

# FlashStation FS3017



Designed for lightning-fast computing environments, Synology FlashStation FS3017 is a highly reliable, cost-efficient, and ultra-high performance all-flash storage solution with comprehensive business applications for enterprise users. Synology FlashStation FS3017 simplifies data management and optimizes virtualization environments, with minimal time investment in setup and maintenance. Synology FS3017 is backed with Synology's 5-year limited warranty.

## Astonishing Performance

FS3017 delivers over **200,000 4K Random Write IOPS<sup>1</sup>**, making it ideal for big data analysis, video post-productions, virtualization and database applications, which require ultra-high performance and low latency. FS3017 comes with **dual built-in 10GBase-T** ports and supports **optional 10GbE / 25GbE / 40GbE** NICs with **iSCSI over RDMA<sup>2</sup>**, allowing more flexibilities for network configurations.

## Cost Effective Unified Storage

Synology FS3017 is compatible to major SAS / SATA SSD brands to avoid vendor lock-in and provides a competitive TCO at USD \$0.65 per GB<sup>3</sup> on raw capacity. In addition, FS3017 is a unified storage server supporting iSCSI protocol and file sharing services, which provides the cost savings and simplicity of consolidating storage over an existing network while providing the flexibility required by virtual server environments.

## Comprehensive Data Protection

The built-in **Snapshot Replication** application provides schedulable, near-instantaneous data protection. It replicates **65,000** backup copies to offsite servers, bringing near-instantaneous data protection and ensuring data in shared folder or virtual machines in iSCSI LUNs remain available in the event of disaster.

With block-level incremental backup and cross-version deduplication, Synology **Hyper Backup** provides multi-version backup with optimized storage space utilization and allows multiple backup destinations to local shared folders, external hard drives, network shared folders, rsync server, and public cloud services.

## Highlights

- USD \$0.65 per GB on raw capacity<sup>3</sup>
- 200,000 4K Random Write IOPS<sup>1</sup>, ultra-high performance with low latency
- Dual Intel Xeon 6-core CPU and 64GB DDR4 ECC RDIMM, expandable up to 512GB
- Dual onboard 10GBase-T ports, capable of installing optional 10GbE / 25GbE / 40GbE NICs with iSCSI over RDMA
- Complete virtualization solution for VMware, Windows Hyper-V, Citrix and Openstack
- Advanced Btrfs file system offering 65,000 system-wide snapshots and 1,024 snapshots per shared folder
- Backed with Synology's 5-year limited warranty & Synology Replacement Service (SRS)

## Virtualization Ready

FS3017 provides seamless storage solutions for virtualization environments, including **VMware, Citrix, Hyper-V, and OpenStack**. With **VMware vSphere 6 and VAAI** integration certified, FS3017 helps offload specific storage operations and optimizes computing power for unparalleled performance and efficiency in VMware environments. As the centralized storage of a virtual environment, FS3017 enables virtual machine migration, allowing movement from server to server whilst eliminating service downtime and disruption to user. **Windows Offloaded Data Transfer (ODX)** and **Synology Advanced LUN** support greatly improves the efficiency on massive data transfer and migration. With **OpenStack** support, FS3017 can be used as a block-based storage component for servers complying with the **Cinder API**.

## Comprehensive Business Applications

Powered by the innovative Synology **DiskStation Manager (DSM)**, FS3017 comes fully-equipped with applications and features designed specifically for large-scale business:

- **Windows® AD and LDAP** support allowing easy integration with existing business directory services without recreating user accounts.
- **Windows ACL** support provides fine-grained access control and efficient privilege settings, allowing FS3017 to fit seamlessly into current infrastructure.
- **Application privileges** controls access to applications and packages based on individual account, user group, or IP address.

## Reliability and System Availability

System reliability is of paramount importance to businesses which depend upon their commercial servers every day. FS3017 responds to these concerns with wide-ranging availability and redundancy features:

