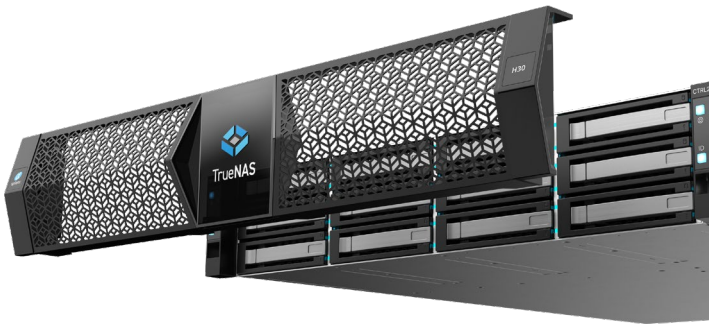
Data Sheet

TrueNAS H-Series

Versatile Hybrid Storage



Features

Scalable Performance & Capacity
The TrueNAS H-Series combines RAM and NVMe caching with HDDs for cost-effective storage, and supports SAS or NVMe SSDs for up to 8 GB/s uncached throughput.

Self-Healing Data Protection
TrueNAS detects and repairs data corruption and bit rot automatically to ensure data integrity.

Intelligent Storage Optimization
TrueNAS uses compression, deduplication, and thin provisioning to maximize efficiency and dynamically adjusts compression based on resource use.

Unlimited Snapshots & Replication
TrueNAS offers unlimited snapshots and replication without extra licensing, with built-in ransomware protection and seamless integration with VMware.

Benefits

High Availability (HA)
The TrueNAS H-Series offers dual-controller configurations to ensure uninterrupted access to critical data during maintenance or hardware failures.

Unified Storage Protocols
With support for file, block, and S3-compatible object protocols, enabling seamless integration with diverse enterprise applications and workflows has never been easier.

Enterprise-Grade Efficiency
Advanced features like data reduction, snapshots, and replication come standard, reducing costs and simplifying data management without additional licensing fees.

Powerful & Efficient Performance

The TrueNAS H-Series delivers the comprehensive feature set of TrueNAS Open Enterprise Storage, including High Availability (HA), at an entry-level price point. Designed for small and medium businesses, the H-Series offers optional dual controllers, hybrid or all-flash configurations, NVMe support in every bay for low-latency workloads, and unified file, block, and object storage across three models: H10, H20, and H30.

This flexibility allows organizations to scale performance and reliability in a compact footprint, making it suitable for IT environments and Edge deployments. The simplified web-based interface and robust feature set, coupled with the absence of additional licensing costs, make the H-Series an accessible yet powerful option for growing businesses.

The modular architecture of the H-Series supports hybrid flash and disk storage pools, conserving power, space, and cooling while handling diverse workloads such as media storage, virtual machine hosting, and video surveillance. Optional HA ensures uninterrupted storage services during maintenance or upgrades, while Intelligent Storage Optimization reduces data by 2.5x or more for maximum efficiency. With built-in data integrity features and the reliability of TrueNAS Enterprise, the H-Series provides businesses with scalable, efficient, and secure storage that is easy to manage and built to perform around the clock.

H-Series Platform

Available Storage Media

- Enterprise Nearline Hard Drives 7200 RPM SAS3:
  - Available from 8 TB to 26 TB
  - SED, FIPS 140-2 options
- Enterprise SSDs:
  - SAS3: from 1.9 TB to 15.36 TB
  - SED and FIPS 140-2 options available
- NVMe SSDs:
  - from 3.8 TB TO 61.4 TB
  - SED and FIPS 140-3 options available

Power Management

- Dual redundant, hot-swappable, high-efficiency (80 Plus Platinum (90%+) power supplies
- Auto-switching 100-240V 50/60Hz input power supported
- Remote power on/off via IPMI (Integrated Platform Management Interface)
- UPS signal response and alerts

Disk Management

- Global hot spares
- Hot-swappable drives
- Corrupted block scan + HDD S.M.A.R.T.
- Hard drive activity/alert LEDs
- Hardware-accelerrated disk encryption (AES-NI)
- Enclosure monitoring and alert LEDs

