

DiskStation DS2419+



Synology DiskStation DS2419+ is a 12-bay desktop NAS designed for small and medium-sized businesses. This high-capacity and scalable NAS comes with expandable storage capability, upgradable memory configuration, and diversified add-on card options, meeting the modern corporate needs for a flexible, reliable and efficient storage solution. Synology DS2419+ is backed by Synology's 3-year limited warranty.

High Capacity & Scalable NAS Catering to Business Needs

Designed in desktop form factor, Synology DS2419+ is a 12-bay network-attached storage solution right-sized for small and medium-sized businesses that require massive and flexible storage capacity, but do not need to store the NAS in a standard rack frame. It can ideally serve as a file server, a centralized backup target, or a hub-and-spoke backup target for your business, providing uncompromised performance and quality.

DS2419+ is equipped with a **quad-core** processor and **4GB DDR4 memory (up to 32GB)**¹. It supports up to **336TB** storage space when connected to one Synology **DX1215**² expansion unit. Under a 10GbE network environment, DS2419+ delivers sequential throughput performance at over **1,716 MB/s reading** and **671 MB/s writing**³. The **PCIe 3.0 slot** can be installed not only with an optional network interface card but also with a M.2 adapter card⁴ using **M.2 NVMe/SATA** SSDs as cache, boosting up random read/write IOPS.

Effortless Virtualization Environment

Synology iSCSI storage fully supports most virtualization solutions to enhance work efficiency with a simple management interface. **VMware vSphere™ 6.5** and **VAAI** integration helps to offload storage operations and optimizes computation efficiency. **Windows Offloaded Data Transfer (ODX)** speeds up data transfer and migration rates, while **OpenStack Cinder** support transforms your Synology NAS into a block-based storage component.

Synology's **Virtual Machine Manager** adds boundless capabilities to your NAS. Set up and run various virtual machines including **Windows**, **Linux**, and **Virtual DSM**, so that you can test new software versions in a sandbox environment, isolate your customers' machines, and increase the flexibility of your DS2419+ with reduced hardware deployment and maintenance costs.

Highlights

- High capacity and scalable desktop NAS readily adapts to demanding business needs
- Quad-Core, 2.1 GHz CPU with AES-NI support. 4GB DDR4 memory expandable up to 32GB¹
- Outstanding performance at over 1,716 MB/s reading and 671 MB/s writing³
- Scale up to 336TB with Synology DX1215²
- Boost IOPS performance with M.2 NVMe/SATA SSD cache through optional M2D18 adapter card⁴
- Four built-in 1GbE (RJ-45) ports with failover and Link Aggregation support. Optional 10GbE add-on card providing high speed data rate
- Advanced Btrfs file system offering 65,000 system-wide snapshots and 1,024 snapshots per shared folder
- Synology High Availability (SHA) allows for uninterrupted services with seamless transitioning between clustered servers

Ultimate Backup Solution

DS2419+ integrates various backup applications to safeguard your important data on any device with an intuitive user interface and durable storage technologies.

- **Desktop backup: Cloud Station Backup** safeguards your PC, Mac, or other desktop devices. DS2419+ is also compatible with Time Machine, allowing you to effortlessly backup your Mac to Synology NAS.
- **NAS backup: Hyper Backup** comprehensively backs up your data to a local shared folder, an external device, another Synology NAS, an rsync server, or a public cloud service to ensure data safety.
- **Server/VMware backup: Active Backup for Business** centralizes backup tasks for VMware virtual machines, Windows PC, servers, and rsync/SMB file servers. Fast and reliable recovery options ensure running services, VMs and files instantly available when needed.
- **SaaS backup: Active Backup for Office 365/G Suite** is an on-premise backup solution for public clouds with a centralized dashboard, optimizing storage efficiency through the single instancing and block-level deduplication technology.

Btrfs: Next Generation Storage Efficiency

DS2419+ introduces the **Btrfs file system**, bringing the most advanced storage technologies to meet the management needs of modern businesses:

- **Advanced snapshot technology** with customizable backup schedule allows shared folders to be backed up in a minimum **5-minute interval**, without consuming heavy system resources.
- **File and folder level data restoration** brings huge conveniences and saves time for users who wish to restore only a specific file or folder.
- **Flexible Shared Folder** and **User Quota System** provide comprehensive quota control on all user accounts and shared folders.
- **File self-healing:** Btrfs file system is able to auto-detect corrupted files with mirrored metadata, and recover broken data using the supported RAID volumes, which include RAID1, 5, 6, and 10.
- A cutting-edge **iSCSI service** built for IT administrators that offers advanced LUN and provides lightning-fast snapshot creation, recovery, and cloning.

