



# Synology DiskStation DS411

Feature-rich 4-bay NAS Server for Workgroups and Offices

**Synology® DiskStation DS411 offers an affordable and full-featured network attached storage solution, specifically designed for small business and workgroup users who need to share and protect data cost-effectively, while increasing productivity with comprehensive office applications. Running on DiskStation Manager (DSM) operating system, it delivers ease of use and variety of features.**

## Highlights

- Optimal Price/Performance Ratio
- RAID Data Protection
- Windows + Mac + Linux Cross File Sharing
- Complete Backup Solutions
- Rich Office Applications
- Power-saving with only 27.7 Watts in Operation

## Optimal Price/Performance Ratio

Synology DS411 delivers an average 105.3 MB/sec reading speed under RAID 5 configuration in a Windows environment, and 47.8 MB/sec writing. Synology DS411 provides a reliable solution for data sharing with an easy to use interface, and comprehensive office applications, including a complete backup solution making it one of the best values in 4-bay NAS devices available today.

## Windows + Mac + Linux Cross Platform File Sharing

Synology DS411 offers comprehensive network protocol support, assuring seamless file sharing across Windows, Mac, and Linux platforms. Windows ADS integration allows the Synology DS411 to quickly and easily fit into an existing business network environment with no need to recreate user accounts on the Synology DS411. 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.

For users who are always on the move, Synology provides a handy app, DS file for the users of iPhone, iPad and Android phones. Anything stored on Synology DS411 can now be accessed remotely using DS file via the Internet.

## Complete Backup Solutions

Synology DS411 offers a centralized backup target to consolidate fragmented and unstructured data across a network. PC users can back up their data to Synology DS411 using Synology Data Replicator software, and Mac OS X users enjoy native Apple® Time Machine integration.

A web-based backup wizard is provided for backing up data in Synology DS411 to another Synology DiskStation or any rsync server via an encrypted protocol, or to an external hard drive via USB connection. In addition, backing up to the cloud using Amazon® S3 service is supported. The add-on package, Time Backup, keeps DiskStation data in multiple versions, so IT administrators could easily keep track of them and restore to previous version whenever required.

## Rich Office Applications

Synology DiskStation DS411 runs on the award-winning operating system, Synology DiskStation Manager (DSM), offering comprehensive applications and features designed specifically for home and business workgroups. Synology Web Station with support for PHP/MySQL web content allows hosting up to 30 websites, and 3rd party web application such as Content Management, Customer Relationship Management & e-Commerce system.

Synology Surveillance Station offers a centralized interface to safeguard the office environments by deploying IP cameras, and users traveling miles away are able to see the live view, recordings and take snapshots using a browser on any computer or an iPhone with DS cam app.

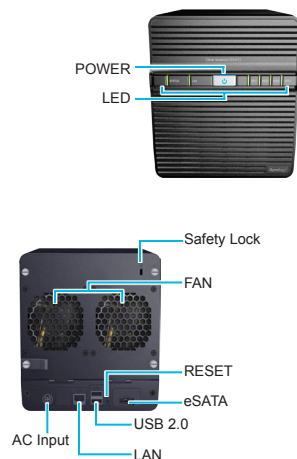
The built-in mail server turns a Synology DS411 into a dedicated mail service provider and the USB printer sharing capability minimizes businesses' printing cost by sharing printing resources throughout the office. The add-on package, Mail Station 2, provides a webmail interface for users to access the email stored on Synology DS411.

## Energy Efficient Design

Synology DiskStation are designed and developed with energy efficiency in mind. Compared with the average PC counterparts, Synology DS411 consumes only 27.7 watts in operation. The support of wake on LAN, scheduled power on/off and hard drive hibernation can further reduce power consumption and operation cost.

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.

