

# DiskStation

# DS1517+



Synology DiskStation DS1517+ features a quad-core processor with AES-NI hardware encryption engine, providing outstanding performance even with encryption. Supercharge your storage with the optional M.2 SSD adapter card for dual SSD cache drives. DS1517+ is the ideal storage solution for centralizing data backups, protecting critical assets, and sharing files across different platforms. Synology DS1517+ is backed with Synology's 3-year limited warranty.

## High Performance & Easy-to-Scale

Synology DS1517+ is a 5-bay network attached storage solution with great performance and scalability. DS1517+ is equipped with an **Intel quad-core 2.4 GHz** processor and two memory options: **2GB** or **8GB**, with the flexibility to expand up to **16GB** for even more intensive workloads. With **dual-channel** memory design, it provides outstanding sequential throughput at over **1,165 MB/s** reading and **527 MB/s** writing under a RAID 5 configuration with 10GbE Link Aggregation enabled<sup>1</sup>.

DS1517+ supports up to 15 drives with two Synology DX517<sup>2</sup> Expansion Unit attached, allowing you to start small and easily to scale up on demand. The PCIe slot supports the optional **PCIe M.2 SSD adapter card M2D17<sup>3</sup>** for **dual M.2 SATA SSD slots** to be used as SSD cache for greatly enhanced storage performance without using the 3.5" drive bays. The PCIe slot can also be used to upgrade the DS1517+ with 10GbE network add-in-cards.

## Btrfs: Next Generation Storage

DS1517+ integrates the **Btrfs** file system, bringing the most advanced storage technologies to meet the management needs of modern large-scale businesses:

- **Flexible Shared Folder / User Quota System** provides comprehensive quota control on all user accounts and shared folders.
- **Advanced snapshot technology** with customizable backup schedule allows up to **1,024** copies of shared folder backups and **65,000** copies of system-wide snapshots without occupying huge storage capacity and system resources.
- **File or folder level data restoration** brings huge convenience and saves time for users who wish to restore only a specific file or folder.
- **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 RAID 1, 5, 6, and 10.

## Highlights

- Quad-core 5-bay NAS with AES-NI support, with over 1,165 MB/s reading and 527 MB/s writing performance<sup>1</sup>
- PCIe slot for optional 10GbE add-on card. Four 1GbE (RJ-45) ports with failover and Link Aggregation support.
- Optional M2D17 adapter card for dual M.2 SATA SSDs for cache<sup>3</sup>
- Two memory configurations: 2GB & 8GB with easily upgradable dual-channel design, up to 16GB
- Advanced Btrfs file system offering 65,000 system-wide snapshots and 1,024 snapshots per shared folder
- Scale up to 15 drives with two DX517 expansion units

## Virtualization Ready

DS1517+ provides seamless storage solutions for virtualization environments, including **VMware**, **Citrix**, **Hyper-V**, and **OpenStack**. With **VMware vSphere 6** and **VAAI** integration certified, DS1517+ helps offload specific storage operations and optimizes computation power for unparalleled performance and efficiency in VMware environments. As the centralized storage of a virtual environment, DS1517+ enables virtual machine migration, allowing movement from server to server whilst eliminating service downtime and disruption to users. **Windows Offloaded Data Transfer (ODX)** and **Synology Advanced LUN** support greatly improve the efficiency of massive data transfer and migration. With **OpenStack** support, DS1517+ can be used as a block-based storage component for servers complying with the **Cinder API**.



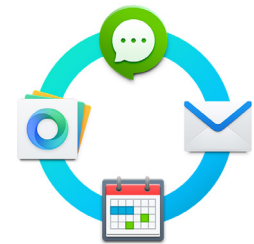
### Virtualization Ready

Synology DS1517+ is an optimized and certified storage solution for a various virtualization environments.

## Comprehensive Business Applications

Powered by the innovative Synology **DiskStation Manager (DSM)**, DS1517+ comes fully-equipped with applications and features designed specifically for large-scale business:

- **Windows® AD and LDAP** support allow easy integration with existing business directory services without recreating user accounts.
- **Windows ACL** support provides fine-grained access control and efficient privilege settings, allowing DS1517+ to fit seamlessly into current infrastructure.
- **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
- Powerful **collaboration suite** with Synology **Office**, **Calendar** and **Chat** for secure and high-performance private communications and content organization that your organization can easily manage and control.



### Synology Collaboration Suite

Powerful and secure private cloud solution for business collaboration and organization with simple but effective management options.

