Synology®

Synology RackStation RS3413xs+

Ultra-High performance NAS Server Scales over 100TB for Large Scale Business

Synology® RackStation RS3413xs+ offers ultra-high performance, scalable and full-featured network attached storage solution for large scale businesses that require an efficient way to centralize data protection, simplify data management, deploy virtualization solutions, and rapidly expand storage capacity with minimal time spent on setup and management. Synology RS3413xs+ is backed with Synology's 3-year limited warranty.

Highlights

- Ultra-high performance of 2000 MB/sec throughput and 200,000+ IOPS[1]
- Scale over 100TB with Synology RX1211[2]
- Dual 10GbE ports support (with PCI-E add-on card)
- VMware®, Citrix®, Microsoft® Hyper-V® compliance
- CPU Passive Cooling Technology & System Fan Redundancy
- Expandable ECC RAM module (up to 8GB)
- Running on Synology DiskStation Manager (DSM)

Ultra-High Performance

With Link Aggregation, Synology RS3413xs+ delivers the high performance of over 2000 MB/sec throughput and 200,000 IOPS under RAID 5 configuration[1]. In addition to the default 4 Gigabit ports, dual 10GbE are supported with the add-on PCI Express x8 Gen2 Network Interface Card to maximize the system bandwidth. RS3413xs+ is able to bring you the ultra-high performance that your data-intensive application demands on the storage system.

High Reliability & Availability

Reliable functioning of commercial systems is of paramount concern to business users that depending on these servers everyday. Synology RS3413xs+ is now introduced with the fanless CPU heatsink to prevent the single point of failure, with the CPU passive cooling technology RS3413xs+ achieves the high reliability system design. When system detects fan failure, the built-in redundancy mechanism will spin up the functional fan(s) to properly ventilate the system, and support continuous operations until the replacement fan arrives. Therefore, potential system damages are minimized and system availability is maximized.

The network ports with failover support combining with hot-swappable drives will ensure continual service uptime during drives replacement or unexpected LAN failure. The ECC RAM module on RS3413xs+ will detect and correct errors that occur during data transmission. Supporting up to 8GB ECC RAM, RS3413xs+ provides secure data protection and performance to meet the need of large scale businesses for a strong foundation to face mission-critical tasks.

Robust Scalability Over 100 TB

Synology RS3413xs+ is also designed to grow with your business and provides the ability to seamlessly expand a single volume over 100TB on the fly. When the storage capacity of RS3413xs+ is nearing its limits, it can easily be expanded with Synology RX1211[2]. It is connected to RS3413xs+ via an Infiniband cable that carries 12 Gb/s SATA signal to ensure maximum throughput.

Management of the large storage space on RS3413xs+ is simple and flexible. Multiple Volumes on RAID allows users to create more than one volume on a RAID structure, providing a flexible and efficient way to manage the storage across all hard drives. When the need for more space arises, the volume could be easily expanded without any service disruption.

Unified Storage and Virtualization Ready

Synology RS3413xs+ runs on the novel operating system, Synology DiskStation Manager (DSM), which integrates file-level and block-level storage in one unified storage system platform providing management simplicity to reduce your total cost of ownership.

Comprehensive network protocol support (CIFS/SMB, AFP and NFS) assures seamless file sharing across Windows®, Mac®, and Linux® platforms. iSCSI is also supported as the ideal alternative to SAN solution for business.

Affordable and cost-effective iSCSI allows large scale business to consolidate storage into data center storage arrays while providing hosts with the illusion of locally-attached disks. With the iSCSI support, RS3413xs+ provides a seamless storage solution for virtualization servers, such as VMware, Citrix, and Hyper-V. RS3413xs+ is also certified with the latest VMware vSphere® 5, supporting VMFS-5 and extended storage migration capability with better flexibility and higher performance in VMware virtualization platform.

Thin Provisioning is available for file-level iSCSI, enabling administrators to oversubscribe provision and then grow storage space as needed in safety. With Thin Provisioning, users are able to maximize the storage utilization to reduce the total cost of ownership for the storage system.

Full-featured Business Applications

The Synology RS3413xs+ offers applications and features designed specifically for large scale business. Windows ADS and LDAP integration allows RS3413xs+ to quickly and easily fit in an existing business network environment without recreating user accounts. Windows ACL support on RS3413xs+ provides much finer-grained access control and efficient privilege settings, allowing IT staffs to set up privileges to files and folders on RS3413xs+ through their familiar Windows user interface.
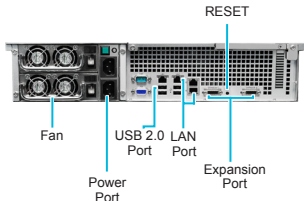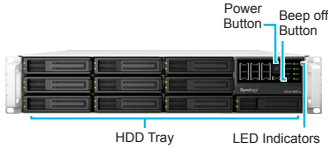
The built-in backup application is provided for backing up data in the RS3413xs+ to another Synology NAS, expansion unit, any rsync server via an encrypted transmission. It is even possible to back up from RS3413xs+ to the cloud with the Amazon S3® support. Shared Folder Sync is also available in DSM for implementing disaster recovery plans. With Shared Folder Sync, RS3413xs+ is able to replicate data to another DiskStation within the Intranet or across the Internet, helping to reduce the risk of business interruption.

Energy Efficient Design

Synology RS3413xs+ is designed and developed with energy efficiency in mind. Compared with the average storage server counterparts, RS3413xs+ consumes 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.