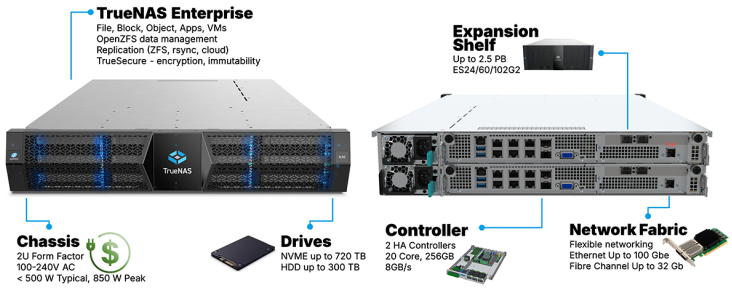
Physical Parameters

- 2U: 12× 3.5/2.5" hard drive bays (front-loading, hot swap)
- Dimensions (l x w x h):
  - 26.8" x 19" x 3.5" | 681 × 483 × 89 mm
- Rackmount Rails:
  - 23" - 35.75" standard
- Operating temperature: 0°C to 40°C
- Non-operating temperature: -30°C to 60°C
- Humidity: 8% to 80% non-condensing
- Empty weight: 43 lbs | 19.5 kg
- Fully-Loaded weight: 67 lbs | 30.4 kg
- RoHS 6/6 compliant CE, FCC Class A, VCCI, UL, BSMI

TrueNAS H-Series Models

	TrueNAS H10	TrueNAS H20	TrueNAS H30
Hybrid or All-Flash Storage		Optional	
Dual Controller (HA)		Optional	
Controller	4 Core (8 Threads)	10 Core (20 Threads)	20 Core (40 Threads)
RAM (Max)	64 - 128 GB	128 - 256 GB	256 GB
Read Cache (Max)	3.2 TB NVMe SSD	2× 3.2 TB NVMe SSD	2× 6.4 TB NVMe SSD
Write Cache (Max)	NVMe SSD	NVMe SSD	2x NVMe SSD
Onboard Networking	4× 1G Base-T	4× 1G Base-T	4× 1G Base-T 2× 10G Base-T
Additional Networking (Optional)	Up to 4× 10/25 GbE	Up to 4× 10/25 GbE or 2× 10/25 GbE + 2× 40/100 GbE	
Fibre Channel	2 × 16 Gb	2 × 16 Gb	2 × 32 Gb
Max Throughput	2 GByte/s	4 GByte/s	8 GByte/s
Max Storage (Raw)	1.8 PB	3 PB	3 PB
***Max Effective Hybrid**	3.6 PB	6 PB	6 PB
Max NVMe Flash (Raw)	180 TB	360 TB	720 TB
***Max Effective NVMe Flash**	360 TB	720 TB	1.5 PB
Expansion Shelves	1x ES24, ES60	1x ES24, ES60, or ES102	1x ES24, ES60, or ES102
Average Power Draw	200 Watts	300 Watts	400 Watts
Peak Power Draw	250 Watts	350 Watts	450 Watts
Heat Output	700 BTU/h	1000 BTU/h	1400 BTU/h

** Maximum effective capacity assumes typical data reduction through compression and deduplication.*



TrueNAS H30 shown above. Specifications may vary based on your selected model and configuration.

TrueNAS Enterprise Specifications

File-Based Protocols

- SMB v1/2/3
- NFSv3, v4
- FTP, WebShare

Block-Based Protocols

- iSCSI, Fibre Channel, and NVMe-oF
- OpenStack Cinder

Object Protocols

- S3-compliant

Directory Services

- Active Directory (AD)
- FreeIPA
- Kerberos
- LDAP, NIS

Networking

- Port Trunking/NIC Teaming
- IEEE 802.3ad link aggregation
- IEEE 802.1q VLAN support

Virtualization

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

File System

- OpenZFS Self-healing file system
- Immutable Snapshots and clones
- Thin and thick provisioning
- Online capacity expansion
- Virtual block devices
- In-line compression and deduplication
- ZFS Stripe, Mirror, RAID-Z1/Z2/Z3, dRAID

High Availability

- Available dual controller support
- Automated rapid failover without data loss
- Virtual IP address migration
- Online software updates

Data Mobility

- Asynchronous file replication using Syncthing
- Data ingest and export to and from any SMB/NFS server

Backup

- Snapshot-based OpenZFS local/remote replication
- Rsync and cloudsync
- Truecloud backup to Storj
- Supports Asigra, Acronis, Veeam, Nakivo, NetBackup, and more

Supported Public Cloud Providers

- iX-Storj
- Amazon S3
- BackBlaze B2 Cloud
- Google Cloud
- Microsoft Azure

TrueSecure Security

- FIPS 140 for Data-at-rest and data-in-flight
- Restricted Admins (Security, Storage, Monitor)
- Auditing of SMB & Admin events (e.g. logins)
- Encrypted Drives and Datasets, KMIP
- NIST 800-209, GPOS STIG

Remote Administration

- Alert notifications via email, AWS-SNS, Hipchat, InfluxDB, Slack, Mattermost, OpsGenie, PagerDuty, and VictorOps
- SSH, Syslog, Netdata
- TrueNAS REST/Websocket APIs and SNMP
- Automated backup of system configuration and state
- Graphical reporting, enclosure management
- Signed updates with the ability to rollback
- Out-of-Band Management
- TrueCommand Management