



# DiskStation DS1621+



## Data management and protection, for anyone

Synology DiskStation DS1621+ is a powerful 6-bay network-attached storage solution designed to store and protect critical data assets. The growing amount of unstructured data requires smarter and increasingly higher performance methods of storing, accessing, and sharing. DS1621+ is a compact desktop form-factor NAS that is beyond evolutionary, featuring over 110K, or 174% higher 4K random read IOPS<sup>1</sup>, compared to its predecessor. Designed for scalability, the DS1621+ enables you to start small, then expand as your data grows.

### Highlights

- **Accelerated Performance**  
174% higher 4K random read IOPS and 76% faster sequential write speeds compared to its predecessor<sup>1</sup>
- **Maximize Performance**  
Turbocharge HDD arrays by 20x or more<sup>2</sup> without occupying drive bays using dual built-in M.2 slots for NVMe SSD cache<sup>3</sup>
- **Easy Expansion**  
Scale-up on-demand to 16 drives with two DX517 expansion units<sup>4</sup>
- **Includes Everything to Protect Your Data**  
Back up critical data to and from public clouds, Windows PCs and servers, virtual machines, and data on the NAS with Synology Active Backup suite, Hyper Backup, and Snapshot Replication
- **Ready for 10GbE**  
Add in a 10GbE SFP+ or RJ-45 NIC to instantly increase network bandwidth based on your existing infrastructure<sup>5</sup>

## Versatility and Raw Power in a Single Solution

Synology DS1621+ can be a multi-purpose powerhouse, suitable for a wide range of usage environments. The compact, 11.5L desktop form-factor makes it easy to store away whether it is at home or in a quiet office environment.

- Up to **110,000** 4K random read IOPS and **2300 MB/s** sequential write speeds<sup>1</sup> for demanding workloads
- Dual **M.2 2280 slots for NVMe SSD** lets you maximize performance and capacity efficiently<sup>3</sup>
- Supports up to **96 TB** raw capacity internally, and can be expanded using two Synology DX517 expansion units for up to **256 TB**<sup>6</sup>
- Powered by [Synology DSM](#), our unified data management operating system



### 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.*

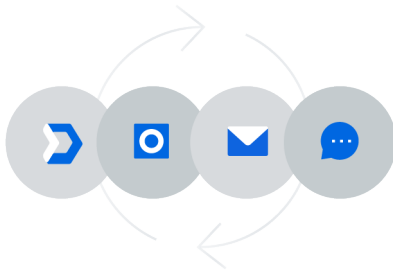
## Robust Data Protection with Btrfs

DS1621+ uses the [Btrfs](#) file system optimized by Synology to offer both 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** provides 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 it to the drive, to optimize storage use and reduce write commands to the drives

## On-Premises Collaboration

Synology Collaboration Suite allows businesses to host their own fundamental IT services for file sharing, concurrent document editing, emails, instant messaging, and more. Create a multi-user collaborative environment while leveraging private cloud infrastructure to reduce privacy concerns. Multi-layered security enables secure access to files and services, even for a distributed or remote workforce across Windows®, macOS®, Linux®, Android™, and iOS platforms.



## Synology Collaboration Suite

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

- [Synology Drive](#) enables data access, synchronization, and backup via web portal and desktop applications across Windows®, macOS®, and Linux® platforms. Intelliversioning saves historical versions while minimizing storage space usage and supports on-demand data restoration.
- [Synology Office](#) includes Documents, Spreadsheets, and Slides. The online collaborative editing environment allows multiple users to edit, comment, and share data together.
- [Synology MailPlus](#)<sup>7</sup> enables you to setup a secure, reliable, and private email server, with an intuitive web-based client to boost productivity
- [Synology Chat](#) enables instant conversations and optimizes team communications with powerful features including message encryption, pinning, forwarding, reminders, and scheduling.
- [Synology Calendar](#) helps teams keep track of what's important, with easy to use sharing and scheduling functionality, keeping everyone on the same page.

