# **Syno**logy<sup>®</sup>

# DiskStation DS918+



Synology DiskStation DS918+ is a 4-bay NAS designed for small and medium-sized businesses and IT enthusiasts. Powered by a new quad-core processor, DS918+ provides outstanding performance and data encryption acceleration along with real-time transcoding of 4K Ultra HD source contents. Synology DS918+ is backed by Synology's 3-year limited warranty.<sup>1</sup>

# High-speed Scalable Storage Server

Synology DS918+ is a 4-bay network attached storage solution equipped with a **quad-core** processor and **4GB DDR3L memory (expandable up to 8GB)**. With Link Aggregation enabled, DS918+ delivers great sequential throughput performance at over **226 MB/s reading** and **222 MB/s writing**<sup>2</sup>. With **AES-NI hardware accelerated encryption**, DS918+ delivers encrypted data throughput at over **225 MB/s reading** and **221 MB/s writing**<sup>2</sup>. DS918+ newly supports **M.2 NVMe 2280 SSDs**, allowing fast system cache creation without occupying internal drive bays.

DS918+ can support up to 9 drives when connected to one Synology **DX517**<sup>3</sup> expansion unit. Storage capacity can be expanded according to your business needs with minimal effort.

# Btrfs: Next Generation Storage Efficiency

DS918+ introduces the **Btrfs file system**, bringing the most advanced storage technologies to meet the management needs of modern businesses:

- **Built-in data integrity check** detects data and file system corruption with data and meta-data checksums and improves the overall stability.
- Flexible Shared Folder/User Quota System provides comprehensive quota control over all user accounts and shared folders.
- Advanced snapshot technology with customizable backup schedule allows up to 1,024 copies of shared folder backups in a minimum 5-minute interval without occupying huge storage capacity and system resources.
- File or folder level data restoration brings huge conveniences and saves time for users who wish to restore only a specific file or folder.
- **File self-healing**: Btrfs file system can auto-detect corrupted files with mirrored metadata, and recover broken data using the supported RAID volumes, which include RAID1, 5, 6, and 10.

# Highlights

- Powerful and scalable 4-bay NAS for growing businesses
- Encrypted sequential throughput at over 225 MB/s reading and 221 MB/s writing<sup>2</sup>
- Quad-core processor with AES-NI hardware encryption engine
- 4GB DDR3L memory, expandable up to 8GB
- Dedicated M.2 NVMe SSD slots for system cache support
- Dual 1GbE LAN with failover and Link Aggregation support
- Scalable up to 9 drives with Synology DX517<sup>3</sup>
- Advanced Btrfs file system offering 65,000 system-wide snapshots and 1,024 snapshots per shared folder
- Dual-channel H.265/H.264 4K video transcoding on the fly<sup>4</sup>

# **Comprehensive Business Applications**

Powered by the innovative Synology **DiskStation Manager (DSM)**, DS918+ comes fully-equipped with applications and features designed specifically for small or growing businesses:

- Windows<sup>®</sup> AD and LDAP support allow easy integration with existing business directory services, without needing to recreate user accounts.
- Windows ACL support provides fine-grained access control and efficient privilege settings, allowing DS918+ to fit seamlessly into current infrastructure.
- Internet file access is simplified by the encrypted FTP server and Synology **File Station**, a web-based file explorer. HTTPS, firewall, and IP auto-block support ensure file sharing over the Internet is protected with a high level of security.
- **Application Privileges** controls access to applications and packages based on each individual account, user group, or IP address.
- **MailPlus** allows your business to set up a secure, reliable, and private mail server while giving your employees a modern mail client for receiving and sending messages.
- The powerful **Collaboration Suite** integrates Synology **Office**, **Calendar**, and **Chat**, ensuring secure and effective private communications and allowing your organizations to easily manage and control relevant contents.

# Virtualization Solutions

Synology's **Virtual Machine Manager** opens up abundant possibilities, allowing you to set up and run various virtual machines, including **Windows, Linux**, and **Virtual DSM**. You can also test new software versions in a sandbox environment, isolate your customers' machines, and increase the flexibility of your DS918+ with reduced hardware deployment and maintenance costs.

Synology iSCSI storage fully supports most of the virtualization solutions, enhancing work efficiency with an intuituve management interface. VMware vSphere<sup>™</sup> 6.5 and VAAI integration help offload storage operations and optimize computation efficiency. Windows Offloaded Data Transfer (ODX) speeds up data transfer and migration rate, while **OpenStack Cinder** support transforms your Synology NAS into a block-based storage component.

