

# DiskStation

# **DS3018xs**



Synology DiskStation DS3018xs provides a reliable and powerful network attached storage solution for small and medium businesses. As the storage can be supercharged with the optional M.2 SSD adapter card for dual SSD as cache, it is the ideal solution for simplifying data management and planning virtualization deployment. Synology DS3018xs is backed with Synology's 5-year limited warranty.

### Ultra-High Performance

Synology DS3018xs is a brand new **6-bay** network attached storage solution with exceptional performance and flexible scalability. It can be installed with an optional 10GbE network card, thereby delivering over **2,231 MB/s** sequential reading and **265,000** sequential read IOPS under a RAID 5 configuration in a 10GbE environment<sup>1</sup>. DS3018xs is powered by a **dual-core 2.2 GHz** processor with a boost frequency of **2.6 GHz** and backed by **8GB RAM**, which is expandable up to **32GB**.

DS3018xs supports up to 30 drives with two Synology DX1215<sup>2</sup> expansion units, allowing you to start small and easily scale up on demand. In addition to 10GbE add-on cards, which can upgrade the network capacity of DS3018xs, the PCle slot also supports the optional **PCle M.2 SSD adapter card** M2D17<sup>3</sup> for **dual M.2 SSD slots** to function as SSD cache for greatly enhanced storage performance without using the 3.5" drive bays.

# Btrfs: Next Generation Storage

DS3018xs integrates the **Btrfs** file system, bringing the most advanced storage technologies to meet the management needs of modern large-scale businesses:

- Flexible Shared Folder / User Quota System provides comprehensive quota control on all user accounts and shared folders.
- Advanced snapshot technology with customizable backup schedule allows up to 1,024 copies of shared folder backups and 65,000 copies of system-wide snapshots without occupying huge storage capacity and system resources.
- **File or folder level data restoration** brings huge convenience and saves time for users who wish to restore only a specific file or folder.
- **File self-healing**: Btrfs file system is able to auto-detect corrupted files with mirrored metadata, and recover broken data using the supported RAID volumes, which include RAID 1, 5, 6, and 10.

### Highlights

- Powerful 6-bay NAS optimized for dataintensive applications in small and medium business
- Ultra-high performance of over 2,231 MB/s sequential reading and 265,000 sequential IOPS reading¹
- Dual-core CPU with AES-NI and 8GB (up to 32GB) DDR4 ECC SO-DIMM RAM
- PCIe 3.0 slot for optional 10GbE add-on card or M2D17 adapter card<sup>3</sup> for dual M.2 SSD as cache
- Four built-in 1GbE (RJ-45) ports supporting failover and Link Aggregation
- Scalable up to 30 drives with two DX1215 expansion units<sup>2</sup>
- Advanced Btrfs file system offering 65,000 system-wide snapshots and 1,024 snapshots per shared folder
- Backed with SRS, Synology's nextbusiness-day replacement service



### **Comprehensive Business Applications**

Powered by the innovative Synology **DiskStation Manager (DSM)**, DS3018xs comes fully-equipped with applications and features designed specifically for large-scale businesses:

- **Windows® AD** and **LDAP** support allows easy integration with existing business directory services without recreating user accounts.
- **Windows ACL** support provides fine-grained access control and efficient privilege settings, allowing DS3018xs to fit seamlessly into current infrastructure.
- 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 with a high level of security.
- **Application Privileges** controls access to applications and packages based on each individual account, user group, or IP address.
- **MailPlus** allows your business to set up a secure, reliable, and private mail server while giving your employees a modern mail client for receiving and sending messages.
- With Synology Office, Calendar and Chat, the powerful Collaboration Suite allows secure and efficient private communications as well as content organization that your business can easily manage and control.

#### Virtualization Solutions

Synology's **Virtual Machine Manager** opens up abundant possibilities, allowing you to set up and run various virtual machines, including **Windows**, **Linux**, and **Virtual DSM**. You can also test new software versions in a sandbox environment, isolate your customers' machines, and increase the flexibility of your DS3018xs without spending extra cost for deployment and maintenance.

Synology iSCSI storage fully supports most virtualization solutions to enhance work efficiency with easy management interface. VMware vSphere™ 6.5 and VAAI integration helps offload storage operations and optimizes computation efficiency. Windows Offloaded Data Transfer (ODX) speeds up data transfer and migration rate, while OpenStack Cinder support turns your Synology NAS into a block-based storage component.

### Reliability, Availability & Disaster Recovery

System reliability is of paramount importance to businesses which depend upon their commercial servers every day. DS3018xs responds to these concerns with wide-ranging availability and redundancy features:

- **Synology High Availability** ensures seamless transition between clustered servers and that your services remain online in the event of unexpected disasters.
- Snapshot Replication provides schedulable, near-instantaneous data protection, ensuring business documents in shared folders, virtual machines in iSCSI LUNs, or dockerized application data remain safe and available when disasters happen.
- **Redundant system fans** and network ports with failover support ensure continual service uptime.



