FlashStation FS6400

Brand: Synology
Product Code: FS6400
Availability: 10
Weight: 17.26kg
Dimensions: 88.00mm x 482.00mm x 724.00mm
Call for Price:

Short Description

Synology 24 Bay NAS FlashStation FS6400 (Diskless)

Description

Uncompromising performance

Synology FlashStation FS6400 is a 2U rackmount server designed for I/O-intensive and latency-sensitive tasks, ideal for multimedia post-production, virtual machines, online transaction processing, or database applications.

CPU

Dual Intel® Xeon® Silver 8-core with NUMA

Memory

DDR4 ECC RDIMM, up to 512GB

High Performance

Over 240,000 iSCSI 4K random write IOPS

Scalability

Up to 72 drives with FX2421

Fast and reliable networking

With multi-LAN design, FS6400 is capable of performing Link Aggregation and failover. For environments requiring a higher speed, two optional Ethernet add-in cards can be installed on PCIe 3.0 slots to provide fast data transmission.

Complete iSCSI and virtualization solutions

Synology iSCSI storage supports most virtualization solutions such as VMware vSphere, Microsoft Hyper-V, Citrix Xen Server, and OpenStack Cinder to enhance work efficiency. You can run and manage multiple virtual machines on Windows, Linux, or DSM using Virtual Machine Manager.

Windows
Server
2022

Certified

Next-generation file system for better data protection

The Btrfs file system introduces advanced storage technologies and optimized snapshots to prevent data corruption and reduce maintenance overheads. It offers flexible, efficient data protection and recovery tools while ensuring high-level data integrity.
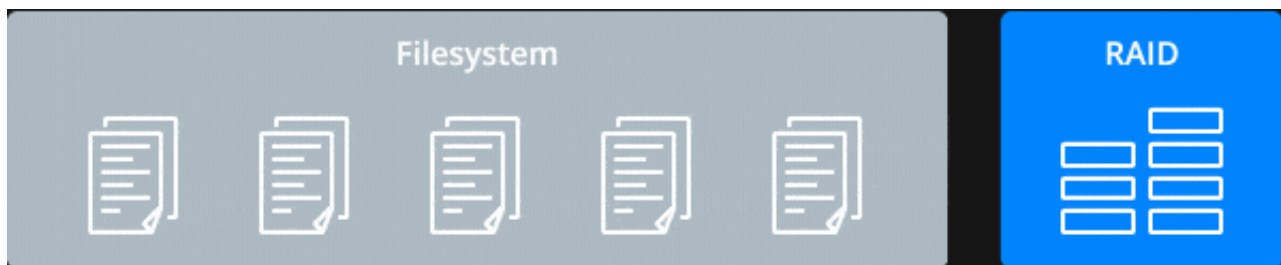
Flexible Shared Folder/User Quota System provides comprehensive quota control on all

user accounts and shared folders

Snapshot Replication provides schedulable and storage capacity-saving data protection with 1,024 shared folder backups and 65,000 system-wide snapshots

File- or folder-level data restoration accelerates data recovery and provides more flexibility for businesses

Automatic file self-healing detects and recovers corrupted files without user intervention

RAID F1

Due to the peculiarities of SSD and RAID technology, a common challenge lies in how to prevent all of the drives from failing at the same time because of the evenly distributed workload. RAID F1 alleviates this problem with a specially designed algorithm to

