Synology

DiskStation
DS1618+

Synology DiskStation DS1618+ is a versatile, compact, yet powerful 6-bay NAS equipped with quad-core processor, designed for small- and medium-sized businesses. It comes with advanced computing applications to meet businesses' demands and supercharges your storage with the optional M.2 SSD adapter card for dual SSD cache drives. DS1618+ is ideal to serve as a centralized file server for simplifying data management and protecting critical assets. Synology DS1618+ is backed with Synology's 3-year limited warranty.

High-performance Scalable Storage Server

Synology DS1618+ is a 6-bay network attached storage solution with great performance and scalability. DS1618+ supports up to 16 drives with two Synology **DX517**[3] expansion units, allowing you to start small and easily scale up on demand. In addition to **10GbE add-on card**, which can upgrade the network capacity of DS1618+, the PCIe slot also supports the optional **SATA M.2 SSD adapter card** to function as SSD cache for greatly enhancing storage performance without using the 3.5" drive bays.

DS1618+ is equipped with a **quad-core** processor and **4GB DDR4 memory (expandable up to 32GB)**. With Link Aggregation enabled, DS1618+ delivers outstanding sequential throughput performance at over **2,030 MB/s reading** and **620 MB/s writing**[1].

Btrfs: Next Generation Storage Efficiency

DS1618+ 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 6-bay NAS optimized for data-intensive work environment
- Quad-core, 2.1 GHz CPU with AES-NI support and 4GB DDR4 memory, expandable up to 32GB
- Outstanding performance at over 2,030 MB/s reading and 620 MB/s writing[1]
- Boost IOPS system performance with M.2 SSD cache by using optional M2D17 adapter card[2]
- PCIe 3.0 slot for optional 10GbE add-on card
- Four built-in 1GbE (RJ-45) ports with failover and Link Aggregation support
- Advanced Btrfs file system offering 65,000 system-wide snapshots and 1,024 snapshots per shared folder

Cross-platform File Sharing

DSM, the operating system running on all Synology NAS, provides fast and secure ways to share your critical digital assets. **Synology Drive** unifies multiple file portals on Synology NAS and greatly simplifies data management. You can share files to anyone, and customize access permissions for optimal security. **Synology Drive** makes it easy to share files across multiple platforms — whether it's Windows®, Mac®, and Linux® computers or mobile devices.

Ultimate Backup Solution

DS1618+ 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. DS1618+ 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, a public cloud service, or **C2 Backup** to ensure data safety.
- Server Backup: **Active Backup for Server** provides an agentless backup solution. It centralizes data from Windows and Linux servers through SMB and rsync to effectively minimize deployment and management costs.
- SaaS Backup: **Active Backup for Office 365/G Suite** is an on-premise backup solution for public clouds with a centralized dashboard. Optimize storage efficiency with single instancing and block-level deduplication technology.

Effortless Virtualization Environment

Synology's **Virtual Machine Manager** adds unlimited 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 DS1618+ with reduced hardware deployment and maintenance costs.

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 offload storage operations and optimizes computation efficiency. **Windows Offloaded Data Transfer (ODX)** speeds up data transfer and migration rates, while **OpenStack Cinder** support turns your Synology NAS into a block-based storage component.

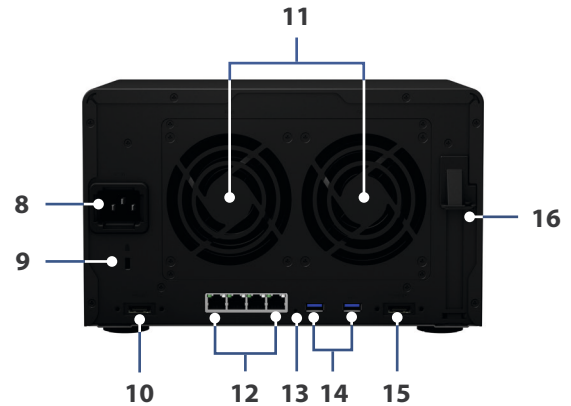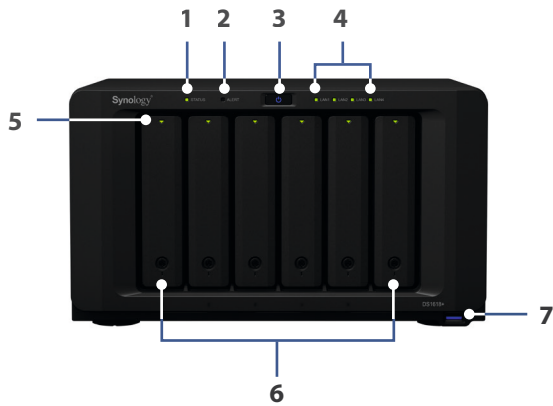## Reliability, Availability & Disaster Recovery

