# **Syno**logy<sup>®</sup>

DiskStation

DS920+



# Capacity-scalable NAS with SSD Cache Acceleration Capability

Synology DiskStation DS920+ is an ideal network-attached storage solution designed to streamline data management and productivity. Two built-in M.2 SSD slots and Synology SSD Cache technology allow you to boost system I/O and application performance. With scalable storage design, DS920+ lets you start small and expand storage capacity with the Synology DX517 as your data grows<sup>1</sup>.

# Highlights

- Accelerated Application Performance
   Average 15% performance boost to photo indexing and other computing-intensive operations, as well as database response time<sup>2</sup>
- Reach Optimal Performance and Capacity with SSD Cache

Built-in M.2 2280 NVMe SSD slots permit cache acceleration without occupying storage drive bays

- Expand Storage with Ease

  Flexibly scale up to nine drives to increase storage capacity as demand grows
- Empower Collaboration and Productivity
   Build an on-premises, multi-user collaboration environment with fine-grained control
- Protect and Restore Data in a Snap
   Back up critical data and reduce your Recovery Time
   Objective (RTO) with Snapshot Replication
- Ready to Go Virtualized
   Set up and run mainstream virtual machines within your Synology NAS
- Safeguard Your Physical Assets with 24/7
   Surveillance

Feature-rich Surveillance Station with user-friendly management tools

#### Synology Collaboration Suite

A powerful and secure private cloud solution that lets teams collaborate, sync files, and communicate with others anytime, anywhere.

# Streamline Your Data Management Experience

Synology DS920+ is a powerful 4-bay desktop NAS that brings you a fast and smooth data management experience, as well as sequential read and write throughput of over **225 MB/s**<sup>3</sup>. It benefits computing-intensive applications, speeding up **Synology Drive** and **Moments** by an average 15%<sup>2</sup>, and boosting **Web PHP response efficiency** by about 130% compared to its predecessor, making data management simple and efficient.

DS920+ comes with two built-in **M.2 SSD slots** that support **Synology SSD Cache technology**, allowing you to reduce random I/O response time 20 times compared with mechanical drives without occupying front drive bays. You can add five more drives with Synology DX517 for higher storage capacity<sup>1</sup>.

# **On-premises Collaboration & Synching Solution**

DS920+ comes with **Synology Collaboration Suite**, the productivity and file sharing solution that powers team collaboration while leveraging the advantages of the private cloud to fully control data and prevent data leaks -- through HTTPS support, a built-in firewall, and multiple IP and account intrusion auto-blocking mechanisms.

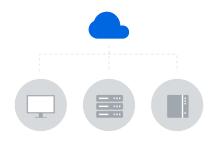
- **Synology Drive** enables data synchronization and backup via web portal and desktop applications across Windows®, macOS®, and Linux® platforms. Intelliversioning saves historical versions while minimizing storage space use and supports on-demand data restoration.
- **Synology Office** includes Documents, Spreadsheets, and Slides. Its online editing environment allows multiple users to edit, comment, and share company data simultaneously -- at no additional license fee.
- Synology MailPlus is a reliable mail server, accessible through an intuitive web-based client, that helps users to manage emails and increase productivity. MailPlus supports deployment in High-Availability clusters.
- Synology Chat enables instant conversations and optimizes team communications with powerful features including message encryption, pinning, forwarding, reminders, and scheduling.





#### **Next-Generation File System**

Btrfs is a modern file system designed to safeguard data integrity through metadata mirroring, file self-healing, and fast snapshot replication.



#### Synology Backup Suite

A centralized, integrated, and license-free backup solution to protect every bit of your data.

