# **Syno**logy\*

# FlashStation

# FS3410



# Dependable Solid-State Storage for Businesses and Production Studios

Synology FlashStation FS3410 is a 24-bay all-flash server engineered to boost the responsiveness of I/O-intensive applications. Lightning-fast data transfer speeds, comprehensive connectivity options, and built-in high-availability safeguards make it the ideal platform to support latency-sensitive applications for which data and service uptime is of paramount importance. Powered by Synology DiskStation Manager (DSM), the FS3410 comes with reliable and easy-to-set-up backup, file sharing and synchronization, and virtualization solutions.

# Highlights

#### · Powerful Performance

Over 356,500/129,400 iSCSI 4K random read/write IOPS to handle intensive I/O operations efficiently<sup>1</sup>

#### · Flexible Virtualization

Certified support for VMware® vSphere™, Microsoft® Hyper-V®, Citrix® XenServer™, and OpenStack with Kubernetes CSI driver

#### · Comprehensive Connectivity

Built-in Gigabit and 10GbE ports for fast connectivity out of the box, with 25/40GbE upgrade available through network interface cards<sup>2</sup>

#### . Uptime Protection

Hardware and software solutions for high availability and shorter recovery time objectives

#### · Long-Term Support

Backed by Synology's 5-year limited warranty<sup>a</sup>



#### Next-Generation File System

Btrfs is a modern file system designed to safeguard data integrity through metadata mirroring, file selfhealing, and fast snapshot replication.



#### Upgrade Your Aging SAN

Synology systems can integrate with your virtualization platforms and easily replace aging SAN storage arrays in any organization's existing infrastructure.

## All-Flash Storage for Businesses and Creative Studios

The FS3410 is a cost-effective solution for centralized and distributed business infrastructure operating file serving applications, VM storage and backup, and mission-critical database services. Its high sustained throughput makes it also suitable for production studios tackling projects requiring direct and latency-free editing of large video assets.

- Over 356,500/129,400 iSCSI 4K random read/write IOPS and 6,950/3,400 MB/s sequential read/write performance support both I/O-intensive applications and large file transfers<sup>1</sup>
- Fast connectivity options right out of the box with four 1GbE RJ-45 ports and dual 10GbE, upgradable to 25/40GbE through PCle 3.0 expansion cards<sup>2</sup>
- Dedicated out-of-band management (OOB) port helps system administrators reduce maintenance and troubleshooting efforts
- Redundant power supply units and system fans coupled with network ports that support automatic failover prevent single points of hardware failure
- Volume-wide deduplication optimizes VM and container storage by removing duplicate data on a schedule or on demand

# Certified Virtual Machine and Container Storage

Deploy and facilitate storage operations in virtualization environments with full certification for VMware® vSphere™, Microsoft® Hyper-V®, Citrix® XenServer™, and OpenStack. A Kubernetes CSI driver provides integrated volume management.

The FS3410 is ideal as **virtual machine storage**, but can also serve as an alternative **VM host** and run **Docker** containers.

- Synology Virtual Machine Manager is a hosted hypervisor for VMs running Windows®, Linux®, or virtualized versions of Synology DSM with recovery mechanisms that ensure data protection on each VM<sup>4</sup>
- Manage storage directly from your hypervisor with Synology Storage Console for VMware or Windows platforms
- Offload storage operations and speed up data transfer using VMware VAAI integration and Windows ODX
- Save significant storage space with full flash volume deduplication when used together with Synology SSDs
- Protect full VMware® vSphere™ and Microsoft® Hyper-V® deployments with agentless virtual machine backup in Synology Active Backup for Business





#### Synology Backup Solutions

DSM backup solutions are designed to be lowmaintenance and efficient, delivering low RPO and RTO targets and offering a large selection of backup destinations for a variety of workloads.



#### Synology Productivity Suite

A powerful and secure private cloud solution that lets teams collaborate, sync files, and communicate with others anytime, anywhere.

## Reliable Data and Uptime Protection Tools

Built-in solutions help maintain high system availability and facilitate fast recovery if a disaster or major outage occurs.

- Synology High Availability provides fast failover between two identical FS3410 units to keep services online when disaster strikes
- Snapshot Replication provides schedulable, near-instantaneous data protection with version control, ensuring that documents in shared folders and LUNs remain safe and available<sup>5</sup>
- Hyper Backup protects your NAS by backing up data and configurations to multiple destinations with efficiency delivered by built-in deduplication, integrity checks, compression, and versioning
- C2 Storage for Hyper Backup offers a dedicated and secure public cloud destination for Synology NAS backup data<sup>6</sup>

#### Seamless Collaboration Between Distributed Teams

Synology's **productivity suite** provides a private cloud solution for on-site and remote workers to concurrently edit documents, share files, manage emails, send instant messages, and more.