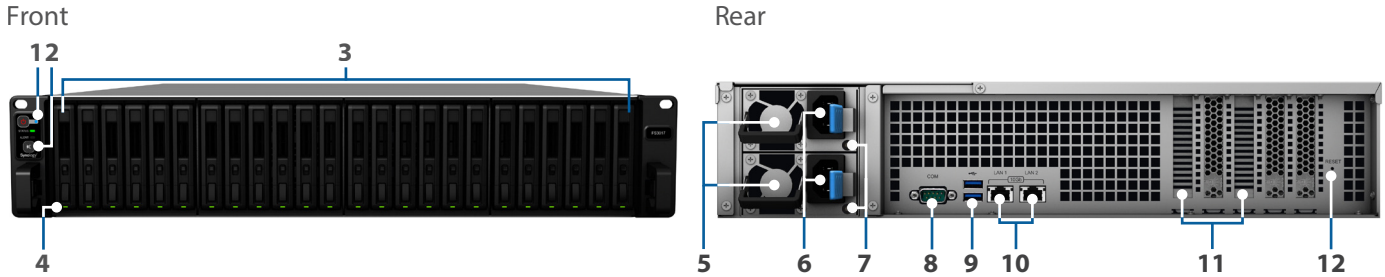
- Synology **RAID F1** optimizes RAID volume integrity and extends SSD lifespan.
- Synology **High Availability** ensures seamless transition between clustered servers in the event of one node failing with minimal impact to applications.
- **Redundant power supplies, system fans, and multiple network ports with failover support** ensure maximum continuous service uptime.
- **DDR4 ECC RDIMM** detects and corrects errors during data transmission.
- The **tool-free system fan design** allows hot swapping and simple exchanging of malfunctioned system fans. Optional **Synology RKS1317 rail kit** provides fast and easy system installation and maintenance.



### Mainstream SSD Support

Synology FS3017 comes with 24 x 2.5" SAS / SATA interfaces and is compatible to major SSD brands, preventing vendor lock-in.

## Hardware Overview



1	Power button and indicator	2	Beep off button	3	Drive tray	4	Drive status indicator
5	PSU fan	6	Power Port	7	PSU indicator	8	Console port
9	USB 3.0 port	10	10GbE RJ-45 port	11	PCIe 3.0 slot	12	Reset button

## Technical Specifications

### Hardware

CPU	2 x Intel Xeon E5-2620 six-core 2.4GHz
Hardware encryption engine	Yes (AES-NI)
Memory	64 GB DDR4-2133 ECC RDIMM, expandable up to 512 GB
Compatible drive type	24 x 2.5" SAS SSD / HDD or SATA SSD
External ports	2 x USB 3.0
Size (HxWxD)	<ul style="list-style-type: none"> <li>88 x 430.5 x 692 mm</li> <li>88 x 482 x 724 mm (with server ears)</li> </ul>
Weight	17.13 kg
LAN	2 x 10GbE (RJ45)
PCIe 3.0 slot	<ul style="list-style-type: none"> <li>x16 slot x 1 (16-lane)</li> <li>x8 slot x 1 (8-lane)</li> <li>10GbE / 25GbE / 40GbE network interface cards support</li> </ul>
Scheduled power on / off	Yes
System fan	4 (80 x 80 x 32 mm)
AC input power voltage	100V to 240V AC
Power frequency	47 to 63Hz, single phase
Operating temperature	5°C to 35°C (40°F - 95°F)
Storage temperature	-20°C to 60°C (-5°F to 140°F)
Relative humidity	5% to 95% RH
Maximum operating altitude	5,000 m (16,400 ft)

### General

Networking protocol	CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)
File system	<ul style="list-style-type: none"> <li>Internal: Btrfs, ext4</li> <li>External: Btrfs, ext4, ext3, FAT, NTFS, HFS+, exFAT*</li> </ul>
Storage management	Maximum single volume size: 108TB, 200TB (RAID 5 or RAID 6 groups only); Maximum internal volumes: 1024; Maximum iSCSI Targets: 128; Maximum iSCSI LUNs: 512; iSCSI LUN clone / snapshot support
Supported RAID type	Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, RAID 10, RAID F1
File sharing capability	Maximum user account: 16000; Maximum user group: 512; Maximum shared folder: 512; Maximum concurrent CIFS / AFP / FTP connections: 13000
Privilege	Windows Access Control List (ACL)
Virtualization	VMware vSphere® 6, Microsoft Hyper-V®, Citrix®, OpenStack®
Directory service	Windows® AD integration: Domain users login via Samba (CIFS) / AFP / FTP / File Station, LDAP integration
Security	FTP over SSL / TLS, IP auto-block, firewall, encrypted network backup over Rsync, HTTPS connection

