

# Synology RackStation RS411

1U Rackmounted NAS Server with Optimal Price/Performance Ratio for Business Workgroups



**Synology RackStation RS411 is designed to provide business workgroups with a flexible solution to share files and increase productivity. Its sophisticated Synology DiskStation Manager 3.0 provides an ideal solution for cross platform file sharing, secure server backup, Windows ADS integration, business mail server, and corporate surveillance.**

## Highlights

- Optimal Price/Performance Ratio
- Cross Platform File Sharing & Backup
- Fit to Business Environment
- 2 LAN with Failover and Link Aggregation Support
- Power-saving with only 53W in Operation
- Affordable Total Cost of Ownership

## High Data Availability with Optimal Performance

The Synology RS411 delivers an average 107.75MB/sec reading speed under RAID 5 configuration in a Windows® environment, and 47.71MB/sec writing. 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 occur. Businesses need a strong foundation to face mission-critical tasks so the Synology RS411 delivers high data availability with optimal performance ensuring access when it's needed.

## Fit to Business Environment

Synology RS411 is designed for data storage and file sharing among Windows, Mac, and Linux. Seamless file sharing across different operation systems is an effortless process. Windows ADS integration even allows the Synology RS411 to quickly and easily fit into an existing network environment with no need to recreate user accounts on the Synology RS411.

## Cross Platform File Sharing & Backup

The Synology RS411 offers a centralized backup target to consolidate fragmented and unstructured data across a network. PC Users can back up their data to the Synology RS411 using the free Synology Data Replicator software, while Mac OS X users enjoy native Apple® Time Machine integration. A web-based backup wizard is provided for backing up data in the Synology RS411 to another Synology DiskStation, RackStation or any rsync server via an encrypted transmission, or to an external hard drive via USB or eSATA connection. In addition, backing up to the cloud using Amazon® S3 service is also supported.

## Full-featured Business Applications

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

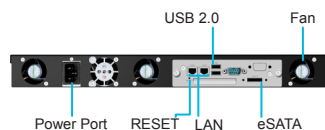
A wealth of additional features allows the Synology RS411 to replace several pieces of network hardware. Synology Web Station with support for PHP/MySQL content allows for the hosting of up to 30 websites on a single Synology RS411. Synology Surveillance Station offers a centralized interface to safeguard the office environments by deploying IP cameras throughout the network. The Mail Station add-on turns a Synology RS411 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 RackStations are designed and developed with energy efficiency in mind. Compared with its average server counterparts, the Synology RS411 consumes a relatively low amount of power at 53 watts only in operation. The support of scheduled power on/off and hard drive hibernation help to further reduce power consumption and operation cost.

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

## CONNECTIONS &amp; BUTTONS



## Technical Specifications

## Hardware

- CPU: 1.6GHz
- RAM Size: DDR3 256MB
- Internal HDD<sup>1</sup>: 4X 3.5" or 2.5" SATA(II)
- External HDD Interface: 2X USB ports, 1X eSATA port
- Max Internal Capacity: 12TB (4X 3TB hard drives)<sup>2</sup>
- Rail Kit: Synology 1U Rail Kit Sliding / Synology 1U Rail Kit Fixed (optional)
- Size: 44mm X 430.5mm X 457.5mm
- Weight: 7.1kg
- LAN: 2X Gigabit
- Wireless Support<sup>3</sup>
- Fan: 3X (40mm X 40mm)
- Noise Level<sup>4</sup>: 31.1dB(A)
- Hot Swappable HDD Design
- Power Recovery
- AC Input Power Voltage: 100V to 240V

- Power Frequency: 50Hz to 60Hz, Single Phase
- 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<sup>5</sup>: 53W (Access); 23W (HDD Hibernation)
- Certification: FCC Class A, CE Class A

## 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): 8<sup>6</sup>

## 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<sup>7</sup>: 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<sup>8</sup>: MP3, M4A, M4P, WAV, AIF
- Supported Video Format: M4V, MOV, MP4
- Supported Playlist Format: M3U, WPL

Print Server<sup>9</sup>

- Max Printer #: 2
- Supported Protocols: LPR, CIFS, AppleTalk

## Synology Packages

- Mail Station
- Squeezebox Server
- Webalizer
- phpMyAdmin
- Time Backup

## 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: 10 / 10
- Volume Type: Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 5+ Spare, RAID 6
- RAID Migration: from Basic to RAID 1, from Basic to RAID 5, from Basic to RAID 5+ Spare, from RAID 1 to RAID 5, from RAID 1 to RAID 5+ Spare, 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): 128

## 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, Brazilian, Portuguese European, Russian, Simplified Chinese, Spanish, Swedish, Traditional Chinese, Turkish

## 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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- Hard drive not included.
- The actual capacity will differ according to volume types.
- Wireless dongles not included. Please check <http://www.synology.com/> for supported wireless dongles.
- Fully loaded with Seagate 1TB ST31000520AS hard drive(s) in operation; Two G.R.A.S. Type 40AIE microphones, each set up at 1 meter away from the RackStation 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>

- Measured with 4 Seagate 750GB ST3750640NS hard drive. The figures could vary on different environments.
- 1 free license to install 1 IP camera. Additional licenses can be purchased to expand the license quota.

- 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.
- The music in WAV and AIF format can be streamed, but the metadata (ex: title, album) may not be indexed on the iTunes.
- For Mac users, RS411 supports PostScript USB printers only.

## Networking

