



Data Sheet

TrueNAS V-Series

Powerful, Scalable, Versatile



Features

Tri-Mode Storage Flexibility

Consolidate storage choices in a single box with 24 front-loading bays supporting SAS HDD and Gen4 NVMe SSDs.

Massive Scalability

Support for up to 20 PB of NVMe storage or up to 40 PB of HDD storage with added expansion shelves.

Next-Gen Performance

Includes 4 rear Gen5 NVMe drive bays for high-velocity data caching.

Extreme Network Velocity

Support for high-speed fabrics up to 400 GbE.

Advanced Data Management

Features Fast Deduplication, block copy, and RDMA support as part of the TrueNAS Enterprise suite.

Benefits

High Availability (HA)

Ensure uninterrupted operations with dual controllers featuring automated rapid failover.

Frictionless Versatility

Easily adapt to changing workloads with tri-mode bays that support both hybrid and all-flash configurations.

Simplified Portfolio

Benefit from a versatile platform and an intuitive interface that requires no sharp learning curve.

Enterprise Efficiency

Advanced features like inline compression, deduplication, snapshots, and replication come standard, reducing management costs.

Powerful Enterprise Storage

The TrueNAS V-Series is engineered for organizations that demand fewer constraints and more simplicity. Designed to support a wide range of workloads—hybrid or flash, big or small—the V-Series integrates seamlessly into any environment without the friction of a sharp learning curve. By consolidating storage choices into a single tri-mode platform, users can easily map their bandwidth and deployment needs to a high-performance system that delivers enterprise flexibility in a familiar, customer-friendly package.

This next-generation platform features 24 front-loading tri-mode bays supporting SAS and Gen4 NVMe drives, alongside four rear Gen5 NVMe bays for high-velocity data caching. With support for up to 20 PB of NVMe storage and high-speed fabrics up to 400 GbE, the V-Series provides massive scalability and extreme network velocity. Dual controllers with automated rapid failover ensure high availability, maintaining uninterrupted operations for mission-critical data.

Efficiency is built into the TrueNAS Enterprise suite, which includes advanced data management tools like fast deduplication, inline compression, and RDMA support. These features, combined with snapshots and replication, come standard to reduce management costs and optimize performance. The V-Series “just fits,” offering a versatile, frictionless platform that adapts to changing workloads while providing the robust, high-performance storage required for modern enterprise environments.

V-Series Platform

Available Storage Media

- Enterprise Nearline Hard Drives
7200 RPM SAS3:
 - Available from 8 TB to 30 TB
 - SED, FIPS 140 options
- NVMe SSDs:
 - from 3.8 TB to 122.8 TB
 - SED and FIPS 140 options available

Power Management

- Dual redundant hot-swappable high-efficiency 80 Plus Titanium (90%+) power supplies
- 200-240V 50/60Hz input Power Required
- 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-accelerated disk encryption (AES-NI)
- Enclosure monitoring and alert LEDs

Physical Parameters

- 4U: 24x 3.5/2.5" hard drive bays (front-loading, hot swap)
- Dimensions (l x w x h):
 - 32 X 19 X 7" | 803 X 483 X 178mm
- Rackmount Rails:
 - 26" - 36.5" | 660mm - 927mm
- Operating temperature: 0°C to 35°C
- Non-operating temperature: 5°C to 45°C
- Humidity: 20% to 80% non-condensing
- Empty weight: 75 lbs | 34 kg
- Fully-loaded weight: 117 lbs | 52 kg
- RoHS 6/6 compliant CE, FCC Class A, UL, BSMI

TrueNAS V-Series Configurations

	Hybrid Cache	Hybrid Flash	All-Flash
Dual Controller (HA)	16 Core (32 Threads)	32 Core (64 Threads)	
RAM (Max)	192 GB	384 - 768 GB	
Read Cache (Max)	12 TB NVMe	24 TB NVMe	DRAM
Max Write Speed	8 GB/s	16 GB/s	30 GB/s
Management Network	1x IPMI Out-of-Band Management Port 1x TrueNAS WebUI Management Port		
Data Network (Max)	4x 100 GbE	4 x 200 GbE or 2x 400 GbE	
Fibre Channel	8 x 16 Gb or 4 x 32 Gb		
System Overview	4U - 80.2 cm deep		
Max System Bandwidth	15 GB/s	30 GB/s	60 GB/s
Max HDD Storage (Raw)	16 PB	40 PB	N/A
Max NVMe Flash (Raw)	4 PB	14 PB	20 PB
*Max Effective Storage	32 PB	80 PB	40 PB
Max Expansion Shelves	6x ES102 or 2x ES24N	14x ES102 or 4x ES24N	6x ES24N
Average Power Draw	600 Watts	800 Watts	
Peak Power Draw	900 Watts	1200 Watts	
Heat Output	3000 BTU/h	4000 BTU/h	

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



TrueNAS V160 shown above. Specifications may vary based on your selected model and configuration.

TrueNAS Enterprise Specifications

File-Based Protocols	Block-Based Protocols	Object Protocols	Directory Services	
<ul style="list-style-type: none"> SMB v1/2/3 NFSv3, v4, RDMA FTP, WebShare 	<ul style="list-style-type: none"> iSCSI, RDMA via iSER NVMe-oF (TCP/RDMA) OpenStack Cinder 	<ul style="list-style-type: none"> TrueNAS Enterprise S3 	<ul style="list-style-type: none"> Active Directory (AD) FreeIPA Kerberos LDAP, NIS 	
Networking	Virtualization	File System	High Availability	Data Mobility
<ul style="list-style-type: none"> Port Trunking/NIC Teaming IEEE 802.3ad link aggregation IEEE 802.1q VLAN support IPv4 and IPv6 	<ul style="list-style-type: none"> VMware and VAAI, ESXi snapshot integration, VM Warn/Stun, vCenter plugin Supports KVM, Citrix XenServer, Microsoft Hyper-V, OpenShift, and other hypervisors Microsoft VSS, ODX, and CSV Integrated Apps, Kubernetes CSI Proxmox Plugin with iSCSI, Snapshot integration Integrated HA Data Hypervisor 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Available dual controller support Automated rapid failover without data loss Virtual IP address migration Online software updates 	<ul style="list-style-type: none"> Asynchronous file replication using Syncing Data ingest and export to and from any SMB/NFS server
Backup	Supported Public Cloud Providers	TrueSecure Security	Remote Administration	
<ul style="list-style-type: none"> Snapshot-based OpenZFS local/remote replication Rsync and cloudsync Truecloud backup to Storj Supports Veeam, HYCU, Asigra, CommVault, NetBackup, and more 	<ul style="list-style-type: none"> iX-Storj Amazon S3 BackBlaze B2 Cloud Google Cloud Microsoft Azure 	<ul style="list-style-type: none"> 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 NIST 800-209, GPOS STIG 	<ul style="list-style-type: none"> 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 and TrueNAS Connect Management 	