DiskStation DS1823xs+

Brand: Synology
Product Code: DS1823xs+
Availability: 10
Weight: 6.20kg
Dimensions: 243.00mm x 343.00mm x 166.00mm

Price: $149,447.00

Short Description
Synology 8 Bay DiskStation DS1823xs+

Description

Private data center on your desk

The DS1823xs+ is a powerful central storage server that can easily be deployed anywhere to provide shared data storage and sharing, endpoint and server backup, VM storage, surveillance management, and other business applications. It is perfect in settings where no dedicated server rack or data center is available.

Desktop-sized powerhouse

Over 3,100/2,600 MB/s seq. read/write,[1] built-in 10GbE, and up to 160 TB raw storage[2] before expansion.

Flexible configuration

Add up to 10 extra drive bays, 25GbE or Fibre Channel, and SSD cache volumes when needed.[3]

Versatile applications

Back up 300 endpoints, manage 75 IP cameras,[4] or safely sync and share files between devices and sites.

Safe, dependable, and scalable

Built-in data integrity protection, remote management options, and easy hardware expansion make the DS1823xs+ dependable, easy to maintain, and cost efficient.

Data integrity protection

The Btrfs file system helps prevent data corruption or loss through metadata mirroring, file self-healing, and efficient point-in-time snapshots. ECC memory provides additional

integrity safeguards.

Efficient remote management

Monitor, manage, and replace drives and storage online in Synology DSM. Remotely reboot, reset, or view logs while the system is down thanks to out-of-band management (OOB).

Plug-and-play expansion

The DS1823xs+ can be scaled to up to 18 bays by adding two DX517 expansion units without system downtime, thanks to online storage and volume expansion.

The performance you need

Configure the DS1823xs+ to handle any workload. Easily add 1/10/25GbE or Fibre Channel ports and designate NVMe or SATA SSD volumes as read/write cache to boost

HDD performance.

Simply faster

Experience faster[6] file indexing in Synology Drive and higher sequential throughput.

Store, share, and protect

Manage all your documents, photos, and other files, back up applications and devices, and protect your physical assets with professional video surveillance.

Flexible file server

Backup repository

Business application platform

Flexible file server

Use the DS1823xs+ as a central file repository and data sharing hub. Provide easy access to business data from PCs, phones, and other devices, and set up powerful cross-site syncing to empower collaboration between offices or branches.

Private cloud

A private cloud suite for file sharing

Empower your entire organization with a streamlined ability to access, share, and sync data from anywhere. Provide employees with access to corporate files through mobile apps, desktop clients, and a browser-based interface. Set granular file and folder access and sharing permissions. Maintain a full overview of file activities and track file share settings changes with detailed records in the Synology Drive Admin Console.

Dependable and secure network storage

Use shared folders on your Synology device as reliable storage available from anywhere on your local network over all common protocols (SMB/NFS/WebDAV/FTP). Protect your files against accidental changes and removal or even malware attacks with built-in snapshot technology and other backup options.

Cross-site syncing

Secure site-to site file and folder syncing

Make sure branches always have up-to-date copies of crucial documents and data available locally by syncing Synology systems one or two-way using Synology Drive ShareSync. Have files updated across locations each time there is a change to efficiently keep all stakeholders on the same page.

Efficient cross-site syncing through the cloud

Boost syncing speeds, cut bandwidth use, and reduce your storage footprint by leveraging the powerful connectivity of our data centers. Synology Hybrid Share intelligently synchronizes data to Synology devices.[9] Large or less frequently accessed files are stored on the cloud to reduce local storage requirements, while frequently used files are stored on local devices to provide users access at LAN speeds.

Backup repository

Back up files, folders, physical devices, VMs, and SaaS applications with free solutions, and protect your NAS with built-in technologies.