Reliability, Availability & Disaster Recovery

System reliability is critical for businesses everywhere. DS2419+ responds to these concerns with wide-ranging availability and redundancy features:

- Synology **High Availability** ensures seamless transitioning between clustered servers in the event of unexpected disasters and ensures that your services remain online.
- **Snapshot Replication** provides schedulable, near-instantaneous data protection, ensuring business documents in shared folders, virtual machines in iSCSI LUNs, or dockerized application data remain safe and available in the event of a disaster.
- **Redundant system fans** and **network ports** with failover support ensure continual service uptime.
- High reliability system design, including **fan-less CPU heat-sink** and **passive cooling technology**, prevents single points of failure.
- Optional 5-year warranty⁵ is available in select regions.



Virtualization Ready

Synology DS2419+ is an optimized and certified storage solution for various virtualization environments.

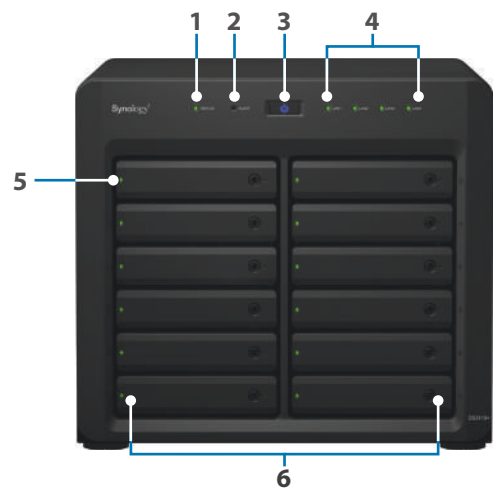


Next-Generation File System

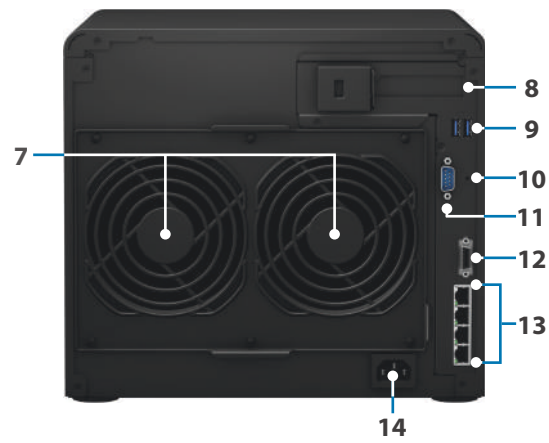
A modern file system designed to address obstacles often encountered in enterprise storage systems. Safeguarding data integrity through metadata mirroring, self-healing and snapshot replication.

Hardware Overview

Front



Rear



1	Status indicator	2	Alert indicator	3	Power button	4	LAN indicator
5	Drive status indicator	6	Drive tray	7	Fan	8	PCIe expansion slot
9	USB 3.0 port	10	RESET button	11	Console Port	12	Expansion port
13	1GbE RJ-45 port	14	Power port				

Technical Specifications

Hardware

CPU	Intel Atom C3538 quad-core 2.1GHz
Hardware encryption engine	Yes (AES-NI)
Memory	4 GB DDR4 Non-ECC SO-DIMM ¹ (expandable up to 32 GB with 16 GB ECC SO-DIMM x 2)
Compatible drive type	• 12 x 3.5" or 2.5" SATA SSD/HDD (drives not included) • 2 x M.2 2280/2260/2242 NVMe/SATA SSD via M2D18 adapter card⁴ (drives not included)
Hot swappable drive	Yes
External port	• 2 x USB 3.0 port • 1 x expansion port
Size (HxWxD)	270 x 300 x 340 mm
Weight	9.5 kg
LAN	4 x Gigabit (RJ-45)
Wake on LAN/WAN	Yes
PCIe 3.0 slot	• 1 x 4-lane x8 slot • 10GbE network interface cards support • M.2 NVMe/SATA SSD adapter card support⁴
Scheduled power on/off	Yes
System fan	2 (120 x 120 x 25 mm)
AC input power voltage	100V to 240V AC
Power frequency	50/60Hz, single phase
Operating temperature	0°C to 40°C (32°F to 104°F)
Storage temperature	-20°C to 60°C (-5°F to 140°F)
Relative humidity	5% to 95% RH
Maximum operating altitude	2,000 m (6,500 ft)