## Robust Scalability

Management of the storage space on DS1517+ is simple and flexible. **Multiple Volumes on RAID** allows you to create more than one volume on a RAID structure, providing a flexible and efficient way to manage your storage across all available hard drives. When the need for more space arises, the volume can be easily expanded without any service disruption. DS1517+ provides the ability to seamlessly expand a single volume up to **108 TB** on the fly. When the storage capacity of DS1517+ nears its limit, expansion is easily accomplished with up to two **Synology Expansion Unit DX517** to support up to 15 SATA drives.

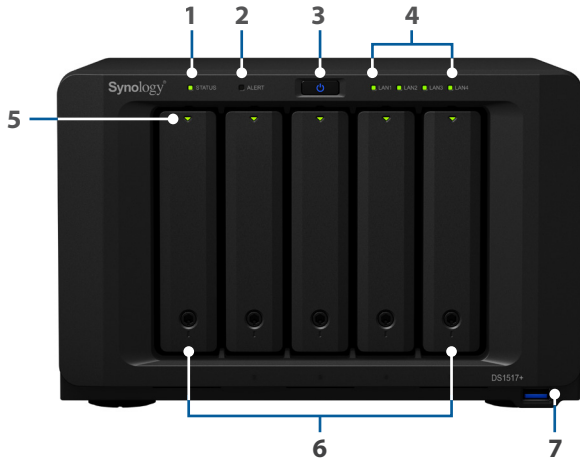
## Reliability, Availability & Disaster Recovery

System reliability is of paramount importance to businesses which depend upon their commercial servers every day. DS1517+ responds to these concerns with wide-ranging availability and redundancy features:

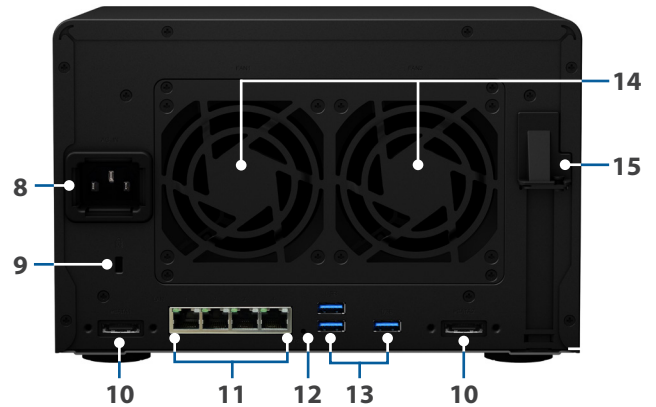
- **Synology High Availability** ensures seamless transition between clustered servers in the event of server failure with minimal impact on applications.
- **Snapshot Replication** provides schedulable, near-instantaneous data protection, ensuring business documents in shared folders, virtual machines 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.

# Hardware Overview

Front



Rear



1	Status indicator	2	Alert indicator	3	Power button	4	LAN indicator
5	Drive status indicator	6	Drive tray	7	USB 3.0 port	8	Power port
9	Kensington Security Slot	10	eSATA port	11	1GbE RJ-45 port	12	RESET button
13	USB 3.0 port	14	Fan	15	PCIe expansion slot		

# Technical Specifications

## Hardware

CPU	Intel Atom C2538 Quad Core 2.4GHz
Hardware encryption engine	Yes (AES-NI)
Memory	2 GB / 8 GB (4 GB x 2) DDR3 SO-DIMM (expandable up to 16 GB)
Compatible drive type	<ul style="list-style-type: none"> <li>• 5 x 3.5" or 2.5" SATA SSD / HDD (drives not included)</li> <li>• 2 x M.2 2280/2260/2242 SATA SSD<sup>3</sup> (drives not included)</li> </ul>
External ports	<ul style="list-style-type: none"> <li>• 4 x USB 3.0 ports</li> <li>• 2 x eSATA ports</li> </ul>
Size (HxWxD)	166 x 250 x 243 mm
Weight	4.46 kg
LAN	4 x 1GbE (RJ45)
Wake on LAN/WAN	Yes
PCIe 2.0 slot	<ul style="list-style-type: none"> <li>• 1 x 4-lane x8 slot</li> <li>• 10GbE network interface cards support</li> <li>• M.2 SATA SSD adapter card support</li> </ul>
Scheduled power on / off	Yes
System fan	2 (80 x 80 x 20 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	3,048 m (10,000 ft)

