Synology[®]

Synology NAS DS1621xs+



On-Premises Cloud Solution Built for Performance

Synology DiskStation DS1621xs+ is a highend, high-performance NAS solution that supports every aspect of your business with powerful data management, collaboration, and networking tools topped off with wellrounded data protection mechanisms in a 6-bay desktop chassis. Built-in M.2 SSD cache slots, 10GbE connectivity, scalable storage, and Synology 5-year limited warranty make DS1621xs+ a future-proof choice to build onpremises cloud infrastructure.

Highlights

- Built for High-Speed Connectivity
 Combine built-in 10GbE and optional high-speed NIC
 for over 3,100 MB/s sequential read performance¹
- Boost Performance With SSD Cache Built-in M.2 2280 NVMe SSD slots permit cache acceleration without using storage drive bays
- Flexibly Expand Storage Size Flexibly scale up to 16 drives² to increase storage capacity as demand grows
- Collaboration and Productivity Suite Build an on-premises, multi-user collaboration environment with fine-grained controls
- Protect and Restore Data in a Snap Back up critical data and reduce your Recovery Time Objective (RTO) with Snapshot Replication
- Leverage Native Virtualization Tools Use virtualization storage tools to complete your SAN or run virtual machines on a full-featured hypervisor
- Fully Back Up Business Assets
 Back up company data from PCs, public cloud, company
 servers, and virtual machines



Synology Collaboration Suite

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

High-End Scalable Storage, Desktop Form Factor

Synology DS1621xs+ offers great built-in functionality and easy hardware expandability, ideal for small and medium-sized businesses that need an efficient and space-saving storage solution.

- A server-class 4-core processor and a maximum 32 GB DDR4 ECC memory ensure smooth handling of heavy workloads and multi-tasking operations.
- Two M.2 2280 NVMe SSD slots let you take full advantage of Synology SSD Cache functionality. Add SSD cache for up to 20 times faster I/O response without using front drive bays.
- One built-in 10GbE port provides fast data transmission and can be bonded with an additional 10GbE NIC for sequential read speeds over 3,100 MB/s¹.
- Storage capacity can be increased to up to 16 drives with two Synology DX517 expansion units².

On-premises Collaboration & Synching Solution

DS1621xs+ 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 selfhealing, and fast snapshot replication.



Virtualization-Ready Platform

Synology's native hypervisor, Virtual Machine Manager, allows you to manage multiple virtual machines on your DS1621xs+ and run Windows®, Linux®, and Virtual DSM applications on your Synology NAS.

Establish a Strong Storage Foundation with Btrfs

DS1621xs+ 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.

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.



Synology Backup Suite

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

Full Backup Suite

DS1621xs+ offers users a complete range of backup solutions by integrating backup for cloud, physical and virtual on-premises environments in one software suite. 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. Active Backup for Office 365/G Suite offers users an on-premises backup solution for public cloud data, optimizing storage efficiency by using Synology's single instancing and block-level deduplication technology.
- Back up your PCs and servers: Active Backup for Business is an integrated solution to back up your Windows[®] PC, servers and rsync/ SMB file servers, offering various recovery options to ensure the lowest RTO. Synology Drive Client backs up your Windows[®], macOS[®], and Linux[®] desktop devices to safeguard important computer files.
- Back up your virtual machines: **Active Backup for Business** is the solution to back up your virtual machines, offering a range of recovery options to ensure the lowest RTO.
- Back up your Synology NAS: **Hyper Backup** offers a wide range of destinations for backups of your NAS, including on-premises and cloud.

Maximum Reliability Design

System reliability is critical for any business. DS1621xs+ meets the need for maximum uptime with a wide range availability and redundancy features:

- **Synology High Availability** ensures seamless transitioning between clustered servers in the event of an unexpected disaster and ensures that your services remain online.
- High reliability system design, including fan-less CPU heat-sinks and passive cooling technology, eliminates single points of failure.
- Hot-swappable drive trays are easily replaced if a drive malfunctions.
- **DDR4 ECC SODIMM** reduces power consumption and features error detection and correction capabilities during data transmission.

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 3.0 port
9	System fan	10	Power port	11	Kensington Security Slot	12	10GbE RJ-45 port
13	1GbE RJ-45 port	14	Reset button	15	Expansion port	16	PCIe expansion slot

Technical Specifications

Hardware

CPU	Intel® Xeon® D-1527 4-core 2.2GHz, Turbo Boost up to 2.7GHz
Hardware encryption engine	Yes (AES-NI)
Memory	8 GB DDR4 ECC SODIMM (expandable up to 32 GB)
Compatible drive type	 6 x 3.5" or 2.5" SATA HDD/SSD (drives not included) 2 x M.2 2280 NVMe SSD (drives not included)
Hot swappable drive	Yes
External port	 3 x USB 3.0 port 2 x eSATA port
Size (HxWxD)	166 x 282 x 243 mm
Weight	5.3 kg
LAN	 2 x 1GbE RJ-45 1 x 10GbE RJ-45
Wake on LAN/WAN	Yes
PCIe 3.0 slot	1 x 8-lane x8 slotHigh-performance network interface card support
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