# 4K Ultra HD Multimedia Library

Synology DiskStation DS918+ features real-time transcoding for up to **2 channels of H.264/H.265 4K videos** at the same time, bringing more powerful support to the latest multimedia formats and contents. With **Video Station**, you can organize personal digital video library with comprehensive media information, and watch 4K Ultra HD movies and films. The intuitive design of **Photo Station** allows you to effortlessly organize photos into customized categories, smart albums and blog posts, and link them to social networking websites within a few clicks. **Audio Station** comes with Internet radio and lossless audio formats support, and provides music playback via DLNA and AirPlay<sup>®</sup>-compliant devices.



#### Synology Collaboration Suite

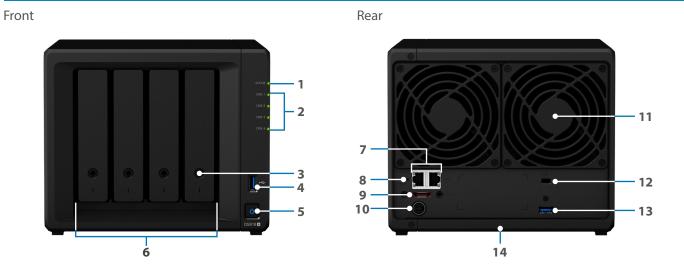
A powerful and secure private cloud solution for business collaboration and organization, offering intuitive yet effective management options.



#### Virtual Machine Manager

Virtual Machine Manager implements various virtualization solutions, allowing you to manage multiple virtual machines on your DS918+, including **Windows**, **Linux**, and **Virtual DSM**.

# Hardware Overview



1	Status indicator	2	Drive status indicator	3	Drive tray lock	4	USB 3.0 port
5	Power button and indicator	6	Drive tray	7	1GbE RJ-45 port	8	Reset button
9	eSATA port	10	Power port	11	Fan	12	Kensington Security Slot
13	USB 3.0 port	14	M.2 NVMe SSD slot (bottom side)				

# Technical Specifications

### Hardware

CPU	Intel Celeron J3455 quad-core 1.5GHz, burst up to 2.3GHz
Hardware encryption engine	Yes (AES-NI)
Hardware transcoding engine	<ul> <li>Supported codecs: H.264 (AVC), H.265 (HEVC), MPEG-2, VC-1</li> <li>Maximum resolution: 4K (4096 x 2160)</li> <li>Maximum frames per second (FPS): 30</li> </ul>
Memory	4 GB DDR3L SO-DIMM (expandable up to 8 GB)
Compatible drive type	<ul> <li>4 x 3.5" or 2.5" SATA SSD/HDD (drives not included)</li> <li>2 x M.2 NVMe 2280 SSD (drives not included)</li> </ul>
External port	<ul> <li>2 x USB 3.0 port</li> <li>1 x eSATA port</li> </ul>
Size (HxWxD)	166 x 199 x 223 mm
Weight	2.28 kg
LAN	2 x 1GbE (RJ-45)
Wake on LAN/WAN	Yes
Scheduled power on/off	Yes
System fan	2 (92 x 92 x 25 mm)
AC input power voltage	100V to 240V AC
Power frequency	50/60Hz, single phase
Operating temperature	5°C to 40°C (40°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	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	<ul> <li>Internal: Btrfs, ext4</li> <li>External: Btrfs, ext4, ext3, FAT, NTFS, HFS+, exFAT<sup>5</sup></li> </ul>
Supported RAID type	Synology Hybrid RAID (SHR), Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, RAID 10
Storage management	<ul> <li>Maximum internal volumes: 512</li> <li>Maximum iSCSI targets: 32</li> <li>Maximum iSCSI LUNs: 256</li> <li>iSCSI LUN clone/snapshot support</li> </ul>
SSD cache	SSD read-write cache support
File sharing capability	<ul> <li>Maximum local user accounts: 2,048</li> <li>Maximum local groups: 256</li> <li>Maximum shared folders: 512</li> <li>Maximum concurrent SMB/NFS/AFP/FTP connections: 1,000</li> </ul>
Privilege	Windows Access Control List (ACL), application privilege
Directory service	Windows $^{\otimes}$ 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, encrypted 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 and 10, Mac OS X $^{\otimes}$ 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, 日本語, 한국어, 繁體中文, 简体中文

