Synology®

Synology DiskStation DS1511+
High Performance NAS Server Scales up to 15 Drives for SMB Users

Synology® DiskStation DS1511+ offers a high-performance, scalable, and full-featured network attached storage solution that meets the needs of small and medium-sized businesses that require an efficient way to centralize data protection, simplify data management, and rapidly scale storage capacity with minimal time spent on setup and management. The Synology DS1511+ is backed with Synology's 3-year limited warranty.

Highlights
- 165.91 MB/sec Writing, 197.8 MB/sec Reading[1]
- Windows ADS and ACL support
- iSCSI Support as Virtualization Solution
- Scale up to 15 Drives with Synology DX510[2]
- Expandable RAM Size (up to 3GB)
- 2 LAN with Failover and Link Aggregation Support
- Hot-swappable Hard Drive Design

High Performance, High Data Availability

With the Link Aggregation enabled, Synology DS1511+ delivers an average 165.91 MB/sec writing speed under RAID 5 configuration in a Windows environment, and 197.8 MB/sec reading. The 2 LAN with failover support and hot-swappable drives will ensure continual service uptime should the drives need replacement or the unexpected LAN failure. Businesses need a strong foundation to face mission-critical tasks so the Synology DS1511+ delivers high-performance with high data availability ensuring access when it's needed.

Fit to Business Environment

Windows ADS integration allows the Synology DS1511+ to quickly and easily fit in an existing business network environment with no need to recreate users' accounts on the Synology DS1511+. The User Home feature minimizes the administrator's effort in creating a private shared folder for a large amount of users.

Windows ACL support on DS1511+ provides much finer-grained access control and efficient privilege settings, allowing IT staffs to set up privileges to files and folders on DS1511+ through their familiar Windows user interface. The privileges set on Windows ACL will be applied to all access entries, including AFP, FTP, File Station, NFS and WebDAV. The secure privilege offers IT staff peace of mind, no worries about any loopholes.

iSCSI and Virtualization Ready

With the iSCSI support in DSM 3.0, the Synology DS1511+ provides a seamless storage solution for virtualization servers, such as VMware, Hyper-V, and Citrix. It is the ideal alternative to SAN solution for businesses. Affordable and cost-effective, iSCSI allows SMB users to consolidate storage into data center storage arrays while providing hosts with the illusion of locally-attached disks.

Robust & Affordable Scalability Up to 45 TB

When the storage capacity of the Synology DS1511+ is nearing its limits, it can easily be expanded by the Synology DX510[3]. The Synology DX510 securely connects to the Synology DS1511+ via an eSATA cable of specially-designed connectors on both ends to ensure maximum throughput. The Synology DX510 can directly expand the existing storage on the Synology DS1511+ to a maximum 45 TB capacity.

Full-featured Business Applications

The Synology DS1511+ runs on the renowned operating system, Synology DSM 3.0, offering comprehensive applications and features designed specifically for SMBs. Comprehensive network protocol support assures seamless file sharing across Windows, Mac, and Linux platforms.

Internet file access is simplified by the encrypted FTP server and the web-based file explorer, Synology File Station. HTTPS, firewall, and IP auto-block support ensure file sharing over the Internet is protected at a high security level.

A wealth of additional features allows the Synology DS1511+ to replace several pieces of network hardware. Synology Web Station with support for PHP/MySQL content allows for the hosting of up to 30 websites on a single Synology DS1511+. Synology Surveillance Station offers a centralized interface to safeguard the office environments by deploying IP cameras throughout the network. The Mail Station add-on turns a Synology DS1511+ into a mail server with only few steps of installation and the USB printer sharing capability minimizes businesses' printing cost by sharing printing resources throughout the office.
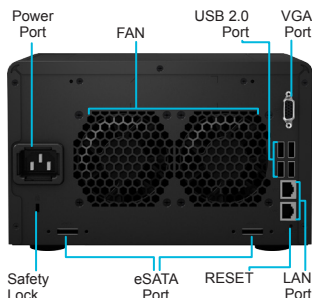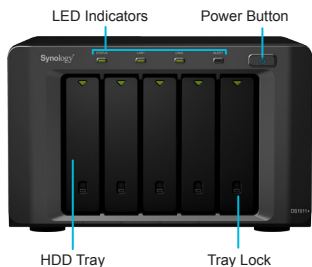
Energy Efficient Design

Synology DiskStations are designed and developed with energy efficiency in mind. Compared with the average PC counterparts, Synology DiskStations consume a relatively low amount of power and have the hard drives hibernate when not in use.