unevenly distribute workload to drives, enhancing the resilience of the storage pool and ensuring your data remains safe.
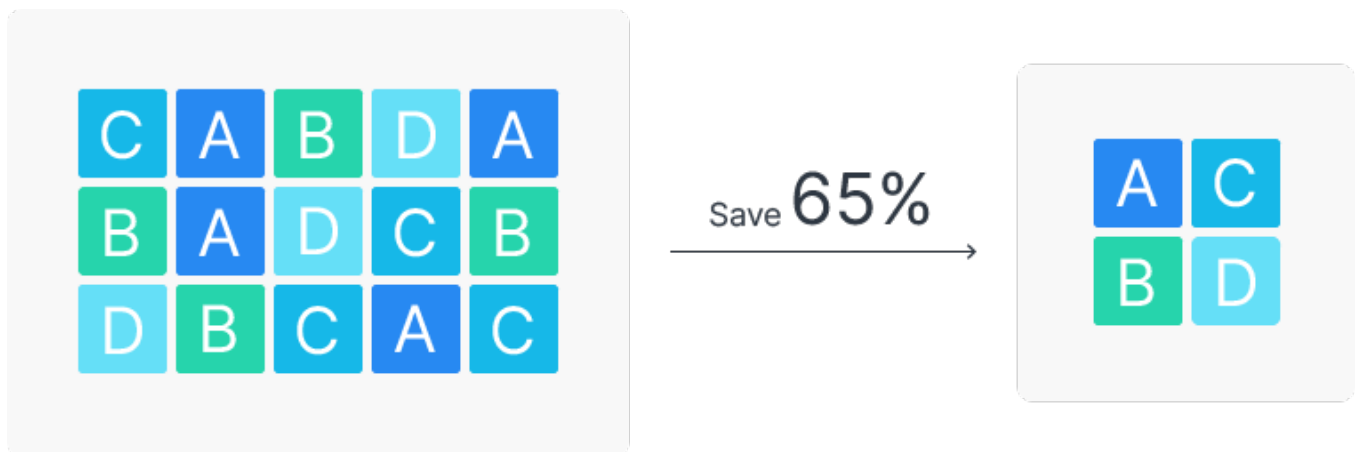
[See the white paper for more technical details regarding RAID F1](#)

Compared with traditional RAID, RAID F1 distributes uneven workload to SSDs to prevent all drives from wearing out simultaneously.

Flash volume deduplication

Remove duplicate data on all-flash arrays with volume-wide deduplication to greatly increase storage efficiency. Eliminate redundant data to save up to 65% in storage space use in applications like virtual desktop infrastructure, and virtual machine.

C	A	B	D	A
B	A	D	C	B
D	B	C	A	C

Save **65%** →

A	C
B	D

Digital asset protection

Powered by Synology DiskStation Manager (DSM), Synology NAS offers advanced security measures to protect against sudden data loss and potential security holes.

Security Advisor

Analyze system settings, password strength and network preferences, and remove any possible malware.

AppArmor

A kernel-level enhancement that blocks malicious programs from accessing unauthorized system resources.

AES 256-bit encryption

Encrypt shared folders and network data transmission to avoid unauthorized data access.

2-step verification

Prevent others from logging in to your DSM by generating a six-digit one-time password (OTP) on your mobile device.

5-year warranty

At Synology, we are committed to product innovation and quality. Synology guarantees a robust and reliable data management experience with a 5-year limited warranty, providing responsive technical support and hardware replacement services to maximize your return on investment.

Powered by Synology DiskStation Manager

Synology High Availability

Seamless transition between clustered servers in the event of a server failure to minimize the impact on applications.

Synology Office

Collaborate on documents, spreadsheets, and slides in real time to boost team productivity.

Synology MailPlus

Secure, reliable, and private mail server solution with an intuitive and modern mail client.

Virtual Machine Manager

Run various operating systems in isolated sandboxes. Seamlessly clone, store, and migrate virtual machines.

Security

Shield your Synology NAS from the most sophisticated threats with industry-leading security solutions.

Snapshot Replication

Schedulable and instantaneous data protection of shared folders and iSCSI LUNs for quick disaster recovery.