### Packages and Applications

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
Universal Search	Offer global search into applications and files
Hyper Backup	Support local backup, network backup, and backup data to public clouds
Active Backup for Server	Centralize data backup for Windows and Linux servers without client installation
Backup tools	DSM configuration backup, macOS Time Machine support, Cloud Station Backup Shared folder sync - maximum tasks: 8
Cloud Station Suite	Sync data between multiple platforms by installing the client utilities on Windows, Mac, Linux, Android and iOS devices, while retaining up to 32 historical versions of files Maximum concurrent file transfers: 1,000
Cloud Sync	One or two-way synchronization with public cloud storage providers including Amazon Drive, Amazon S3-compatible storage, Baidu cloud, Box, Dropbox, Google Cloud Storage, Google Drive, hubiC, MegaDisk, Microsoft OneDrive, OpenStack Swift-compatible storage, WebDAV servers, Yandex Disk
Surveillance Station	Maximum IP cameras: 40 (total of 1,200 FPS at 720p, H.264) (includes two free camera licenses; additional cameras require the purchasing of additional licenses)
Virtual Machine Manager	Deploy and run various virtual machines on Synology NAS, including Windows, Linux, or Virtual DSM
High Availability Manager	Reduce service downtime by setting up two identical NAS into one high-availability cluster
Snapshot Replication	<ul> <li>Maximum replications: 64</li> <li>Maximum shared folder snapshots: 1,024</li> <li>Maximum system snapshots: 65,536</li> </ul>
Synology Directory Server	A flexible and cost-effective domain controller solution
VPN Server	Maximum connections: 20, supported VPN protocol: PPTP, OpenVPN™, L2TP/IPSec
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
Collaboration tools	<ul> <li>Chat maximum users: 1,500</li> <li>Office maximum users: 200, maximum simultaneous editing users: 80</li> <li>Calendar: support CalDAV and access via mobile devices</li> </ul>
Note Station	Rich-text note organization and versioning, encryption, sharing, media embedding and attachments
Storage Analyzer	Volume and quota usage, total size of files, volume usage and trends based on past usage, size of shared folders, largest/most/least frequently modified files
Antivirus Essential	Full system scan, scheduled scan, white list customization, virus definition auto update

Download Station	Supported download protocols: BT, HTTP, FTP, NZB, eMule, Thunder, FlashGet, QQDL Maximum concurrent download tasks: 80
Web Station	Virtual host (up to 30 websites), PHP/MariaDB <sup>®</sup> , 3rd-party applications support
Other packages	Video Station, Photo Station, Audio Station, DNS Server, RADIUS Server, iTunes® Server, Log Center, additional 3rd-party packages are available in Package Center
iOS/Android <sup>™</sup> applications	DS audio, DS cam, DS cloud, DS file, DS finder, DS get, DS note, DS photo, DS video, MailPlus
Windows Phone® applications	DS audio, DS file, DS finder, DS get, DS photo, DS video

#### **Environment and Packaging**

Environment safety	RoHS compliant
De due constant	DS918+ main unit x 1     Quick Installation Guide x 1
Package content	<ul> <li>Accessory pack x 1</li> <li>AC power adapter x 1</li> <li>RJ-45 LAN cable x 2</li> </ul>
Optional accessories	<ul> <li>D3NS1866L-4G</li> <li>Expansion Unit DX517</li> <li>VisualStation VS360HD, VS960HD</li> <li>Surveillance Device License Pack</li> <li>MailPlus License Pack</li> </ul>
Warranty	3 years <sup>1</sup>

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

 Up to 5 years of warranty are available as an additional bundle with Extended Warranty Plus or Extended Warranty, both 2-year extended warranty service add-ons available in select regions. Check availability for Extended Warranty EW201 or Extended Warranty Plus. Different terms and conditions may apply to Synology Certified Refurbished Products. For details, please check corresponding product specification pages or visit https://www.synology.com/company/legal/warranty

2. Performance figures may vary depending on environment, usage, and configuration.

3. DS918+ supports one Synology DX517, sold separately.

4. DS918+ can transcode 4K video to 1080p or lower. The maximum number of concurrent video transcoding channels supported may vary depending on the video codec, resolution, bitrate and FPS.

5. exFAT Access is purchased separately in Package Center.

#### SYNOLOGY INC.

Synology is dedicated to taking full advantage of the latest technologies to bring businesses and home users reliable and affordable ways to centralize data storage, simplify data backup, share and sync files across different platforms, and access data on-the-go. Synology aims to deliver products with forward-thinking features and the best in class customer services.

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