All Synology products are produced with RoHS compliant parts and packed with recyclable packing materials. Synology acknowledges the responsibility as a global citizen to continually work to reduce the environmental impact of every product produced.

DS1511+

DX510   **DX510**

CONNECTIONS & BUTTONS

LED Indicators   Power Button

HDD Tray   Tray Lock

Power Port   FAN   USB 2.0 Port   VGA Port

Safety Lock   eSATA Port   RESET   LAN Port

Technical Specifications

Hardware

- CPU: 1.8GHz, Dual Core, with floating point
- RAM Size: 1 GB[4]
- Internal HDD[5]: 5X 3.5" or 2.5" SATA(II)
- External HDD Interface: 4X USB ports, 2X eSATA ports
- Size: 157mm X 248mm X 233mm
- Weight: 4.25kg
- LAN: 2X Gigabit
- Fan: 2X (80mm X 80mm)

- Wake on LAN
- Noise Level[6]: 25.8 dB(A)
- Hot swappable HDD
- Power Recovery
- AC Input Power Voltage: 100V to 240V
- Power Frequency: 50Hz to 60Hz, Single Phase
- Max Internal Capacity: 15TB (5X 3TB hard drives)[7]
- Operating Temperature: 5°C to 35°C (40°F to 95°F)

- Storage Temperature: -10°C to 70°C (15°F to 155°F)
- Relative Humidity: 5% to 95% RH
- Max Operating Altitude: 10,000 feet
- Power Consumption: 68W (Access); 30W (HDD Hibernation)[8]
- Certification: FCC Class B, CE Class B, BSMI Class B

Applications

File Browser / File Station

FTP Server
- Bandwidth Control
- Custom FTP Passive Port Range
- Anonymous FTP
- Transfer Log

Web Station
- Virtual Host (up to 30 websites)
- PHP/MySQL
- Alternative HTTP Error Page
- 3rd-Party Applications Support

Surveillance Station
- Default IP cam #: 1
- MAX IP cam # (licenses required): 20[9]

Photo Station
- Supported Image Format: BMP, JPG (jpe, jpeg), GIF, RAW (arw, srf, sr2, dcr, k25, kdc, cr2, crw, nef, mrw, ptx, pef, raf, 3fr, erf, mef, mos, orf, rw2, dng, x3f)
- Supported Video Format[10] : 3G2, 3GP, ASF, AVI, DAT, DivX, FLV, M4V, MOV, MP4, MPEG, MPG, QT, WMV, XviD, RM, RMVB, VOB, RV30, RV40, AC3, AMR, WMA3

Download Station
- Supported Download Protocols: BT/HTTP/FTP/NZB/eMule
- Custom BitTorrent Port Range
- BitTorrent / eMule Bandwidth Control

Audio Station
- Supported Audio Format: (USB Mode) AAC, FLAC, M4A, MP3, Ogg Vorbis, WMA, WMA VBR; (Streaming Mode) MP3, M4A, M4B
- Supported Playlist Format: M3U, WPL
- Internet Radio: SHOUTcast, Radioio

DLNA/UPnP Media Server
- DLNA Certified
- PS3/Xbox 360 Support
- Supported Audio Format: AAC, FLAC, M4A, MP3, Ogg Vorbis, PCM, WAV, WMA, WMA VBR, WMA PRO, WMA Lossless
- Supported Video Format: 3GP, 3G2, ASF, AVI, DAT, DivX, DVR-MS, ISO, M2T, M2TS, M4V, MKV, MP4, MPEG1, MPEG2, MPEG4, MTS, MOV, QT, SWF, TP, TRP, TS, VOB, WMV, XviD, RV30, RV40, AC3, AMR, WMA3
- Supported Image Format: BMP, JPG (jpe, jpeg), GIF, ICO, PNG, PSD, TIF (tiff), UFO, RAW (arw, srf, sr2, dcr, k25, kdc,

cr2, crw, nef, mrw, ptx, pef, raf, 3fr, erf, mef, mos, orf, rw2, dng, x3f)
- Supported Subtitles Format: srt, psb, smi, ass, ssa, sub, idx, ifo

iTunes Server
- Supported Audio Format[11]: MP3, M4A, M4P, WAV, AIF
- Supported Video Format: M4V, MOV, MP4
- Supported Playlist Format: M3U, WPL