Back up all your devices

Centralize your backup and recovery solution

Consolidate and automate backup tasks for PCs, file servers, VMs, SaaS applications, and more with Active Backup Suite. Administer device backups remotely through a centralized portal and quickly restore specific files or entire devices to keep your business up and running. Take advantage of built-in remote backup solutions designed to protect your data with seamless 3-2-1 backup configurations.
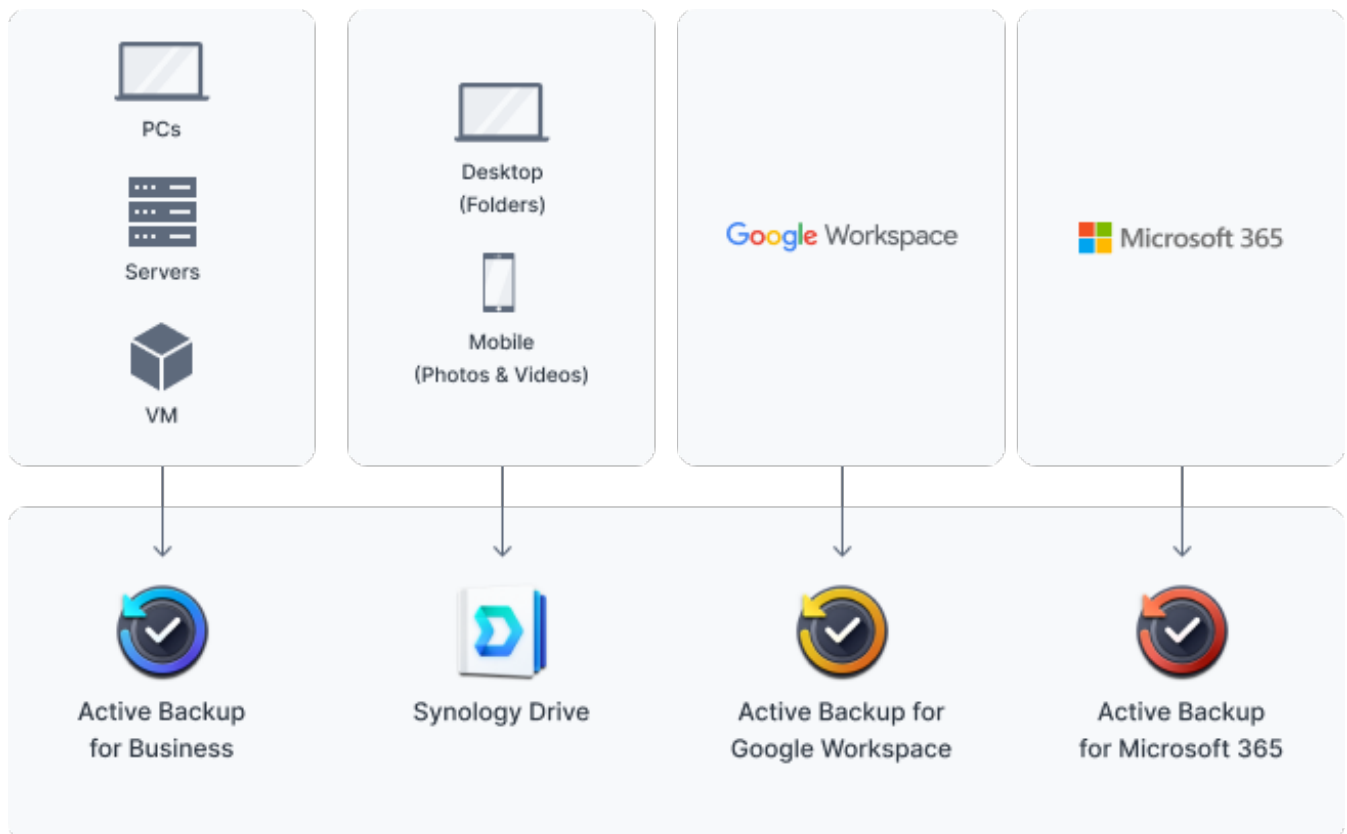
Protect your Synology system

Perform full system backups with Synology

Protect all data, applications, and configurations on your Synology systems with comprehensive scheduled backups to local and remote servers, external drives, or cloud storage destinations including [Synology C2 Storage](#).

Protect folders and LUNs with snapshots

Configure efficient point-in-time snapshots of shared folders and LUNs at intervals as short as 5 minutes. Allow users to easily restore previous versions of files unassisted, quickly recover VMs, and copy snapshots to another server to benefit from rapid storage failover.