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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, FAT32, NTFS, HFS+, exFAT³
Supported RAID type	Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, RAID 10, RAID F1
Storage management	 Maximum single volume size: 108TB/200TB (at least 32 GB RAM required, for RAID 5 or RAID 6 groups only) Maximum system snapshots: 65,536⁴ Maximum internal volume: 256
SSD cache	Read/write cache supportM.2 NVMe SSD support
File sharing capability	 Maximum local user account: 16,000 Maximum local group: 512 Maximum shared folder: 512 Maximum concurrent SMB/NFS/AFP/FTP connection: 2,000
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, 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

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: 3,000,000 • Maximum number of concurrent connections for PC clients: 900				
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 ⁵	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 & Virtualizati	iSCSI Storage & Virtualization				
iSCSI Manager	 Maximum iSCSI target: 256 Maximum iSCSI LUN: 512 iSCSI LUN clone/snapshot support 				
Virtual Machine Manager	Deploy and run various virtual machines on Synology NAS, including Windows®, Linux®, or Virtual DSM				
Data Protection & Backup	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: 32				
Snapshot Replication	 Maximum of shared folder snapshots: 1,024 Maximum of Replication: 64 				
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				

ll-in-one backup solution designed for heterogeneous business IT environment, enabling IT admins to remotely manage nd monitor protection over PC, servers and VM on one centralized console							
Productivity & Collaboration							
ollaborate with instant message service Synology Chat, online editor Synology Office, and scheduling assistant Synology alendar Chat maximum user: 4,000 Office maximum user: 2,900 Calendar: support CalDAV and access via mobile devices							
ich-text note organization and versioning, encryption, sharing, media embedding and attachments							
ecure, reliable, and private mail solution with high-availability, load balancing, security and filtering design (Includes 5 free mail account licenses; additional accounts require the purchasing of additional licenses)							
ntuitive webmail interface for Synology MailPlus Server, customizable mail labels, filters, and user interface							
upport smart AI album with facial and subject recognition, photo editing and sharing features, similar photo detection, auto- diting functions such as color correction and angle adjustments, and AI selection of the best photos. Mobile applications are vailable on iOS and Android [™] devices							
ideo Station, Photo Station, Audio Station, iTunes® Server							
laximum IP camera: 75 (total of 2,250 FPS at 720p, H.264) (Including two free camera licenses. Additional cameras require ne purchasing of additional licenses)							
rovide a flexible and cost-effective domain controller solution							
rovide a single interface to manage and monitor multiple Synology NAS							
laximum connection: 40. Supported VPN protocol: PPTP, OpenVPN™, L2TP/IPSec							
upported Mail Server Protocols: POP3, SMTP, IMAP, Support LDAP/AD account							
/ebmail interface for Mail Server to receive emails from multiple POP3 mailboxes, customizable SMTP server							
irtual host (up to 30 websites), PHP/MariaDB®, 3rd-party applications support							
NS Server, RADIUS Server, Log Center							
olume and quota usage, total size of files, volume usage and trends based on past usage, size of shared folders, large files, nost recently modified files, least recently accessed files							
ull system scan, scheduled scan, white list customization, virus definition auto update							
alware detection/removal, user account/password, network, system-related security scan							
ynology Drive, Synology MailPlus, Synology Chat, Synology LiveCam, Moments, DS audio, DS photo, DS video, DS cam, DS le, DS finder, DS note							
dditional 3rd-party packages available on Package Center							
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Environment and Packaging

Environment safety	RoHS compliant
Package content	 DS1621xs+ main unit x 1 Quick Installation Guide x 1 Accessory pack x 1
	 AC power cord x 1 RJ-45 LAN cable x 2
Optional accessories ⁶	 DDR4 ECC SODIMM: D4ES01-8G/D4ECSO-2666-16G 10GbE Network Interface Card: E10G18-T2/E10G18-T1/E10G17-F2 2.5" SATA SSD: SAT5200 M.2 2280 NVMe SSD: SNV3400 Expansion Unit: DX517 VisualStation: VS960HD/VS360HD Surveillance Device License Pack Synology MailPlus License Pack Virtual DSM License Pack
Warranty	5 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. DS1621xs+ can be scaled up to 16 drives with 2 x DX517. Synology expansion units are sold separately.
- 3. exFAT Access can be purchased separately in Package Center.
- 4. System snapshots include snapshots taken by iSCSI Manager, Snapshot Replication, and Virtual Machine Manager. Availability of these packages varies by model.
- 5. Presto File Server license can be purchased separately in Package Center.
- 6. Please refer to www.synology.com/compatibility for the latest optional accessories list.
- 7. 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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