By leveraging private cloud infrastructure, businesses can ensure complete data ownership and multi-layered security.

- Synology Office lets multiple users edit, comment on, and share files together using Synology Documents, Spreadsheets, and Slides
- Synology Drive is a private cloud file management solution that supports remote data access, synchronization, on-demand file restoration, and backup
- Synology Chat brings teams together with one-on-one chats, group chats, and encrypted private channels over multiple platforms
- Synology MailPlus<sup>7</sup> provides a secure, reliable, and private email server
- Synology Calendar helps teams keep track of what is most important with convenient calendar sharing and scheduling
- Synology Hybrid Share combines reliable on-premises storage and efficient syncing of shared folders in the cloud to enable seamless cross-site synchronization and local access at LAN speed<sup>6</sup>





#### Synology Has You Covered

Keep your business running with the technical support services included in Synology's 5-year limited warranty<sup>2</sup>

# Backed by Synology's 5-Year Limited Warranty

Maximize your return on investment with the comprehensive hardware replacement and premium technical support services offered under Synology's 5-year limited hardware warranty.<sup>2</sup>

Choose **Synology SSDs** to populate your FlashStation and deal with a single vendor for warranty and support. Benefit from stable performance over time and low-latency data access thanks to rigorous testing and integration.



# Hardware Overview



1	Power Button and Indicator	2	Status Indicator	3	Alert Indicator	4	Mute Button
5	Drive Status Indicators	6	Drive Trays	7	Rail Kit Release Tabs	8	PSU Fans
9	Power Ports	10	PSU Indicators	11	Console Port	12	PCI Express Expansion Slots
13	1GbE RJ-45 Ports	14	10GbE RJ-45 Ports	15	USB 3.2 Gen 1 Ports	16	Management Port
17	Reset Button						

# **Technical Specifications**

#### Hardware

CPU	Intel Xeon D-1541 8-core (16-thread) 2.1 GHz, max boost clock up to 2.7 GHz
Hardware encryption	AES-NI
Memory	16 GB DDR4 ECC RDIMM (expandable up to 128 GB)
Compatible drive types	<ul> <li>24 x 2.5" SATA SSD (drives not included)</li> <li>Synology only guarantees full functionality, reliability, and performance for Synology drives listed on the compatibility list. The use of non-validated components may limit certain functionality and result in data loss and system instability<sup>8</sup></li> </ul>
Hot swappable drives	Yes
External ports	2 x USB 3.2 Gen 1 ports
Form factor	Rackmount 2U
Size (HxWxD)	<ul> <li>88 x 430.5 x 692 mm</li> <li>88 x 482 x 724 mm (with server handles)</li> </ul>
Weight	15 kg
LAN ports	<ul> <li>1 x 1GbE RJ-45 (out-of-band management and data transfer)</li> <li>4 x 1GbE RJ-45 (data transfer)</li> <li>2 x 10GbE RJ-45</li> </ul>
Wake on LAN/WAN	Yes (only on 1GbE ports)
PCle expansion	<ul> <li>2 x 8 width slot, Gen 3.0 x8 lanes</li> <li>Supports network interface cards<sup>2</sup></li> </ul>
Scheduled power on/off	Yes
System fans	4 x (80 x 80 x 38 mm)
AC input power voltage	100 V to 240 V AC
Power frequency	50/60 Hz, single phase
Operating environment	<ul> <li>Temperature: 0°C to 35°C (32°F to 95°F)</li> <li>Relative humidity: 8% to 80% RH</li> </ul>
Storage environment	<ul> <li>Temperature: -20°C to 60°C (-5°F to 140°F)</li> <li>Relative humidity: 5% to 95% RH</li> </ul>
Maximum operating altitude	5,000 m (16,400 ft)