RS3413xs+   RX1211

CONNECTIONS & BUTTONS

Power Button — Beep off Button

HDD Tray — LED Indicators

RESET

Fan — USB 2.0 Port — LAN Port — Expansion Port

Power Port

Technical Specifications

Hardware

- CPU: Quad Core™ 3.1GHz, with floating point
- RAM Size: 4GB ECC RAM (Expandable, up to 8GB)
- Internal HDD/SSDD: 3.5" or 2.5" SATA(II) X 10 (Hard drive not included.)
- Max Internal Capacity: 30TB (10X 3TB hard drives)[3]
- External HDD Interface: 4X USB ports
- Expansion Interface: 2X Expansion port
- Rail Kit: Synology 2U Rail Kit Sliding (optional)
- Size: (H X W X D): 88mm X 445mm X 570mm
- Weight: 12.77kg

- Hardware Encryption Engine
- LAN: 4X Gigabit (optional 10 GbE X2 add-on card is supported)
- Link Aggregation
- Fan: 4X (80mm X 80mm)
- Wireless Support (wireless dongles not included)
- Wake on LAN/WAN
- Noise Level: 41.0 dB(A)[4]
- Hot Swappable HDD
- Power Recovery
- Redundant Power Supply

- 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[1]: 115.5W (Access); 104.5W (Idle); 57.2W (HDD Hibernation)
- Certification: FCC Class A, CE Class A, BSMI Class A
- 3-year Limited Warranty

Applications

File Station
- Virtual Drive
- Remote Folder

Mail Server
- Supported Mail Server Protocol : POP3, SMTP, IMAP

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

Web Station
- Virtual Host (up to 30 websites)
- PHP/MySQL®
- 3rd-Party Applications Support

Printer Server
- Max Printer #: 2
- Printing Protocols: LPR, CIFS, Apple AirPrint™, Google Cloud Print™, Multi Functional Print Server (Only PostScript USB printers are supported in MAC environment)

iOS/Android™ Applications
- DS photo+
- DS audio
- DS cam
- DS file
- DS finder

Windows Phone Applications
- DS finder

Add-on Packages

Surveillance Station
- Default IP cam #: 1
- MAX IP cam # (licenses required): 20 (1 free license to install 1 IP camera. Additional licenses can be purchased to expand the license quota.)

Directory Server
- LDAP Directory Server
- Backup and Restore LDAP Database

VPN Server
- Maximum Connections : 20
- VPN Method: PPTP, OpenVPN™

DHCP Server
- Independent DHCP Server on Different Network Interfaces
- Multiple Subnets Support
- Address Reservation

Syslog Server
- SSL Connection
- Log Rotation: 6 months, 1 year, 2 years, 3 years
- Email Notificaiton

Mail Station
- Webmail Interface for Mail Server
- Receiving Mails from Multiple POP3 Mailboxes
- Customizable SMTP Server

Antivirus Essential
- Full System Scan

- Scheduled Scan
- White List Customization
- Virus Definition Auto Update

Time Backup
- Maximum Task Number : 8
- Multiple File Versions Retained
- Instant File Restoration

Cloud Station
- Maximum User Accounts : 16
- Retain Historical and Deleted File Versions

HiDrive Backup
- Backup DiskStation data to STRATO HiDrive online storage

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: 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.)

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

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

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
- Supported Subtitles Format: srt, psb, smi, ass, ssa, sub, idx, ifo

Download Station
- Supported Download Protocols: BT/HTTP/FTP/NZB/eMule
- Maximum Concurrent Download Tasks : 80

Packages by 3rd Party
- HASP, phpMyAdmin, Webalizer, Logitech® Media Server, WordPress, OpenERP®

General Specifications

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

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

Volume Management
- Synology Hybrid RAID
- Max Volume #: 1024
- Max iSCSI Target #: 64
- Max iSCSI LUN #: 512
- 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, RAID 5+Spare or RAID 6 by Adding a Hard Drive On The Fly
- Volume Expansion with RX1211

File Sharing Capability
- Max User Account: 4096
- Max Group: 512
- Max Shared Folder: 512
- Max Concurrent Connections (CIFS, FTP, AFP): 1024

Windows Access Control List (ACL) Support

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

Backup Solutions
- Network Backup
- Shared Folder Sync
- 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
- Scheduled Power On/Off

- Custom Management UI HTTP/HTTPS Ports

HDD Management
- Deep Sleep for Expansion Unit
- HDD Hibernation
- S.M.A.R.T.
- Dynamic Bad Sector Mapping

Utilities
- Synology Assistant
- Synology Data Replicator

Support Browsers
- Chrome™
- Internet Explorer® 7, 8, and 9
- Firefox®
- Safari® 4 and 5 (Mac)

Supported Clients
- Windows XP onward
- Mac OS X® 10.5 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
- RS3413xs+ Main Unit
- Installation Disc

- Welcome Note
- Assembling Kit
- AC Power Cord: 2

Optional Accessories
- Remote

- Camera License Pack
- Rail Kit (Synology 2U Rail Kit Sliding)
- 2GB ECC RAM Module
- Expansion Unit (RX1211)

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1. Tested with dual 10GbE connection with Link Aggregation. The performance figures could vary on different environments.
2. RS3413xs+ supports up to two Synology RX1211, purchased separately.
3. The actual capacity will differ according to volume types.
4. Fully loaded with Seagate 1TB ST31000520AS hard drive(s) in idle; 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
5. Measured with 10 Western Digital® 2TB WD2002FYPS hard drive. The figures could vary on different environments.

Networking

RX1211 — RS3413xs+ — USB Printer

RS3413xs+ — Router — Windows ADS Server

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

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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