Utilities	Synology Web Assistant, Cloud Station Drive, Cloud Station Backup, Cloud Sync Decryption Tool, Evidence Integrity Authenticator, Snapshot Manager for VMware, Snapshot Manager for Windows, NFS Plug-in for VMware VAAI
Supported clients	Windows 7 onward, Mac OS X® 10.10 onward
Supported browsers	Chrome®, Firefox®, Internet Explorer® 9 onwards, Safari® 8 onwards; Safari (iOS 7 onwards), Chrome (Android™ 4.0 onwards) on tablets
Language	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svensk, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, 日本語, 한국어, 繁體中文, 简体中文

## Applications

File Station	Virtual drive, remote folder, Windows ACL editor, compress / extract archived files, bandwidth control for specific users or groups, creating sharing links, transfer logs
Backup solutions	Network backup; local backup; desktop backup; configuration backup; OS X Time Machine; backup data to public cloud; shared folder sync - maximum task number: 32
FTP Server	Bandwidth control for TCP connections, custom FTP passive port range, anonymous FTP, FTP SSL / TLS and SFTP protocol, boot over the network with TFTP and PXE support, transfer logs
High Availability Manager	Combines two FS3017 into one high-availability cluster
Security Advisor	Malware detection / removal, user account / password, network, system-related security scan
iOS / Android™ applications	DS cloud, DS file, DS finder, DS cam, DS note, MailPlus
Windows Phone® applications	DS file, DS finder

## Add-on Packages

Antivirus Essential	Full system scan, scheduled scan, white list customization, virus definition auto update
Cloud Station Server	Maximum concurrent file transfers: 16,000, retain historical and deleted file versions
Cloud Sync	One or two-way synchronization with public cloud storage providers including Amazon Cloud Drive, Amazon S3-compatible storage, Baiduyun, Box, Dropbox, Google Cloud Storage, Google Drive, hubiC, MegaFon Disk, Microsoft OneDrive, OpenStack Swift-compatible storage, WebDAV servers, Yandex Disk
Log Center	SSL connection, log rotation: 6 months, 1 year, 2 years, 3 years, email notification
MailPlus	Intuitive webmail interface for MailPlus Server; customizable mail labels, filters and user interface
MailPlus Server	Secure, reliable, and private mail solution with High-availability, load balancing, security and filtering design (Includes 5 free email account licenses, additional accounts require the purchasing of additional licenses)
Note Station	Rich-text note organization and versioning, encryption, sharing, media embedding and attachments
Storage Analyzer	Volume and quota usage, total size of files, volume usage and trends based on past usage, size of shared folders, largest / most / least frequently modified files
Surveillance Station	Maximum IP camera: 100 (total of 3,000 FPS at 720p, H.264) (Includes two free camera licenses, additional cameras require the purchasing of additional licenses)
VPN Server	Maximum connections: 30; supported VPN protocol: PPTP, OpenVPN™, L2TP
Web Station	Virtual host (up to 30 websites), PHP / MariaDB®, 3rd-party applications support
Other packages	Additional 3rd-party packages are available on Package Center

## Environment and Packaging

Environment safety	RoHS compliant
Package content	<ul style="list-style-type: none"> <li>FS3017 main unit</li> <li>Quick Installation Guide</li> <li>Accessory pack</li> <li>2 x AC power cord</li> </ul>
Optional accessories	<ul style="list-style-type: none"> <li>Camera License Pack, VS360HD</li> <li>16GB / 32GB DDR4-2133 ECC RDIMM (RAMRG2133DDR4-16G / RAMRG2133DDR4-32G)</li> <li>RKS1317-Rail Kit Sliding</li> <li>E10G17-F2 / E10G15-F1 10Gbps Ethernet adapters</li> </ul>
Warranty	5 years

\*Model specifications are subject to change without notice. Please refer to [www.synology.com](http://www.synology.com) for the latest information.

- Performance figures may vary depending on environment, usage and configuration.
- iSCSI over RDMA support vary depending on the NICs installed. Please refer to [www.synology.com](http://www.synology.com) for the latest NIC compatibility list.
- Cost per gigabyte estimated with 1TB Micron M600 SSDs based on retail pricing at multiple vendors in September 2016.
- exFAT Access is purchased separately in Package Center

## SYNOLOGY INC.

Synology is dedicated to taking full advantage of the latest technologies to bring businesses and home users reliable and affordable ways to centralize data storage, simplify data backup, share and sync files across different platforms, and access data on-the-go. Synology aims to deliver products with forward-thinking features and the best in class customer services.

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FS3017-2016-ENU-REV001

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