## **General DSM Specifications**

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Networking protocols	SMB, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, and VPN (PPTP, OpenVPN™, L2TP)
File systems	Internal: Btrfs, ext4     External: Btrfs, ext4, ext3, FAT32, NTFS, HFS+, exFAT
Supported RAID types	Synology RAID F1, Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, and RAID 10
Storage management	<ul> <li>Max. single volume size: 108 TB/200 TB/1 PB<sup>5, 9</sup></li> <li>Max. number of system snapshots: 65,536<sup>10</sup></li> <li>Max. number of internal volumes: 256</li> </ul>
SSD cache	Read/write cache support     2.5" SATA SSD support
Out-of-band (OOB) management	Power on, shutdown, force shutdown, force reboot, reset system, view DSM logs, monitor DSM logs, view OOB log
File sharing capabilities	<ul> <li>Max. number of local user accounts: 16,000</li> <li>Max. number of local groups: 512</li> <li>Max. number of shared folders: 512</li> <li>Max. number of concurrent SMB/NFS/AFP/FTP connections: 4,000 (10,000 with RAM expansion)<sup>11</sup></li> </ul>
Privileges	Windows® Access Control List (ACL) and application privileges
Directory services	Connects with Windows® AD/LDAP servers enabling domain users to login via SMB/NFS/AFP/FTP/File Station using their existing credentials
/irtualization	VMware® vSphere™, Microsoft® Hyper-V®, Citrix® XenServer™, OpenStack, and Kubernetes
Security	Firewall, shared folder encryption, SMB encryption, FTP over SSL/TLS, SFTP, rsync over SSH, login auto block, Let's Encrypt support, and HTTPS (customizable cipher suite)
Supported browsers	Google Chrome®, Firefox®, Microsoft Edge®, Safari® 13 and later, and Safari (iOS 13.0 and later) on iPad, Chrome (Android™ 11.0 and later) on tablets
Interface languages	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svensk, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, ภาษาไทย, 日本語, 한국어, 繁體中文, 简体中文

# **Packages and Applications**

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File Server & Synchroniza	tion
Drive	Synchronizes files across Windows®, macOS®, Linux®, Android™ and iOS. The built-in cross-platform portal allows access to data anytime and anywhere  • Max. number of hosted files: 50,000,000  • Max. number of concurrent connections for PC dients: 2,000
File Station	Provides virtual drives, remote folders, Windows® ACL editor, compression/extraction of archived files, bandwidth control for specific users/groups, creation of sharing links, and transfer logs
Hybrid Share <sup>6</sup>	Efficiently synchronizes files across sites by keeping shared data on Synology C2 Storage and streaming files to Synology NAS worldwide on request. Frequently requested files are cached at each site for low-latency access
FTP Server	Supports bandwidth control for TCP connections, custom FTP passive port ranges, anonymous FTP, FTP over TLS/SSL and SFTP protocols, network booting with TFTP and PXE support, and transfer logs
Presto File Server <sup>12</sup>	Enables high-speed data transfer over WAN between Synology NAS and desktop platforms through the exclusive SITA technology
Cloud Sync	Offers one or two-way synchronization with public cloud storage providers including Alibaba Cloud OSS, Backblaze B2, Baidu Cloud, Box, Dropbox, Google Cloud Storage, Google Drive, hubiC, MegaDisk, Microsoft OneDrive, OpenStack Swift-compatible storage, Tencent COS, WebDAV servers and Yandex Disk
Universal Search	Search through files, metadata, and more on your NAS. Integration with Windows Search and macOS Spotlight makes it easy to find files
Migration Assistant	Migrates data, system setting, and applications seamlessly from one Synology NAS to another to ensure maximum service availability
SAN Storage & Virtualizat	
SAN Manager	<ul> <li>Max. number of iSCSI targets: 256</li> <li>Max. number of LUNs: 512</li> <li>LUN Clone/Snapshot, Windows ODX support</li> </ul>
Virtual Machine Manager⁴	Supports running Windows®, Linux®, and Virtual DSM-based virtual machines on Synology NAS
Data Protection & Backup	Solution
Hyper Backup	Supports local backup, network backup, and data backup to other servers and public clouds, including C2 Storage