Hyper Backup

Snapshot Replication
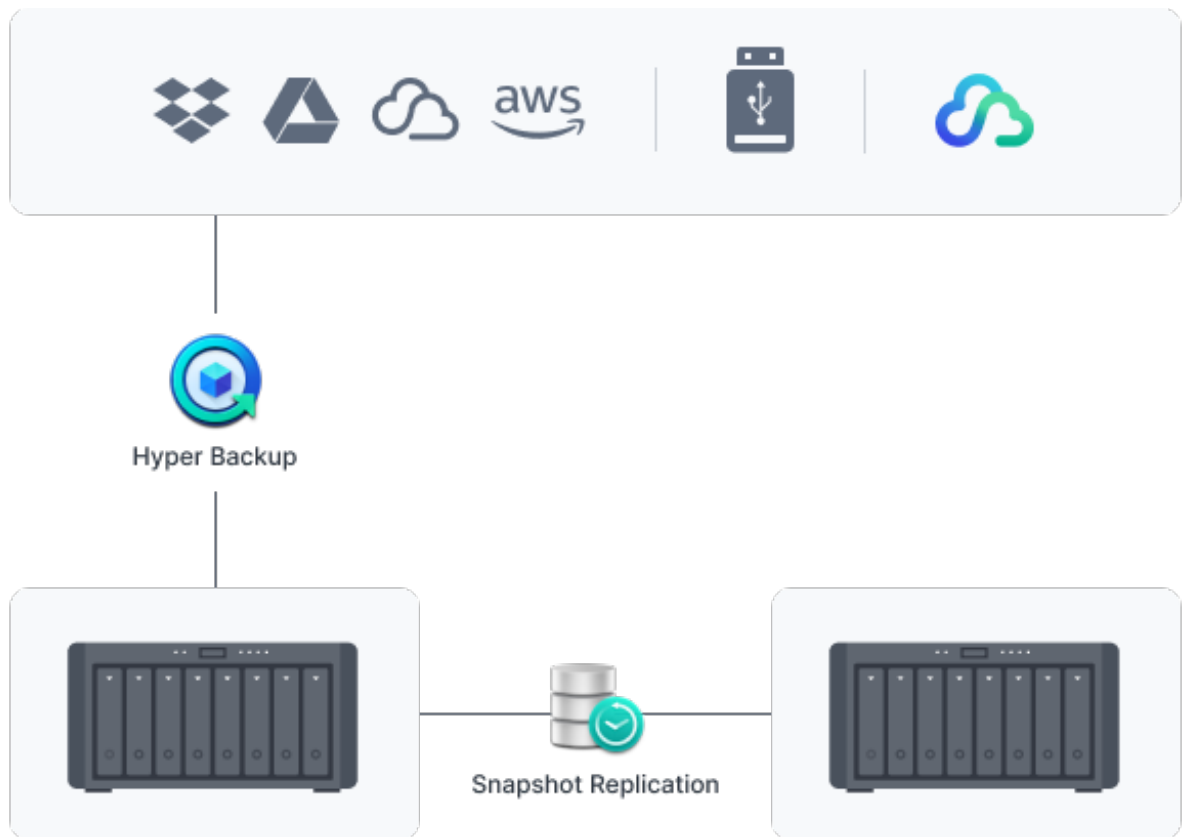
Business application platform

Host cost-efficient business solutions, either through containers, virtual machines, or Synology DiskStation (DSM)'s own solutions, including a powerful free backup suite, a versatile mail server, and a surveillance VMS with transparent licensing.

Synology productivity solutions

Collaboration in a secure cloud

Create and edit documents, spreadsheets, and slides together with your whole team in real time. Easily migrate existing documents from other platforms and take ownership of your files in a secure private cloud.

Synology's private cloud mail solution provides ease of use, full data ownership, and robust data security with a low total cost of ownership thanks to its perpetual licensing model.

Keep teams connected through encrypted one-on-one private chats, public channels, and group conversations. Efficiently organize discussions with bookmarks, searchable hashtags, and chatbots.