# Establish a Strong Storage Foundation with Btrfs

DS920+ features a **Btrfs file system** optimized by Synology to offer you high reliability and high performance. Btrfs supports advanced storage technologies that meet the needs of modern business:

- Advanced snapshot technology provides schedulable and near-instantaneous data protection of shared folders and LUNs.
- **File and folder level data restoration** offers users who wish to restore only a specific file or folder more flexibility.
- Flexible Shared Folders and User Quota System provide comprehensive quota control on all user accounts and shared folders.
- File self-healing allows Btrfs file systems to auto-detect corrupted files using mirrored metadata and to recover broken data using RAID configurations.
- **Inline compression** compresses data before writing them to the drive, to optimize storage use and reduce write commands to the drives.

# **Powerful Backup Tools**

DS920+ offers users a range of backup solutions for cloud and physical, on-premises environments. Backing up and restoring data is effortless – and completely free of licenses on compatible NAS models.

- Back up your cloud data: Cloud Sync enables users to seamlessly back up or synchronize data between a local Synology NAS and other cloud services.
- Back up your PCs and servers: Synology Drive Client backs up your Windows®, Mac®, and Linux® desktop devices to safeguard important computer files.
- Back up your Synology NAS: **Hyper Backup** offers a wide range of destinations for backups of your NAS, including on-premises and cloud.





#### Always On Guard

Protect your home and office with Synology's reliable and intuitive security solution. Surveillance Station combines intelligent monitoring and video management tools to safeguard your valuable assets.



#### Virtualization-Ready Platform

Synology's native hypervisor, Virtual Machine Manager, allows you to manage multiple virtual machines on your DS920+ and run Windows®, Linux®, and Virtual DSM applications on your Synology NAS.

## **Automated Video Surveillance System**

With Synology Surveillance Station, DS920+ can act as a full-featured video surveillance system. Simply add network-connected cameras and you can monitor their live feeds, play back recordings, and receive instant event alerts right away<sup>4</sup>.

- Works with more than 7,300 IP cameras: Pick any compatible model that suits your requirements and budget, or use the LiveCam app to turn an old smartphone into an IP camera.
- No subscription fee: Unlike security cameras that require monthly cloud storage subscription, all your recordings are stored on the DS920+, 100% under your control.
- **Remote monitoring & control:** Access your surveillance system from a web browser, the desktop client, or the DS cam mobile app anytime, anywhere.
- Automation & notification: Set up rules to trigger specific actions
  when predefined events occur, such as automatically taking snapshots
  when motion is detected. Get notified by email, SMS, or push
  notification so that you can intervene in time.

# **Running & Protecting Virtual Machines**

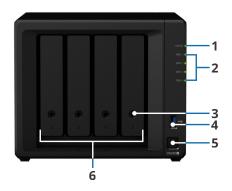
Synology Virtual Machine Manager (VMM) is an intuitive hypervisor application that lets users easily set up virtual machines and run operating systems including Windows®, Linux®, and Virtual DSM. With VMM, users can build up a cluster environment with multiple Synology systems while keeping the flexibility to scale out online and migrate virtual machines for load balancing and resource allocation. Disaster recovery features including instant snapshot, replication, cloning, restore and failover help you fully protect each virtual machine and safeguard your digital assets at no additional cost.

**VMM Pro** licenses give access to advanced features including remote replication, remote storage migration, high availability and live migration, helping users further minimize the risk of service downtime and manage IT resources with maximum flexibility.



# **Hardware Overview**

Front Rear





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	System fan	12	Kensington Security Slot

# **Technical Specifications**

### Hardware

CPU	Intel Celeron J4125 4-core 2.0 GHz, burst up to 2.7 GHz
Hardware encryption engine	Yes (AES-NI)
Memory	4 GB DDR4 onboard (expandable up to 8 GB) <sup>5</sup>
Compatible drive type	<ul> <li>4 x 3.5" or 2.5" SATA HDD/SSD (drives not included)</li> <li>2 x M.2 2280 NVMe SSD (drives not included)</li> </ul>
Hot swappable drive	Yes
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	2.24 kg
LAN	2 x Gigabit (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	100 V to 240 V AC
Power frequency	50/60 Hz, 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	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>6</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 single volume size: 108 TB</li> <li>Maximum system snapshots: 65,536<sup>7</sup></li> <li>Maximum internal volume: 64</li> </ul>
SSD cache	<ul><li>Read/write cache support</li><li>M.2 NVMe SSD support</li></ul>
File sharing capability	<ul> <li>Maximum local user account: 2,048</li> <li>Maximum local group: 256</li> <li>Maximum shared folder: 512</li> <li>Maximum concurrent SMB/NFS/AFP/FTP connection: 1,000</li> </ul>
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, shared folder encryption, 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, macOS® 10.12 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**