Software
DSM Specifications

Storage Management		
[Storage Management](#)	Maximum Single Volume Size	1 PB (64 GB memory required, for RAID 6 groups only) 200 TB 108 TB
	Maximum Internal Volume Number	256
	SSD Read/Write Cache [(Determining cache size)](#)	
	SSD TRIM	
	RAID Group	
	Supported RAID Type	- RAID F1 - Basic - JBOD - RAID 0 - RAID 1 - RAID 5 - RAID 6 - RAID 10
	RAID Migration	- Basic to RAID 1 - Basic to RAID 5 - RAID 1 to RAID 5 - RAID 5 to RAID 6
	Volume Expansion with Larger HDDs	- RAID F1 - RAID 1 - RAID 5 - RAID 6 - RAID 10
	Volume Expansion by Adding a HDD	- RAID F1 - JBOD - RAID 5 - RAID 6

	Global Hot Spare Supported RAID Type	- RAID F1 - RAID 1 - RAID 5 - RAID 6 - RAID 10
	Notes	- Usable capacity for each volume will be lower than the maximum volume size and is dependent on the filesystem and the amount of system metadata stored. - When Peta Volume is enabled, validated services and packages are required. Please refer to [this article](#) for more information on limitations. - Actual maximum storage pool and volume sizes depend on drive sizes used, the number of drive bays available, and the RAID configuration.
[File System](#)	Internal Drives	- Btrfs - ext4
	External Drives	- Btrfs - ext4 - ext3 - FAT - NTFS - HFS+ - exFAT
	Notes	exFAT Access can be installed for free from Package Center in DSM 7.0. In DSM 6.2 or earlier versions, exFAT Access

			needs to be purchased in Package Center.
[File Services](#)	File Protocol		- SMB - AFP - NFS - FTP - WebDAV - Rsync
	Maximum Concurrent SMB/AFP/FTP Connections	8,000	
	Maximum Concurrent SMB/AFP/FTP Connections (with RAM expansion)	10,000	
	Windows Access Control List (ACL) Integration		
	NFS Kerberos Authentication		
	Notes		- Regarding data concerning tests with RAM expansion, all memory slots are installed with the maximum capacity of supported RAM. - During testing, the maximum number of SSDs supported by this model is installed in a RAID 5 configuration. - The testing standard was based on the maximum number of concurrent connections supported by this model. During the testing, 25% of the connections were used to transfer files concurrently. The transfer process guaranteed that the connections were not

		interrupted; the minimum transfer speed was not guaranteed.
[Account & Shared Folder](#)	Maximum Local User Accounts	16,000
	Maximum Local Groups	512
	Maximum Shared Folder	512
	Maximum Shared Folder Sync Tasks	32
[Hybrid Share](#)	Maximum Hybrid Share Folders	30
[Hyper Backup](#)	Folder and Package Backup	
	Entire System Backup	
	Notes	Full-system backup requires DSM 7.2 or later.
[High Availability](#)	Synology High Availability	
[Log Center](#)	Syslog Events per Second	3,000
Virtualization	VMware ESXi 6.5 and VAAI	
	Windows Server 2016	
	Windows Server 2019	
	Windows Server 2022	
	Citrix Ready	
	OpenStack	
[General Specifications](#)	Supported Protocols	SMB1 (CIFS), SMB2, SMB3, NFSv3, NFSv4, NFSv4.1, NFS Kerberized sessions, iSCSI, Fibre Channel, HTTP, HTTPs, FTP, SNMP, LDAP, CalDAV
	Supported Browsers	- Chrome - Firefox - Edge - Safari
	Supported Language	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svenska, Nederlands, ???????, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, ?eský, ???????, ???, ???,

	Notes	????, ???? For an updated list of supported browser versions, check the [DSM Technical Specifications](#).

Add-on Packages [view the complete package list](#)

[Central Management System](#)

[Synology Chat](#)	Suggested Users	1,500
	Notes	Models with expandable memory are tested with their maximum supported memory.
[SAN Manager](#)	Maximum iSCSI Target Number	256
	Maximum LUN	512
	LUN Clone/Snapshot, Windows ODX	
	Notes	iSCSI Manager has been renamed to SAN Manager in DSM 7.0.
[Synology MailPlus / MailPlus Server](#)	Free Email Accounts	5 [(Additional accounts require purchase of licenses)](#)
	Suggested Users	17,500
	Notes	- Suggested users is derived from testing in an environment with 20% heavy users (each with 20,000 pre-populated emails and receiving 240 emails per day) and 80% light users (each receiving an average of 20 emails per day). [Learn more](#) - The performance of the mail system will slightly decrease in high-availability mode due to data synchronization between the two

- servers.
- Functions that were enabled in all of the tests above: anti-spam, anti-virus, DNSBL, greylist, content scan, full-text search (English only).
- Models with expandable memory are tested with their maximum supported memory. To estimate the RAM requirement for your NAS, please [read this article](#).