Containerization and virtualization-ready

Application test environment

Run Docker containers and VMs on DS1823xs+ using Docker and Synology Virtual Machine Manager (VMM)[10] — a hypervisor for virtualized versions of Windows®, Linux®, and DSM — to safely test and evaluate applications.
Virtual DSM serves as a test environment for package updates or to add an additional layer of security between applications, systems, and data.

Software
DSM Specifications

Storage Management	Maximum Single Volume Size	• 200 TB (32 GB memory required)

		• 108 TB
Maximum Internal Volume Number	256	
M.2 SSD Storage Pool Support*		
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		• Creating M.2 storage pools requires the use of Synology-verified SSDs, which are rigorously tested under extreme

		temperature conditions. Thermal parameters for SSDs and NAS units are fine-tuned to ensure optimal management of thermal conditions under I/O-intensive environments. ([Learn more](#)) • 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. • Volumes over 108 TB require 32 GB of memory or more.
[File System](#)	Internal Drives	• Btrfs • ext4
	External Drives	• Btrfs • ext4 • ext3 • FAT • NTFS • HFS+ • exFAT
[File Services](#)	File Protocol	• SMB • AFP • NFS • FTP • WebDAV • Rsync
	Maximum Concurrent SMB/AFP/FTP Connections	2,000
	Maximum Concurrent SMB/AFP/FTP Connections (with RAM expansion)	8,000
	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	15
[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 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	400
	Notes	Measured with simulated users, each with an average record of 20,000 messages, emojis, or stickers. The required server response time is below ten seconds.

		• Models with expandable memory are tested with their maximum supported memory.
Download Station	Maximum Concurrent Download Tasks	80
SAN Manager	Maximum iSCSI Target Number	256
	Maximum LUN LUN Clone/Snapshot, Windows ODX	512
Synology MailPlus / MailPlus Server	Free Email Accounts	5 (Additional accounts require purchase of licenses)
	Suggested Users	5,000
	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]().
[Media Server](){.underline} [Synology Photos](){.underline}	DLNA Compliance Facial Recognition Object Recognition	
[Snapshot Replication](){.underline}	Maximum Snapshots per Shared Folder	1,024
	Maximum of System Snapshots	65,536
[Surveillance Station](){.underline}	Default Licenses	2 [(Additional cameras require purchase of licenses)]()
	Suggested Maximum IP Cameras and Total FPS (H.264)	• 1080p: 75 channels, 2100 FPS • 3M: 75 channels, 1500 FPS • 5M: 75 channels, 900 FPS • 4K: 55 channels, 550 FPS
	Suggested Maximum IP Cameras and Total FPS (H.265)	• 1080p: 75 channels, 2250 FPS • 3M: 75 channels, 2250 FPS • 5M: 75 channels, 1500 FPS • 4K: 75 channels, 900 FPS
	Notes	• 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 Concurrent Sync Clients	900 (the number of connections that can be maintained when the recommended number of hosted files was reached)
	Recommended Number of Hosted Files	50,000,000 (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	12,500
	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	8 (Learn more)
	Recommended Virtual DSM Number (Licenses required)	8 (including 1 Free License)
	Notes	The specifications vary depending on system configuration and memory size.
VPN Server	Maximum Connections	60

Specification

NAS	
CPU Model	AMD Ryzen V1780B
CPU Quantity	1
CPU Core	4
CPU Architecture	64-bit
CPU Frequency	3.35 (base) / 3.6 (turbo) GHz
Hardware Encryption Engine	Yes
Memory	8 GB DDR4 ECC SODIMM
Drive Bays	8
Hot Swappable Drive	Yes
RJ-45 1GbE LAN Port	2
USB 3.2 Gen 1 Port	3
System Fan	120 mm x 120 mm x 2 pcs
Power Supply Unit / Adapter	250 watts
Total Memory Slots	2
Maximum Memory Capacity	32 GB (16 GB x 2)
M.2 Drive Slots	2 (NVMe)
Expansion Port	2
PCIe Expansion	1 x Gen3 x8 slot (x4 link)

Product Gallery