![TrueNAS logo]

TrueNAS® F-Series

High Performance NVMe Storage with Open Source Economics

F-series melds industry-leading speed, density, reliability, and scalability for deployments that need maximum productivity and performance. Combining open source economics, hardware with high performance and reliability, and top quality support services, TrueNAS F-Series and TrueNAS SCALE provide enterprise flexibility and scalability with trust and confidence. F-Series Is the perfect solution for Media Workflows, Containerization, or when maximum performance is needed.

The TrueNAS F-Series integrates the flexibility of unified storage, the performance of NVMe flash, the density of a 2U form-factor, the simplified management of a powerful web-based user interface, and white-glove enterprise support. TrueNAS SCALE inherits the rich functionality of TrueNAS CORE, for SCALE-up or SCALE-out Unified storage needs.

The TrueNAS F60 and F100 provide high-performance unified storage and are available with dual-controller, all-flash configurations. Featuring multiple high-speed network interfaces (up to 6× 100 GbE), system memory up to 1 TB, and up to 720 TB capacity, the TrueNAS F-Series is ideally suited for heavy IT storage workloads, including virtualization, media production, high-speed file sharing, and more.

The TrueNAS F-Series modular hardware architecture conserves power, space, and cooling while supporting multiple applications with its ultra-performant NVMe Flash. High Availability (HA) ensures storage services are not disrupted, while Intelligent Storage Optimization maximizes storage efficiency with typical data reduction ratios of greater than 2.5x.

The TrueNAS F-Series delivers high-performance, scalability, data integrity, reliability, and ease-of-management with Open Source economics — for companies that never sleep.

F-Series Features

Performance & Scale Without Compromise: TrueNAS F-Series leverages open source ZFS, industry-leading NVMe flash Technology, and up to six 100 Gb/s network ports per controller, the TrueNAS F-Series is designed to move terabytes at maximum speed. TrueNAS F60, and F100 come equipped with Dual Node High Availability (HA) this provides peace of mind for mission critical operations that need ultimate redundancy. Should a node go down, the redundant node will automatically take its place - a must have technology for mission critical operations that can afford little downtime.

Self-Healing Data Protection: Data integrity is the name of the game, and TrueNAS leaves nothing to chance. In-flight data corruption is automatically detected and repaired before it ever reaches disk. Bit rot and data decay are identified and scrubbed clean. With TrueNAS, your data is always pristine.

Intelligent Storage Optimization: TrueNAS F-Series maximizes storage efficiency by offering compression, space-efficient snapshots, clones, and thin provisioning at no extra cost. TrueNAS Adaptive Compression (TAC) efficiently boosts performance while maximizing 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 any data too inefficient to be worthwhile.

Included Snapshots & Replication: Most storage appliances require additional licenses for advanced features — but not TrueNAS. With configurable retention, restoration, and replication granularity, you can minimize RPO and maximize storage efficiency. Data is automatically protected against unintentional alteration, whether from ransomware or accidental deletion, with minimal storage consumption. Data can be replicated locally, remotely, or to the cloud for backups or disaster recovery.

With TrueNAS, your data protection or disaster recovery policy is simple to implement and maintain.

F-Series Platform

Available Storage Media

- Enterprise Class NVMe Gen4 SSD (Dual Port)
  - Capacities from 7.6 TB to 30 TB
  - SED

Power Management

- Dual redundant, hot-swappable, high-efficiency (80+ Platinum) power supplies
- Auto-switching 200-240V 50/60Hz input power (High-line only)
- IPMI Remote power on/off

Disk Management

- Global hot spares
- Hot-swappable drives
- Corrupted block scan
- Drive activity/alert LEDs
- Local and remote (KMIP) key management
- Enclosure monitoring and alerts

Physical Parameters

- 2U: 24× 2.5" NVMe SSD drive bays (front-loading, hot swap)
- Dimensions (l x w x h):
  - 27" x 19" x 3.5" │ 686 × 483 × 89 mm
- Rackmount rails 27" - 37"
- Operating temperature: 5°C to 35°C
- Non-operating temperature: 5°C to -35°C
- Humidity: 5% to 80% non-condensing
- Empty weight: 43 lbs │ 19.5 kg
- Fully-Loaded weight: 56.2 lbs │25.4kg
- RoHS 6/6 compliant, CE, FCC Class A, UL, TÜV, BSMI, KC, VCC

TrueNAS F-Series Models

	TrueNAS F60	TrueNAS F100
All-Flash Storage	Yes	Yes
Dual Controller (HA)	Included	Included
Controller	32 Cores / 64 Threads	48 Cores / 96 Threads
Read Cache (Max)	512 GB DRAM read cache	
Write Cache	Distributed Write Log	
Networking	Up to 4× 40/100 GbE (optical)	Up to 6× 40/100 GbE (optical)
Management IO	2× 10GBase -T (standard) 1x IPMI Out-of-Band Management Port, 1x WebUI Port	2× 10GBase -T (standard) 1x IPMI Out-of-Band Management PortBMC, 1x WebUI Port
Max Storage (2024)	2.1 PB	3.5 PB
Max Expansion Shelves	2 (Available in 2024)	4 (Available in 2024)
Max Power Draw (HA)	996 Watts	1152 Watts
Typical Power Draw (HA)	600 Watts	800 Watts
Max Heat Output	3398 BTU/h	3931 BTU/h

TrueNAS Enterprise Specifications

File-Based Protocols

- SMB v1/2/3
- NFSv3, v4
- AFP, FTP, WebDAV

Block-Based Protocols

- iSCSI
- OpenStack Cinder

Object Protocols

- S3-compliant
- Minio Management

Directory Services

- Active Directory (AD)
- 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, bhyve, and other common hypervisors
- Microsoft VSS, ODX, and CSV
- Integrated Jails and Plugins

File System

- OpenZFS Self-healing file system
- 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

High Availability

- Dual controller support
- Automated failover without data loss
- Virtual IP address migration
- Online software updates

Backup

- Snapshot-based OpenZFS local/remote replication
- Rsync and cloudsync
- Backup data to public clouds
- Supports Asigra, Acronis, Veeam, Nakivo, NetBackup, and more

Supported Public Cloud Providers

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

Remote Administration

- Alert notifications via email, AWS-SNS, Hipchat, InfluxDB, Slack, Mattermost, OpsGenie, PagerDuty, and VictorOps
- SSH, Syslog
- Automated backup of system configuration and state
- Graphical reporting, enclosure management
- Signed updates with the ability to rollback
- IPMI Remote Management with iKVM HTML5
- REST APIs and SNMP
- TrueCommand Single Pane of Glass