**CONNECTIONS & BUTTONS**



**Technical Specifications**

**Hardware**

- CPU Frequency: 1.6 GHz
- RAM Size: DDR3 512MB (16bit@DDR1066)
- Internal HDD : 4X 3.5" or 4X 2.5" SATA(II) (hard drives not included)
- External HDD Interface: 2X USB ports, 1X eSATA port
- Size (H X W X D): 184mm X 168mm X 230mm
- Weight: 2.23kg
- LAN: 1X Gigabit
- Wireless Support (wireless dongles not included)
- Wake On LAN
- Fan: 2X (80mm X 80mm X 20mm)
- Power Recovery
- AC Input Power Voltage: 100V to 240V
- Power Frequency: 50Hz to 60Hz, Single Phase
- Max Internal Capacity: 12TB (4X 3TB hard drives) (The actual capacity differs according to volume types.)
- BitTorrent / eMule Bandwidth Control
- 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\*: 27.7W (Access); 13.2W (HDD Hibernation)
- Certification: FCC Class B, CE Class B, BSMI Class B

**Applications**

**File Station**

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

**Mail Server**

- Supported Mail Server Protocol : POP3, SMTP, IMAP

**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): 12 (1 free license to install 1 IP camera. Additional licenses can be purchased to expand the license quota.)

**Photo Station**

- Supported Image Format: BMP, JPG (jpe, jpeg), GIF, RAW (arw, srf, srf2, dcr, k25, kdc, cr2, crw, nef, mrv, ptx, pef, raf, 3fr, erf, met, mos, orf, rw2, dng, x3f)
- Supported Video Format: 3G2, 3GP, ASF, AVI, DAT, DivX, FLV, M4V, MOV, MP4, MPEG, MPG, QT, WMV, XviD, RM, RMVB, VOB, RV30, RV40, AC3, AMR, WMA3 (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.)

**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**

- 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, srf2, dcr, k25, kdc, cr2, crw, nef, mrv, ptx, pef, raf, 3fr, erf, met, mos, orf, rw2, dng, x3f)
- Supported Subtitles Format: srt, psb, smi, ass, ssa, sub, idx, ifo

**iTunes Server**

- Supported Audio Format: MP3, M4A, M4P, WAV, AIF (The music in WAV and AIF format can be streamed, but the metadata (ex: title, album) may not be indexed on the iTunes.)
- Supported Video Format: M4V, MOV, MP4
- Supported Playlist Format: M3U, WPL

**Printer Server**

- Max Printer #: 2
- Printing Protocols: LPR, CIFS, AppleTalk AirPrint, Multi Functional Print Server (For Mac users, DS411 supports PostScript USB printers only)

**Synology Packages**

- Mail Station 2
- Squeezebox Server
- Webalizer
- phpMyAdmin
- Time Backup
- VPN Client

**iPhone/Android Applications**

- DS photo+
- DS audio
- DS cam
- DS file
- DS finder (iPhone only)

**General Specifications**

**Networking Protocols**

- CIFS, AFP, FTP, iSCSI, Telnet, SSH, NFS, SNMP

**File System**

- EXT4
- EXT3 (External Disk Only)
- FAT (External Disk Only)
- NTFS (External Disk Read Only)

**Volume Management**

- Synology Hybrid RAID
- Max Volume #: 128
- Max iSCSI Target #: 10
- Max iSCSI LUN #: 10
- Volume Type: Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 5+Spare, RAID 6, RAID 10
- RAID Migration: from Basic to RAID 1, Basic to RAID 5, Basic to RAID 5+Spare, RAID 1 to RAID 5, RAID 1 to RAID 5+Spare, RAID 5 to RAID 5+Spare, 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 # (SMB, FTP, AFP): 256

**Windows ADS Domain Integration**

- Domain Users login via Samba/AFP/FTP/File Station

**Backup Solutions**

- Network Backup
- Local Backup
- Desktop Backup (using Synology Data Replicator 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
- 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 Data Replicator

**Support Browsers**

- Internet Explorer 7/8/9
- Firefox 3.5/3.6
- Safari 4/5 (Mac)
- Chrome

**Supported Clients**

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

**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

**Environment and Packaging**

**Environment**

- RoHS Compliant

**Package Content**

- DS411 Main Unit

- Installation Disc
- Welcome Note
- Assembling Kit
- AC Power Cord
- 2M RJ-45 LAN Cable

**Optional Accessories**

- Remote
- Camera License Pack

**SYNOLOGY INC.**

Founded in 2000, Synology is a young and energetic company dedicated to developing high-performance, reliable, versatile, and environmentally-friendly Network Attached Storage (NAS) products. Our goal is to deliver user-friendly solutions and solid customer service to satisfy the needs of businesses, home offices, individual users and families.

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1. Measured with 4 Western Digital 2TB WD20EURS-36548Y0 hard drives. The figures could vary on different environments.

**Networking**