[Snapshot Replication](#)	Maximum Snapshots per Shared Folder	1,024
	Maximum of System Snapshots	65,536
[Surveillance Station](#)	Default Licenses	2 [(Additional cameras require purchase of licenses)](#)
	Suggested Maximum IP Cameras and Total FPS (H.264)	1080p: 485 channels, 4850 FPS 3M: 450 channels, 4500 FPS 5M: 300 channels, 3000 FPS 4K: 220 channels, 2200 FPS
	Suggested Maximum IP Cameras and Total FPS (H.265)	1080p: 520 channels, 15600 FPS 3M: 485 channels, 4850 FPS 5M: 450 channels, 4500 FPS 4K: 300 channels, 3000 FPS
	Notes	Surveillance Station 9.1.3 or above is required to support

the maximum IP cameras and FPS figures listed.

- Performance figures are obtained from testing conducted with the device fully populated with drives, with their default memory configuration, and under a continuous recording setup. Actual system capabilities may vary based on configuration, drive performance, enabled features, and the presence of additional workloads.
- Use [NVR Selector](#) to quickly find a suitable model based on your requirements.
- The number of streams that can be viewed simultaneously is **twice** the suggested maximum number of cameras. For example, if the suggested maximum number of cameras for a model is 10 under H.264, 1080p, the model can support up to 20 streams of the same specification at the same time.

| [Synology Drive](#) | Recommended Number of | 2,000 (the number of |

	Concurrent Sync Clients	connections that can be maintained when the recommended number of hosted files was reached)
	Recommended Number of Hosted Files	100,000,000 (applies to files indexed or hosted by [Synology Drive](). For file access through other standard protocols, refer to the File Services section above)
	Notes	- Exceeding the recommended numbers above will not block application operations, but may result in longer response time. - Utilizing SSD cache can significantly improve performance. - Models with expandable memory are tested with their maximum supported memory. - Btrfs file system and non-encrypted shared folders were used during the aforementioned testing.
[Synology Office]()	Suggested Users	16,250
	Notes	Suggested users is derived from testing in an environment with 60% idle users (each logging in and viewing documents) and 40% active users (each executing random actions at intervals of 20 to 40

seconds) operating within documents, each document having 30 users. Learn more

- Models with expandable memory are tested with their maximum supported memory.
- Client performance may affect maximum simultaneous editing users. Client PCs used for testing: Intel Core i3-3220 / 8GB RAM

Virtual Machine Manager	Recommended Virtual Machine Instances	32 (Learn more)
	Recommended Virtual DSM Number (Licenses required)	32 (including 1 Free License)
	Notes	The specifications vary depending on system configuration and memory size.
VPN Server	Maximum Connections	60

Specification

NAS	
CPU Model	Intel Xeon Silver 4110
CPU Quantity	2
CPU Core	8
CPU Architecture	64-bit
CPU Frequency	2.1 (base) / 3.0 (turbo) GHz
Hardware Encryption Engine	Yes
Memory	32 GB DDR4 ECC RDIMM
Drive Bays	24
Hot Swappable Drive	Yes
RJ-45 1GbE LAN Port	2
USB 3.2 Gen 1 Port	2
System Fan	80 mm x 80 mm x 4 pcs
Power Supply Unit / Adapter	800 watts

Total Memory Slots	16
Maximum Memory Capacity	512 GB (32 GB x 16)
Expansion Port	1
PCIe Expansion	2 x Gen3 x8 slots (x8 link)
Form Factor (RU)	2U
Redundant Power Supply	Yes
RJ-45 10GbE LAN Port	2

Product Gallery