General DSM specification

Networking protocol	SMB, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)
File system	- Internal: Btrfs, ext4 - External: Btrfs, ext4, ext3, FAT, NTFS, HFS+, exFAT⁶
Supported RAID type	Synology Hybrid RAID (SHR), Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, RAID 10
Storage management	- Maximum single volume size: 108TB - Maximum system snapshots: 65,536⁷ - Maximum internal volume: 512
SSD cache	- Read-write cache support - M.2 SSD support (M.2 NVMe/SATA SSD)*
File sharing capability	- Maximum local user account: 2,048 - Maximum local group: 256 - Maximum shared folder: 512 - Maximum concurrent SMB/NFS/AFP/FTP connection: 1,000
Privilege	Windows Access Control List (ACL), application privilege
Directory service	Windows® AD integration: Domain users login via SMB/NFS/AFP/FTP/File Station, LDAP integration
Virtualization	VMware vSphere® 6.5, Microsoft Hyper-V®, Citrix®, OpenStack®
Security	Firewall, Encryption shared folder, SMB encryption, FTP over SSL/TLS, SFTP, rsync over SSH, Login auto block, Let's Encrypt support, HTTPS (Customizable cipher suite)
Supported client	Windows 7 onwards, Mac OS X® 10.11 onwards
Supported browser	Chrome®, Firefox®, Internet Explorer® 10 onwards, Safari® 10 onwards; Safari (iOS 10 onwards), Chrome (Android™ 6.0 onwards)
Interface language	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svensk, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, ไทย, 日本語, 한국어, 繁體中文, 简体中文

Packages and Applications

File Server & Synchronization

Drive	Provide universal portal to synchronize your files across various platforms, including Windows, macOS, Linux, Android and iOS. The built-in universal portal allows you to access data anytime and anywhere. - Maximum number of hosted files: 550 - Maximum number of concurrent connections for PC clients: 1,000,000
File Station	Virtual drive, remote folder, Windows ACL editor, compressing/extracting archived files, bandwidth control for specific users/groups, creating sharing links, transfer logs
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
Presto File Server®	High-speed data transfer over WAN with exclusive SITA technology between Synology NAS and desktop
Cloud Sync	One or two-way synchronization with public cloud storage providers including Alibaba Cloud OSS, Amazon Drive, Amazon S3-compatible storage, Backblaze B2, Baidu Cloud, Box, Dropbox, Google Cloud Storage, Google Drive, hubiC, MegaDisk, Microsoft OneDrive, OpenStack Swift-compatible storage, Tencent COS, WebDAV servers, Yandex Disk
Universal Search	Offer global search into applications and files

iSCSI Storage & Virtualization

iSCSI Manager	- Maximum iSCSI target: 128 - Maximum iSCSI LUN: 256 - iSCSI LUN clone/snapshot support
Virtual Machine Manager	Deploy and run various virtual machines on Synology NAS, including Windows, Linux, or Virtual DSM

Data Protection & Backup Solution

Hyper Backup	Support local backup, network backup, and backup data to public clouds
Backup tools	DSM configuration backup, macOS Time Machine support, Cloud Station Backup Shared folder sync - maximum task number: 16
Snapshot Replication	- Maximum of shared folder snapshots: 1,024 - Maximum of Replication: 32
High Availability Manager	Reduce service downtime by setting up two identical NAS into one high-availability cluster
Active Backup for G Suite	Support G Suite My Drive and Team Drive backup and restoration
Active Backup for Office 365	Support Office 365 OneDrive for Business, mail, contacts, and calendar backup and restoration
Active Backup for Business	All-in-one backup solution designed for heterogeneous business IT environment, enabling IT admins to remotely manage and monitor protection over PC, servers and VM on one centralized console