Print Server[12]
- Max Printer #: 2
- Supported Protocols: LPR, CIFS, AppleTalk

Synology Packages
- Mail Station
- Squeezebox Server
- Webalizer
- phpMyAdmin
- Time Backup
- HASP

iPhone and Android Applications
- DS photo+
- DS audio
- DS cam

General Specifications

Networking Protocols
- CIFS, AFP, FTP, iSCSI, Telnet, SSH, NFS, WebDAV, SNMP

File System
- EXT4
- EXT3 (External Disk Only)
- FAT32 (External Disk Only)
- NTFS (External Disk Only)

Volume Management
- Synology Hybrid RAID
- Max iSCSI Target / LUN: 32 / 256
- Volume Type: Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 5+Spare, RAID 6, RAID 10
- RAID Migration: from Basic to RAID 1, from Basic to RAID 5, from RAID 1 to RAID 5, from RAID 5 to RAID 5+Spare, from RAID 5 to RAID 6
- Expand RAID 1, RAID 5, RAID 5+Spare or RAID 6 with Larger Hard Drives
- Expand RAID 5 by Adding a Hard Drive On The Fly

File Sharing Capability
- Max User Account: 2048
- Max Group: 256
- Max Shared Folder: 256
- Max Concurrent Connections (CIFS, FTP, AFP): 512

Windows Access Control List (ACL) Support

Windows ADS Domain Integration
- Domain Users login via CIFS/AFP/FTP/File Station

Backup Solutions
- Network Backup
- Local Backup
- Time Backup
- Desktop Backup (using Synology Data Replicator 3 or Apple Time Machine backup application)
- 3rd-Party Backup Support

Security
- FTP over SSL/TLS
- IP Auto-Block
- Firewall
- Encrypted Network Backup over rsync
- HTTPS Connection

Management
- DSM Upgrade
- Email Notification
- SMS Notification
- Customized User Quota
- DDNS Support
- PPPoE
- Resource Monitor
- UPS Management
- Multiple Scheduled Power On/Off
- Custom Management UI HTTP/HTTPS Ports

HDD Management
- HDD Hibernation
- S.M.A.R.T.

- Dynamic Bad Sector Mapping

Utilities
- Synology Assistant
- Synology Download Redirector
- Synology Data Replicator

Supported Browsers
- Chrome 5
- Internet Explorer 7 and 8
- Firefox 3.5 and 3.6
- Safari 4 and 5 (Mac)

Supported Clients
- Windows 2000 onward
- Mac OS X 10.3 onward
- Ubuntu 9.04 onward

Supported Mobile Devices (Photo Station, File Station)
- iPhone OS 2.2.1 onward
- Android OS 1.5 onward
- Windows Mobile (IE Mobile or Opera 9.0 onward)
- Symbian OS 9.1, S60 3rd Edition onward

Language
- Czech, Danish, Dutch, English, French, German, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese Brazil, Portuguese European, Russian, Simplified Chinese, Spanish, Swedish, Traditional Chinese, Turkish

Environment and Packaging

Environment
- RoHS Compliant

Package Content
- DS1511+ Main Unit
- Installation DVD

- Welcome Note
- Assembling Kit
- AC Power Cord
- 2M RJ-45 LAN Cable
- 1GB RAM module (optional)

Optional Accessories
- Remote
- Camera License Pack

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1. With Link Aggregation enabled. The performance figures could vary on different environments.
2. Purchase separately.
3. DS1511+ supports up to 2 Synology DX510.
4. Expandable (up to 3GB).
5. Hard drive not included.
6. Fully loaded with Seagate 1TB ST31000520AS hard drive(s) in operation; Two G.R.A.S. Type 40AE microphones, each set up at 1

meter away from the DiskStation front and rear; Background noise: 17.2 dB(A); Temperature: 23.6°C; Humidity: 58.2%; More details about dB(A) value, check http://www.memtechacoustical.com/facts.asp
7. The actual capacity will differ according to volume types.
8. Measured with 5 Seagate 750GB ST3750640NS hard drive. The figures could vary on different environments.
9. 1 free license to install 1 IP camera. Additional licenses can be purchased to expand the license quota.

10. User can click and download the following video formats: RM, RMVB, VOB, RV30, RV40, AC3, AMR, WMA3, but not able to play it in Photo Station as compressed Flash video.
11. The music in WAV and AIF format can be streamed, but the metadata (ex: title, album) may not be indexed on the iTunes.
12. For Mac users, DS1511+ supports PostScript USB printers only.

Networking

External Disk — DS1511+ — USB Printer

DS1511+ — Wireless Router — Windows ADS Server

PC / Mac / Linux   PC / Mac / Linux   IP Camera