Backup tools	<ul> <li>DSM configuration backup, macOS® Time Machine® support, Synology Drive Client desktop application</li> <li>Shared folder sync supports a maximum of 32 tasks</li> </ul>
Snapshot Replication	<ul> <li>Max. number of snapshots for shared folders: 1,024</li> <li>Max. number of replications: 64</li> </ul>
Synology High Availability	Reduces service downtime by combining two identical NAS into a high-availability cluster
Active Backup for Business	An all-in-one backup solution designed for heterogeneous business IT environments. It enables IT admins to remotely manage and protect PCs, servers, Synology systems, and VMs from one centralized console
Active Backup for Google Workspace	Supports backup and restoration of Google Workspace My Drive, Team Drive, Gmail, Contacts, and Calendar
Active Backup for Microsoft 365	Supports backup and restoration of Microsoft 365 OneDrive for Business, Outlook, Contacts, and Calendar
Productivity & Collaboration	
Collaboration tools	Collaborate with instant messaging service Synology Chat, online documents editor Synology Office, and scheduling assistant Synology Calendar  • Max. number of concurrent users for Chat: 500  • Max. number of users for Office: 3,400  • Calendar supports CalDAV and access via mobile devices
Note Station	$A \ note \ taking \ platform \ that \ supports \ rich \ text, \ note \ organization \ and \ versioning, \ encryption, \ sharing, \ media \ embedding, \ and \ attachments$
Synology MailPlus Server <sup>7</sup>	A secure, reliable, and private mail solution featuring high-availability, load balancing, security, and filtering options
Synology MailPlus	An intuitive webmail interface for Synology MailPlus Server with configurable mail labels, filters, and user interface
Surveillance	
Surveillance Station <sup>13</sup>	Maximum IP cameras: 100, for a total of 3,000 FPS at 720p (H.264)
Management & Administrat	tion
Synology Directory Server	Provides a flexible and cost-effective domain controller solution
Central Management System	Provides a single interface to manage and monitor multiple Synology NAS
VPN Server	<ul> <li>Maximum connections: 60</li> <li>Supported VPN protocols: PPTP, OpenVPN™, L2TP/IPSec</li> </ul>
Active Insight	Monitor health statistics, login activity, and backup statuses for your Synology servers worldwide, and receive notifications and advice from our centralized cloud-hosted management platform
Storage Analyzer	Displays volume and quota usage, total size of files, volume usage and trends based on past usage, size of shared folders, large files, most recently modified files, and least recently accessed files
Antivirus Essential	Provides full system scans, scheduled scans, white list customization, and auto-update of virus definitions
Web Station	Enables hosting for up to 30 websites with support for PHP/Maria DB® and 3rd-party applications
Other packages	DNS Server, RADIUS Server, and Log Center
Others	
iOS/Android™ applications	Synology Drive, Synology Mail Plus, Synology Secure SignIn, Synology Chat, Synology LiveCam, Synology Active Insight, DS cam, DS file, DS finder, and DS note
Other packages	Additional 3rd-party packages are available in the Package Center
Environment and Packagir	ng
Environment safety	RoHS compliant
Package contents	<ul> <li>1 x FS3410 main unit</li> <li>1 x Quick Installation Guide</li> <li>1 x Accessory pack</li> <li>2 x AC power cord</li> </ul>
Optional accessories <sup>14</sup>	DDR4 ECC RDIMM: D4ER01-16G / D4ER01-32G  10GbE Network Interface Card: E10G21-F2 / E10G18-T2 / E10G18-T1  25GbE Network Interface Card: E25G21-F2  2.5" SATA SSD: SAT5200 / SAT5210  MailPlus License Pack?  Surveillance Device License Pack <sup>13</sup> Virtual DSM License Pack4  Sliding Rail Kit: RKS-02
Warranty	5 years <sup>2</sup>



Note: Specifications are subject to change without notice. Please refer to the model's specifications page for the most up to date information.

- 1. Performance figures are obtained through internal testing by Synology. Actual performance may vary depending on the testing environment, usage, and configuration. See **performance charts** for more information.
- 2. For the most up-to-date list of compatible NICs, please check our compatibility list.
- 3. The warranty period starts from the date of purchase as stated on your purchase receipt. Visit https://www.synology.com/company/legal/warranty for more information.
- 4. Certain advanced features require Virtual Machine Manager Pro. One Virtual DSM license is included. Additional Virtual DSM instances require the purchase of Virtual DSM Licenses.
- 5. While using Peta Volume, certain features will be restricted, including Snapshot Replication, SSD cache, and encryption/compression options for shared folders. Please refer to this article for the detailed limitations.
- 6. C2 Storage for Hyper Backup and Hybrid Share requires purchase of an eligible annual or monthly subscription. A free trial is available for each newly registered device.
- 7. Five MailPlus email accounts are included. Additional email accounts can be added with the purchase of Synology MailPlus License Packs. Learn more
- 8. Check our compatibility list for supported drives.
- 9. Volumes up to 108 TB are supported with the default installed memory. Volumes of up to 200 TB can be created if the memory is upgraded to 32 GB. Volumes of up to 1 PB can be created if the memory is upgraded to 64 GB. Learn more about maximum volume sizes and Btrfs (Peta Volume) file system.
- 10. System snapshots include snapshots taken by SAN Manager, Snapshot Replication, and Virtual Machine Manager. Availability of these packages varies by model and whether Btrfs (Peta Volume) file system is used.
- 11. Maximum concurrent connections can be increased to 10,000 with maximum installed memory of 128 GB RAM.
- 12. Presto File Server license can be purchased separately through the application.
- 13. Surveillance Station includes two free licenses. Connecting more cameras and devices requires additional licenses, Learn more
- 14. Please refer to our compatibility list for the latest optional accessories list,

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