Productivity & Collaboration	
Collaboration tools	Collaborate with instant message service Chat, online editor Office, and scheduling assistant Calendar • Chat maximum user: 1,500 • Office maximum user: 1,800 • Calendar: support CalDAV and access via mobile devices
Note Station	Rich-text note organization and versioning, encryption, sharing, media embedding and attachments
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)
MailPlus	Intuitive webmail interface for MailPlus Server, customizable mail labels, filters, and user interface
Multimedia	
Moments	Support smart AI album with facial and subject recognition, photo editing and sharing features, similar photo detection, auto-editing functions such as color correction and angle adjustments, and AI selection of the best photos. Mobile applications are available on iOS and Android devices.
Other packages	Video Station, Photo Station, Audio Station, iTunes® Server
Surveillance	
Surveillance Station	Maximum IP camera: 40 (total of 1,200 FPS at 720p, H.264) (including two free camera licenses; additional cameras require the purchasing of additional licenses)
All-in-One Server	
Synology Directory Server	Provide a flexible and cost-effective domain controller solution
CMS	Provide a single interface to manage and monitor multiple Synology NAS
VPN Server	Maximum connection: 30, supported VPN protocol: PPTP, OpenVPN™, L2TP/IPSec
Mail Server	Supported Mail Server Protocols: POP3, SMTP, IMAP, Support LDAP/AD account
Mail Station	Webmail interface for Mail Server to receive emails from multiple POP3 mailboxes, customizable SMTP server
Web Station	Virtual host (up to 30 websites), PHP / MariaDB®, third-party applications support
Other packages	DNS Server, RADIUS Server, Log Center
Others	
Storage Analyzer	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, least recently accessed files
Antivirus Essential	Full system scan, scheduled scan, white list customization, virus definition auto update
iOS / Android™ applications	Synology Drive, DS audio, DS photo, DS video, DS cam, DS cloud, DS file, DS finder, DS note, Moments, MailPlus
Other packages	Additional 3rd-party packages available on Package Center

Environment and Packaging

Environment safety	RoHS compliant
Package content	• DS2419+ main unit x 1 • Quick Installation Guide x 1 • Accessory pack x 1 • AC power cord x 1 • RJ-45 LAN cable x 2
Optional accessories	• 4GB DDR4-2133 Non-ECC SO-DIMM (D4NS2133-4G) • 16GB DDR4-2133 ECC SO-DIMM (RAMEC2133DDR4SO-16G) • Synology E10G18-T2 / E10G18-T1 / E10G17-F2 10Gbps Ethernet adapters • Synology Expansion Unit DX1215 • Synology M2D18 M.2 SSD adapter card • VisualStation VS360HD, VS960HD • Surveillance Device License Pack • MailPlus License Pack • Virtual DSM License Pack
Warranty	3 years ⁵

*Model specifications are subject to change without notice. Please refer to www.synology.com for the latest information.

1. DS2419+ comes with 4GB DDR4 Non-ECC SO-DIMM and can support up to 32GB with optional ECC SO-DIMM.
2. DS2419+ supports up to one Synology DX1215, sold separately.
3. Performance figures may vary depending on environment, usage, and configuration.
4. DS2419+ supports dual M.2 SSDs through M2D18 adapter card, sold separately.
5. 5 year warranty is available as an optional bundle with EW202, 2-year Extended Warranty service add-on. Visit https://www.synology.com/en-global/products/Extended_Warranty for more information on availability. The warranty period starts from the purchase date as stated on your purchase receipt. Visit <https://www.synology.com/company/legal/> warranty for more information.
6. exFAT Access is purchased separately in Package Center.
7. System snapshot includes snapshots taken by iSCSI Manager, Snapshot Replication, and Virtual Machine Manager. Availability of these packages varies by model.
8. Presto File Server License is purchased separately in Package Center.

SYNOLOGY INC.

Synology creates network-attached storage, IP surveillance solutions, and network equipment that transform the way users manage data, conduct surveillance, and manage networks in the cloud era. By taking full advantage of the latest technologies, Synology aims to help users centralize data storage and backup, share files on-the-go, implement professional surveillance solutions, and manage networks in reliable and affordable ways. Synology is committed to delivering products with forward-thinking features and the best in class customer services.

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