## Running & Protecting Virtual Machines



### Virtualization Flexibility

*Whether providing VM storage through iSCSI, NFS, or running them directly on the DS1621+ using Virtual Machine Manager, Synology DSM provides comprehensive tools to protect your virtual machines.*

[Synology Virtual Machine Manager \(VMM\)](#) is a hosted hypervisor that lets users easily set up virtual machines running Windows® or Linux® based platforms and a virtualized version of Synology DSM, Virtual DSM, on the DS1621+. Using VMM, users can build up a cluster environment with multiple Synology systems for flexibility to perform online migration based on load balancing and resource allocation requirements. High performance snapshots, replication, cloning, and recovery mechanisms enable comprehensive management and data protection on each VM<sup>8</sup>.

DSM also simplifies the provisioning and management of storage for virtual machines. Certified for VMware® vSphere™, Microsoft® Hyper-V®, Citrix® XenServer™, and OpenStack, Synology systems can integrate with your virtualization platform of choice through iSCSI or NFS protocols. Install Synology Storage Console for VMware/Windows for additional management convenience and functionality right in the hypervisor.

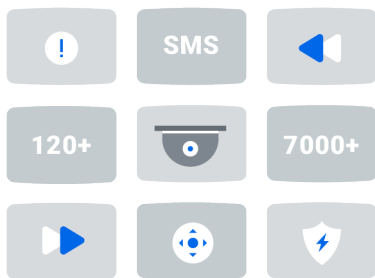
## Comprehensive Data Protection Options

DS1621+ includes a range of backup solutions to protect local, remote, and cloud-based deployment environments, all-inclusive with the device. Easily set up automated backups and even enable self-serve functionality



## Synology Backup Solutions

*DSM backup solutions are designed to be low-maintenance, with different RPO/RTO targets, storage efficiency, and backup destinations available depending on your requirements.*



## Always On Guard

*Protect your home or office with Synology's reliable and intuitive VMS solution. Surveillance Station combines intelligent monitoring and robust management features for flexible deployment scenarios.*

for reduced maintenance and upkeep.

- **Back up data on Synology NAS:** [Snapshot Replication](#) enables lightning-fast snapshots for point-in-time file versioning, great for rolling back unintended file modifications and protecting your data against ransomware attacks. [Hyper Backup](#) offers a wide range of destinations for backups of your NAS, including for both local and remote on-premises and cloud storage providers.
- **Back up business infrastructure:** [Synology Active Backup suite](#) is a collection of powerful backup solutions built to protect Windows PCs and servers, VMware and Hyper-V VMs, other file servers, and even Google G Suite and Microsoft 365 SaaS clouds.

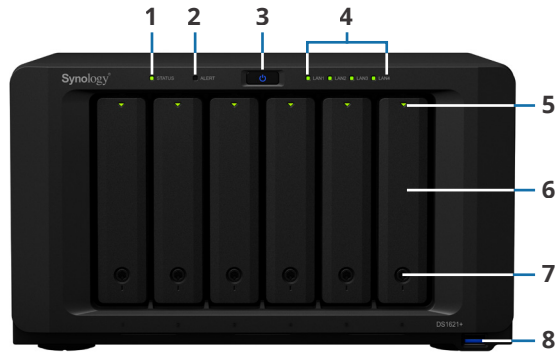
## Private Video Surveillance

With [Synology Surveillance Station](#), DS1621+ becomes a powerful VMS solution. With support for up to 40 IP cameras, you can easily cover large installations<sup>9</sup>.

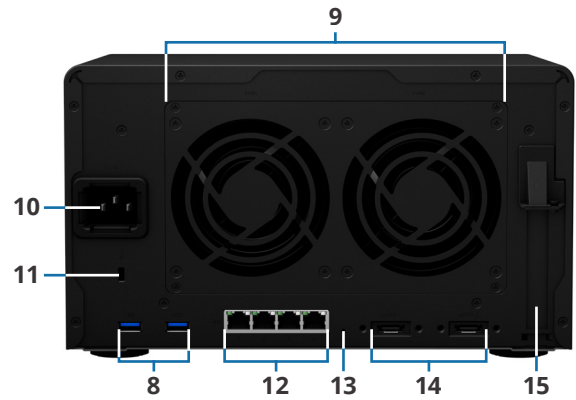
- **7,600 supported cameras, and counting:** Find a compatible camera from our constantly updated compatibility lists to match your video requirements and budget. ONVIF support prevents vendor lock-in.
- **Private and subscription-free:** Unlike cloud-based cameras, you can keep your recordings private and on-premises. Simple per-camera licensing with no subscriptions needed to access your data.
- **Flexible monitoring & control:** Access your surveillance system from a web browser, dedicated desktop clients, or from the DS cam mobile app. Internet-optional.
- **Automation & notification:** Set up rules to trigger specific actions when an event occur, such as automatically taking a picture when motion detection is triggered. Get notified by email, SMS, or push notification so that you can act quickly.

