RackStation
RS819

Synology RackStation RS819 is a compact and scalable 4-bay rackmount NAS in 1U form factor. Powered by Synology DiskStation Manager with snapshot technology support, RS819 brings business workgroups simple yet comprehensive solutions to data management, sharing, synchronization and backup. Synology RS819 is backed by Synology's 3-year limited warranty.

Compact 1U Rackmount NAS with Excellent Performance

Synology RackStation RS819 is 1U 4-bay rackmount network-attached storage solution for business workgroups. Its compact 12-inch-depth chassis design supports 2-post racks and brings high flexibility to server deployment.

Equipped with a 64-bit quad-core processor, 2 GB DDR4 memory, and two Gigabit LAN ports, RS819 delivers sequential reading and writing throughput at over 225 MB/s and 169 MB/s respectively[1]. Excellent encrypted data transmission at over 224 MB/s reading and 152 MB/s writing make RS819 an efficient shared storage for multiple users, while keeping valuable data secure and away from potential threats.

RS819 also provides storage scalability up to 8 drives when connected to one Synology expansion unit RX418[2]. Storage capacity can be expanded with minimal effort.

Cross-Platform File Sharing and Data Synchronization

Synology RS819 supports comprehensive network protocols, ensuring a seamless file sharing experience across Windows, Mac®, and Linux® platforms. **Windows AD and LDAP integration** allows RS819 to fit quickly and effortlessly into any existing network environment, without the need to create identical user accounts. **Cloud Sync** keeps your Dropbox, Google™ Drive, Microsoft OneDrive, Baidu, and Box storage in sync with your RackStation at the workplace. **Synology Drive** allows you to sync files across Windows, macOS, Linux, and mobile devices, effortlessly keeping everything up-to-date. RS819 combines seamless file sharing capability with a high level of security, including HTTPS support, a built-in firewall, and multiple IP and account intrusion auto-blocking mechanisms.

Highlights

- Scalable 4-bay 1U rackmount NAS for business workgroups
- 64-bit quad-core 1.4GHz processor
- Compact chassis design, less than 12-inch in depth
- Encryption performance at over 224 MB/s reading, 152 MB/s writing[1]
- Dual 1GbE LAN with failover and Link Aggregation support
- Advanced Btrfs file system offering 4,096 system-wide snapshots and 256 snapshots per shared folder
- Scale up to 8 drives with Synology RX418[2]

Btrfs: Next Generation Storage Efficiency

RS819 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.
- **Synology Drive** supports file versioning, requiring as little as half the storage when compared with ext4 file systems.
- **Advanced iSCSI LUNs** based on a Btrfs volume offer lightning-fast snapshot creation, recovery, and cloning.

Easy Backup Solutions

Synology **Hyper Backup** provides multi-version backup with block-level incremental backup and cross-version deduplication. It optimizes storage utilization and allows data to be backed up to multiple destinations such as local shared folders, external hard drives, network shared folders, rsync servers, and public cloud services.
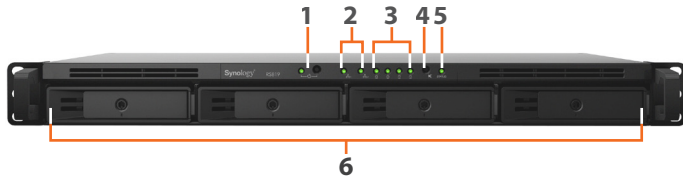
Running on Synology DiskStation Manager (DSM)

Synology DiskStation Manager (DSM) is a web-based operating system tailor-made for every Synology NAS. Featuring an intuitive multitasking user interface, DSM provides simple destop-like experience to minimize efforts in exploring and managing your Synology NAS.

The built-in **Package Center** allows you to download and install a variety of packages designed specifically for your unique needs, including file backup, productivity, safeguard security and utilities.
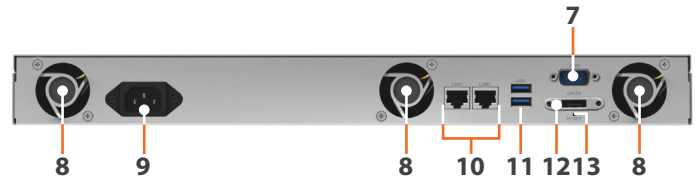
With all the built-in and add-on features, DSM provides you with complete and fine-grained control of your RS819, helping you maximize productivity and make the best out of of your digital assets. All will happen with just a few clicks.