## General

Networking protocol	CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)
File system	<ul style="list-style-type: none"><li>Internal: Btrfs, ext4</li><li>External: Btrfs, ext4, ext3, FAT, NTFS, HFS+, exFAT<sup>4</sup></li></ul>
Storage management	<ul style="list-style-type: none"><li>Maximum single volume size: 108TB</li><li>Maximum internal volumes: 512</li><li>Maximum iSCSI target: 32</li><li>Maximum iSCSI LUN: 256</li><li>iSCSI LUN clone / snapshot support</li></ul>
Supported RAID type	Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, RAID 10
File sharing capability	<ul style="list-style-type: none"><li>Maximum local user account: 2,048</li><li>Maximum local group: 256</li><li>Maximum shared folder: 512</li><li>Maximum concurrent CIFS / AFP / FTP connection: 512 (2GB) / 2,048 (8GB)</li></ul>
Privilege	Windows Access Control List (ACL)
Virtualization	VMware vSphere® 6, Microsoft Hyper-V®, Citrix®, OpenStack®
Directory service	Windows® AD integration: Domain users login via Samba (CIFS) / AFP / FTP / File Station, LDAP integration
Security	FTP over SSL / TLS, IP auto-block, firewall, encrypted network backup over Rsync, HTTPS connection
Utilities	Synology Web Assistant, Cloud Station Drive, Cloud Station Backup, Cloud Sync Decryption Tool, Surveillance Station Client, Evidence Integrity Authenticator, Photo Station Uploader, Snapshot Manager for VMware, Snapshot Manager for Windows, NFS Plug-in for VMware VAAI
Supported clients	Windows 7 onwards, Mac OS X® 10.10 onwards
Supported browsers	Chrome®, Firefox®, Internet Explorer® 9 onwards, Safari® 8 onwards; Safari (iOS 7 onwards), Chrome (Android™ 4.0 onwards) on tablets
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

## 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
Backup solutions	Network backup; local backup; desktop backup; configuration backup; OS X Time Machine; backup data to public cloud; shared folder sync - maximum task number: 8
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
Security Advisor	Malware detection / removal; user account / password, network, system-related security scan
iOS / Android™ applications	DS cloud, DS file, DS finder, DS cam, DS note, MailPlus
Windows Phone® applications	DS file, DS finder

## Add-on Packages

Antivirus Essential	Full system scan, scheduled scan, white list customization, virus definition auto update
Cloud Station Server	Maximum concurrent file transfers: 1,024, retain historical and deleted file versions
Cloud Sync	One or two-way synchronization with public cloud storage providers including Amazon Cloud Drive, Amazon S3-compatible storage, Baiduyun, Box, Dropbox, Google Cloud Storage, Google Drive, hubiC, Megafon Disk, Microsoft OneDrive, OpenStack Swift-compatible storage, WebDAV servers, Yandex Disk
Log Center	SSL connection, log rotation: 6 months, 1 year, 2 years, 3 years, email notification
MailPlus	Intuitive webmail interface for MailPlus Server; customizable mail labels, filters, and user interface
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)
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
Surveillance Station	Maximum IP camera: 40 (total of 1,200 FPS at 720p, H.264) (Includes two free camera licenses; additional cameras require the purchasing of additional licenses)
VPN Server	Maximum connections: 20; supported VPN protocol: PPTP, OpenVPN™, L2TP
Web Station	Virtual host (up to 30 websites), PHP / MariaDB®, 3rd-party applications support
Other packages	Photo Station, Audio Station, iTunes® Server, additional 3rd-party packages are available on Package Center

## Environment and Packaging

Environment safety	RoHS compliant
Package content	<ul style="list-style-type: none"><li>• DS1517+ main unit x 1</li><li>• Quick Installation Guide x 1</li><li>• Accessory pack x 1</li><li>• AC power cord x 1</li><li>• RJ-45 LAN cable x 2</li></ul>
Optional accessories	<ul style="list-style-type: none"><li>• 16 GB (8 GB x 2) DDR3 ECC SO-DIMM kit (RAM1600DDR3L-8GBx2)</li><li>• 8 GB (4 GB x 2) DDR3 ECC SO-DIMM kit (RAM1600DDR3L-4GBx2)</li><li>• Synology E10G17-F2 / E10G15-F1 10Gbps Ethernet adapters</li><li>• Synology M2D17 M.2 SSD adapter card</li><li>• Synology Expansion Unit DX517</li><li>• Synology VS360HD</li><li>• Surveillance Device License Pack</li></ul>
Warranty	3 years

\*Model specifications are subject to change without notice. Please refer to [www.synology.com](http://www.synology.com) for the latest information.

1. Performance figures are tested with optional 10GbE Ethernet adapters and may vary depending on environment, usage, and configuration.
2. DS1517+ supports up to two Synology DX517, sold separately.
3. DS1517+ supports dual M.2 SATA SSD through M2D17 adapter card, sold separately.
4. 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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