System reliability is of paramount importance to businesses which depend upon their commercial servers every day. DS1618+ responds to these concerns with wide-ranging availability and redundancy features:

- **Synology High Availability** Manager ensures seamless transitioning between clustered servers with minimal impact to applications, preventing unexpected interruptions and costly downtime.
- **Redundant system fans** and **network ports** with failover support ensure maximum continuous service uptime.
- High reliability system design including **fan-less CPU heat-sink** and passive cooling technology, preventing single points of failure.
- **Optional 5-year warranty**[4] is available in select regions.

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.

Virtual Machine Manager

Virtual Machine Manager implements various virtualization solutions, allowing you to manage multiple virtual machines on your DS1618+, including **Windows**, **Linux**, and **Virtual DSM**.

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	Fan	12	1GbE RJ-45 port
13	RESET button	14	USB 3.0 port	15	eSATA port	16	PCIe expansion slot

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 (expandable up to 32 GB with 16 GB ECC SO-DIMM x 2)
Compatible drive type	• 6 x 3.5" or 2.5" SATA SSD/HDD (drives not included) • 2 x M.2 2280/2260/2242 SSD² (drives not included)
External port	• 3 x USB 3.0 port • 2 x Expansion port
Size (HxWxD)	• 166 x 282 x 236 mm • 166 x 282 x 243 mm (with server ears)
Weight	5.05 kg
LAN	4 x 1GbE (RJ-45)
Wake on LAN/WAN	Yes
PCIe 3.0 slot	• x8 slot x 1 (4-lane) • 10GbE network interface cards support • M.2 SSD adapter card support
Scheduled power on/off	Yes
System fan	2 (92 x 92 x 32 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	3,048 m (10,400 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[5]
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: 108 TB • Maximum of system snapshots: 65,536[6] • Maximum internal volumes: 512 • Maximum iSCSI targets: 32 • Maximum iSCSI LUNs: 256 • iSCSI LUN clone/snapshot support
SSD cache	• Read-write cache support • M.2 SSD support
File sharing capability	• Maximum local user accounts: 2,048 • Maximum local groups: 256 • Maximum shared folders: 512 • Maximum concurrent SMB/NFS/AFP/FTP connections: 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, 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® 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
Drive	• Maximum Number of Synced Files: 1,000,000 / single file reaction time 437 ms • Maximum Number of Concurrent Connections for PC Clients: 550
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	• Maximum shared folder snapshots: 1,024 • Maximum replications: 32
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	• Chat maximum users: 1,500 • Office maximum users: 1,800 • Calendar: support CalDAV and access via mobile devices
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®, 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

Environment and Packaging

Environment safety	RoHS compliant
Package content	• DS1618+ main unit x 1 • Quick Installation Guide x 1 • Accessory pack x 1 • AC power cord x 2 • 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 E10G17-F2 / E10G15-F1 10Gbps Ethernet adapters • Synology M2D17 M.2 SSD adapter card • Expansion Unit DX517 • VisualStation VS360HD, VS960HD • Surveillance Device License Pack • MailPlus License Pack • Virtual DSM License Pack
Warranty	3 years[7]

*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. DS1618+ supports dual M.2 SSD through M2D17 adapter card, sold separately.
3. DS1618+ supports up to two Synology DX517, sold separately.
4. 5 year warranty is available as an optional bundle with EW201, 2-year Extended Warranty service add-on. Visit https://www.synology.com/en-global/products/Extended_Warranty for more information on availability.
5. exFAT Access is purchased separately in Package Center.
6. System snapshot includes snapshots taken by iSCSI Manager, Snapshot Replication, and Virtual Machine Manager. Availability of these packages varies by model.
7. 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 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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