# Hardware Overview

Front



Rear



1	Status indicator	2	Alert indicator	3	Power button and indicator	4	LAN indicator
5	Drive status indicator	6	Drive tray	7	Drive tray lock	8	USB 3.2 Gen 1 port
9	System fan	10	Power port	11	Kensington Security Slot	12	1GbE RJ-45 port
13	Reset button	14	Expansion port	15	PCIe expansion slot		

## Technical Specifications

### Hardware

CPU	AMD Ryzen™ V1500B quad-core 2.2 GHz
Hardware encryption engine	Yes (AES-NI)
Memory	4 GB DDR4 ECC SODIMM (expandable up to 32 GB)
Compatible drive type <sup>10</sup>	<ul style="list-style-type: none"> <li>• 6 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 style="list-style-type: none"> <li>• 3 x USB 3.2 Gen 1</li> <li>• 2 x eSATA</li> </ul>
Size (HxWxD)	166 x 282 x 243 mm
Weight	5.1 kg
LAN port	4 x 1GbE RJ-45
Wake on LAN/WAN	Yes
PCIe 3.0 slot	<ul style="list-style-type: none"> <li>• 1 x 4-lane x8 slot</li> <li>• Supports 10GbE network interface cards</li> </ul>
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 style="list-style-type: none"><li>Internal: Btrfs, ext4</li><li>External: Btrfs, ext4, ext3, FAT32, NTFS, HFS+, exFAT<sup>11</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 style="list-style-type: none"><li>Maximum single volume size: 108TB</li><li>Maximum system snapshots: 65,536<sup>12</sup></li><li>Maximum internal volume: 64</li></ul>
SSD cache	<ul style="list-style-type: none"><li>Read/write cache support</li><li>M.2 NVMe SSD support</li></ul>
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 SMB/NFS/AFP/FTP connection: 1,000</li></ul>
Privilege	Windows® Access Control List (ACL), application privileges
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, ไทย, 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. <ul style="list-style-type: none"><li>Maximum number of hosted files: 1,000,000</li><li>Maximum number of concurrent connections for PC clients: 550</li></ul>
File Station	Virtual drives, remote folders, Windows® ACL editor, compressing/extracting archived files, bandwidth control for specific users/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>13</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 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 style="list-style-type: none"><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 data backup 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 style="list-style-type: none"><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