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	Power button and indicator	2	LAN indicator	3	Drive status indicator	4	Beep off button
5	Status indicator	6	Drive tray	7	Console port	8	Fan
9	Power port	10	1GbE RJ-45 port	11	USB 3.0 port	12	eSATA port
13	Reset button						

Technical Specifications

Hardware

CPU	Realtek RTD1296 quad-core 1.4GHz
Hardware encryption engine	Yes
Memory	2 GB DDR4
Compatible drive type	4 x 3.5" or 2.5" SATA SSD/HDD (drives not included)
Hot swappable drive	Yes
External port	• 2 x USB 3.0 port • 1 x eSATA port
Size (HxWxD)	• 44 x 430.5 x 295.5 mm • 44 x 478 x 327.5 mm (with server ears)
Weight	4.34 kg
LAN	2 x Gigabit (RJ-45)
Wake on LAN/WAN	Yes
Scheduled power on/off	Yes
System fan	3 (40 x 40 x 20 mm)
AC input power voltage	100V to 240V AC
Power frequency	50/60Hz, single phase
Operating temperature	5°C to 35°C (40°F to 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 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+, exFAT[3]
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: 4,096[4] • Maximum internal volume: 64
File sharing capability	• Maximum local user account: 2,048 • Maximum local group: 256 • Maximum shared folder: 256 • Maximum concurrent SMB/NFS/AFP/FTP connection: 200
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
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®, Edge®, Internet Explorer® 10 onwards, Safari® 10 onwards; Safari (iOS 10 onwards), Chrome (Android™ 6.0 onwards) on tablets
Interface language	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

File Server & Synchronization	
Drive	Provide a 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: 100,000 • Maximum number of concurrent connections for PC clients: 200
File Station	Virtual drive, remote folder, Windows ACL editor, compressing/extracting archived files, bandwidth control for specific users or 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
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	
iSCSI Manager	• Maximum iSCSI target: 128 • Maximum iSCSI LUN: 256 • iSCSI LUN clone/snapshot support

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: 4
Snapshot Replication	• Maximum of shared folder snapshots: 256 • Maximum of Replication: 16

Productivity & Collaboration	
Collaboration tools	Collaborate with instant message service Chat, online editor Office, and scheduling assistant Calendar • Chat maximum user: 500 • Office maximum user: 200 • Calendar: support CalDAV and access via mobile devices
Note Station	Rich-text note organization and versioning, encryption, sharing, media embedding and attachments

Multimedia	
Moments	Support smart AI album with facial and subject recognition, similar photo detection, and photo editing and sharing features. 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: 30 (total of 900 FPS at 720p, H.264) (Including two free camera licenses; additional cameras require the purchasing of additional licenses)

All-in-One Server	
VPN Server	Maximum connection: 20, 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
Other packages	Additional 3rd-party packages available on Package Center

Environment and Packaging

Environment safety	RoHS compliant
Package content	• RS819 main unit x 1 • Quick Installation Guide x 1 • Accessory pack x 1 • AC power cord x 1
Optional accessories	• Synology Expansion Unit RX418 • VisualStation VS360HD, VS960HD • Surveillance Device License Pack • Rail Kit RKM114-Rail Kit Mounted / RKS1317-Rail Kit Sliding
Warranty	3 years[5]

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

1. Performance figures may vary depending on environment, usage, and configuration.
2. RS819 supports one Synology expansion unit RX418, sold separately.
3. exFAT Access is purchased separately in Package Center.
4. System snapshot includes snapshots taken by iSCSI Manager and Snapshot Replication. Availability of these packages varies by model.
5. 5-year warranty is available as an optional bundle with EW201, 2-year Extended Warranty service add-on. Visit https://www.synology.com/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.

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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