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File Server & Synchronization						
Synology 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: 500,000  • Maximum number of concurrent connections for PC clients: 600					
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					
Presto File Server <sup>8</sup>	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	<ul> <li>Maximum iSCSI target: 128</li> <li>Maximum iSCSI LUN: 256</li> <li>iSCSI LUN clone/snapshot support</li> </ul>					
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, Synology Drive Client desktop application Shared folder sync - maximum task number: 16					
Snapshot Replication	<ul><li>Maximum of shared folder snapshots: 1,024</li><li>Maximum of Replication: 32</li></ul>					
Synology High Availability	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	on
Collaboration tools	Collaborate with instant message service Synology Chat, online editor Synology Office, and scheduling assistant Synology Calendar  Chat maximum users: 1,500  Office maximum users: 3,400  Calendar: support CalDAV and access via mobile devices
Note Station	Rich-text note organization and versioning, encryption, sharing, media embedding and attachments
Synology 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)
Synology MailPlus	Intuitive webmail interface for Synology 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
Central Management System	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, Synology MailPlus, Synology Chat, Synology LiveCam, Moments, DS audio, DS photo, DS video, DS cam, DS file, DS finder, DS note
Other packages	Additional 3rd-party packages available on Package Center
Environment and Packagi	ing
Environment safety	RoHS compliant
Package content	<ul> <li>DS920+ main unit x 1</li> <li>Quick Installation Guide x 1</li> <li>Accessory pack x 1</li> <li>AC power adapter x 1</li> <li>AC power cord x 1</li> <li>RJ-45 LAN cable x 2</li> </ul>
Optional accessories <sup>9</sup>	<ul> <li>DDR4 non-ECC SO-DIMM 4 GB (D4NESO-2666-4G)</li> <li>Synology Expansion Unit DX517</li> <li>VisualStation VS360HD, VS960HD</li> <li>Surveillance Device License Pack</li> <li>Synology MailPlus License Pack</li> <li>Virtual DSM License Pack</li> </ul>

- ${\bf *Model \ specifications \ are \ subject \ to \ change \ without \ notice. \ Please \ refer \ to \ www.synology.com \ for \ the \ latest \ information.}$
- 1. DS920+ supports up to one Synology Expansion Unit DX517, sold separately.

3 years<sup>10</sup>

2. Performance figures are based on the average percentage improvement of DS920+ relative to its predecessor, as tested at Synology labs. Test items include file indexing in Synology Drive and photo indexing in Moments.



Warranty

- 3. Performance figures may vary depending on environment, usage, and configuration.
- 4. Licenses may need to be purchased depending on the use case. To learn more, visit https://www.synology.com/products/Device\_License\_Pack
- 5. DS920+ comes with 4 GB DDR4 onboard and can support up to 8 GB by adding one optional DDR4 non-ECC 4 GB SO-DIMM.
- 6. exFAT Access can be purchased separately in Package Center.
- 7. System snapshots include snapshots taken by iSCSI Manager, Snapshot Replication, and Virtual Machine Manager. Availability of these packages varies by model.
- 8. Presto File Server license can be purchased separately in Package Center.
- 9. Please refer to www.synology.com/compatibility for the latest optional accessories list.
- 10. The warranty period starts from the purchase date as stated on your receipt of purchase. Visit https://www.synology.com/company/legal/warranty for more information.

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