<b>Active Backup for Microsoft 365</b>	Supports Microsoft 365 OneDrive for Business, mail, contacts, and calendar backup and restoration
<b>Active Backup for Business</b>	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
<b>Productivity &amp; Collaboration</b>	
<b>Collaboration tools</b>	Collaborate with instant message service Synology Chat, online editor Synology Office, and scheduling assistant Synology Calendar <ul style="list-style-type: none"> <li>• Chat maximum user: 1,500</li> <li>• Office maximum user: 1,800</li> <li>• Calendar: support CalDAV and access via mobile devices</li> </ul>
<b>Note Station</b>	Rich-text note organization and versioning, encryption, sharing, media embedding and attachments
<b>Synology MailPlus Server</b>	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)
<b>Synology MailPlus</b>	Intuitive webmail interface for Synology MailPlus Server, customizable mail labels, filters, and user interface
<b>Multimedia</b>	
<b>Moments</b>	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
<b>Other packages</b>	Video Station, Photo Station, Audio Station, iTunes® Server
<b>Surveillance</b>	
<b>Surveillance Station</b>	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)
<b>All-in-One Server</b>	
<b>Synology Directory Server</b>	Provide a flexible and cost-effective domain controller solution
<b>Central Management System</b>	Provide a single interface to manage and monitor multiple Synology NAS
<b>VPN Server</b>	Maximum connection: 30. Supported VPN protocol: PPTP, OpenVPN™, L2TP/IPSec
<b>Mail Server</b>	Supported Mail Server protocol: POP3, SMTP, IMAP. LDAP/AD account support
<b>Mail Station</b>	Webmail interface for Mail Server to receive emails from multiple POP3 mailboxes, customizable SMTP server
<b>Web Station</b>	Virtual host (up to 30 websites), PHP/MariaDB®, 3rd-party applications support
<b>Other packages</b>	DNS Server, RADIUS Server, Log Center
<b>Others</b>	
<b>Storage Analyzer</b>	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
<b>Antivirus Essential</b>	Full system scan, scheduled scan, white list customization, virus definition auto update
<b>iOS/Android™ applications</b>	Synology Drive, Synology MailPlus, Synology Chat, Synology LiveCam, Moments, DS audio, DS photo, DS video, DS cam, DS file, DS finder, DS note
<b>Other packages</b>	Additional 3rd-party packages available on Package Center
<b>Environment and Packaging</b>	
<b>Environment safety</b>	RoHS compliant
<b>Package content</b>	<ul style="list-style-type: none"> <li>• 1 x DS1621+ main unit</li> <li>• 1 x Quick Installation Guide</li> <li>• 1 x Accessory pack</li> <li>• 1 x AC power cord</li> <li>• 2 x RJ-45 LAN cable</li> </ul>
<b>Optional accessories<sup>14</sup></b>	<ul style="list-style-type: none"> <li>• DDR4 ECC SO-DIMM: D4E501-4G/D4E501-8G/D4ECSO-2666-16G</li> <li>• 10GbE Network Interface Card: E10G18-T2/E10G18-T1/E10G17-F2</li> <li>• 2.5" SATA SSD: SAT5200</li> <li>• M.2 2280 NVMe SSD: SNV3400</li> <li>• Expansion Unit: DX517</li> <li>• VisualStation: VS960HD/VS360HD</li> <li>• Surveillance Device License Pack</li> <li>• MailPlus License Pack</li> <li>• Virtual DSM License Pack</li> </ul>
<b>Warranty</b>	3 years <sup>15</sup>

\*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 obtained through internal testing by Synology. Actual performance may vary depending on the testing environment, usage, and configuration. Comparisons are done against the DS1618+ under specific testing conditions.
2. SSD Cache performance gains are based off random read and write 4KB IOPS for HDD arrays with and without SSD Cache.
3. SSD cache can be enabled without occupying 3.5" drive bays by installing Synology SNV3400 M.2 2280 NVMe SSD drives, sold separately, or by using a [compatible drive](#).
4. DS1621+ supports up to two Synology DX517 expansion units, sold separately.
5. Requires a supported NIC, Synology E10G17-F2, E10G18-T1, E10G18-T2, or other [compatible models](#).
6. Raw storage capacity is calculated based on decimal terabytes using 16TB hard drives. Actual usable storage capacity will depend on Storage Pool configuration, file system configurations, and how storage units are displayed.
7. 5 MailPlus licenses are included, licenses required for additional user accounts. [Learn more](#) about licenses.
8. Certain advanced features require [Virtual Machine Manager Pro](#). 1 [Virtual DSM license](#) is included, licenses are required for running additional instances.
9. Surveillance Station includes 2 free licenses. Connecting more cameras and devices requires [additional licenses](#).
10. Check our [compatibility list](#) for validated drives to ensure system stability.
11. exFAT Access can be purchased separately through the DSM Package Center.
12. System snapshots include snapshots taken by iSCSI Manager, Snapshot Replication, and Virtual Machine Manager. Availability of these packages varies by model.
13. Presto File Server license can be purchased separately through the application.
14. Please refer to [compatibility list](#) for the latest optional accessories list.
15. 5-year warranty is available as an optional add-on with [EW201](#), a 2-year warranty extension. Available only in select regions. The warranty period starts from the purchase date as stated on your purchase receipt. [Learn more](#) about our limited product warranty policy.

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