#### Synology Collaboration Suite

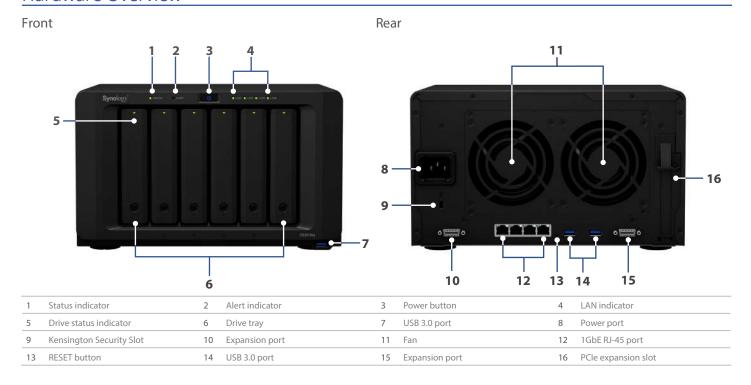
Powerful and secure private cloud solution for business collaboration and organization with simple but effective management options.



#### Virtual Machine Manager

Virtual Machine Manager implements various virtualization solutions, allowing you to manage multiple virtual machines on your DS3018xs, including **Windows**, **Linux**, and **Virtual DSM**.

## Hardware Overview



# **Technical Specifications**

#### Hardware

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CPU	Intel Pentium D1508 dual-core 2.2GHz, Turbo Boost up to 2.6GHz			
Hardware encryption engine	Yes (AES-NI)			
Memory	8GB DDR4 SO-DIMM (expandable up to 32 GB)			
Compatible drive type	<ul> <li>6 x 3.5" or 2.5" SATA SSD / HDD (drives not included)</li> <li>2 x M.2 2280/2260/2242 SATA SSD³ (drives not included)</li> </ul>			
External port	<ul><li>3 x USB 3.0 ports</li><li>2 x expansion ports</li></ul>			
Size (HxWxD)	166 x 282 x 243 mm			
Weight	5.2 kg			
LAN	4 x 1GbE (RJ-45)			
Wake on LAN/WAN	Yes			
PCIe 3.0 slot	<ul> <li>1 x 8-lane x8 slot</li> <li>10GbE network interface cards support</li> <li>M.2 SSD adapter card support</li> </ul>			
Scheduled power on/off	Yes			
System fan	2 (92 x 92 x 25 mm)			
AC input power voltage	100V to 240V AC			
Power frequency	50/60Hz, single phase			
Operating temperature	5°C to 40°C (40°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	3,048 m (10,000 ft)			

### **General DSM Specification**

Networking protocol	SMB, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN ™ , L2TP)				
File system	<ul> <li>Internal: Btrfs, ext4</li> <li>External: Btrfs, ext4, ext3, FAT, NTFS, HFS+, exFAT<sup>4</sup></li> </ul>				
Supported RAID type	RAID Group, Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, RAID 10, RAID F1				
Storage management	<ul> <li>Maximum single volume size: 108TB</li> <li>Maximum internal volume: 1,024</li> <li>Maximum iSCSI target: 64</li> <li>Maximum iSCSI LUN: 512</li> <li>iSCSI LUN clone/snapshot support</li> </ul>				
SSD cache	Read-write cache support  M.2 SATA SSD support				
File sharing capability	<ul> <li>Maximum local user account: 16,000</li> <li>Maximum local group: 512</li> <li>Maximum shared folder: 512</li> <li>Maximum concurrent SMB/NFS/AFP/FTP connection: 2,000</li> </ul>				
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, Microsoft Hyper-V® , Citrix®, OpenStack®				
Security	Firewall, Encryption shared folder, 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 and 10, Mac OS X 10.11 onwards				
Supported browser	Chrome®, Firefox®, 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, 日本語, 한국어, 繁體中文, 简体中文				

### **Packages and Applications**

MailPlus Server	Secure, reliable, and private mail solution with high-availability, load balancing, security and filtering design (Includes 5 free email account licenses; additional accounts require the purchasing of additional licenses)				
VPN Server	Maximum connection: 30, supported VPN protocol: PPTP, OpenVPN™, L2TP/IPSec				
CMS	Provide a single interface to manage and monitor multiple Synology NAS				
Active Directory Server	Provide a flexible and cost-effective domain controller solution				
Snapshot Replication	<ul> <li>Maximum of replications: 64</li> <li>Maximum of shared folder snapshots: 1,024</li> <li>Maximum of system snapshots: 65,536</li> </ul>				
High Availability Manager	Reduce service downtime by setting up two identical NAS into one high-availability cluster				
Virtual Machine Manager	Deploy and run various virtual machines on Synology NAS, including Windows, Linux, or Virtual DSM				
Surveillance Station	Maximum IP camera: 75 (total of 2,250 FPS at 720p, H.264) (Includes two free camera licenses; additional cameras require the purchasing of additional licenses)				
Cloud Sync	One or two-way synchronization with public cloud storage providers including Amazon Drive, Amazon S3-compatible storage, Baidu cloud Box, Dropbox, Google Cloud Storage, Google Drive, hubiC, MegaDisk, Microsoft OneDrive, OpenStack Swift-compatible storage, WebDAV servers, Yandex Disk				
Cloud Station Suite	Sync your data between multiple platforms by installing the client utilities on Windows, Mac, Linux, Android and iOS devices, while retaining up to 32 historical versions of files  Maximum concurrent file transfer: 2,000				
Backup tool	DSM configuration backup, macOS Time Machine support, Cloud Station Backup Shared folder sync - maximum task number: 16				
Active Backup for Server	Centralize data backup for Windows and Linux servers without client installation				
Hyper Backup	Support local backup, network backup, and backup data to public clouds				
Universal Search	Offer global search into applications and files				
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				
File Station	Virtual drive, remote folder, Windows ACL editor, compressing/extracting archived files, bandwidth control for specific users or groups, creating sharing links, transfer logs				

MailPlus	Intuitive webmail interface for MailPlus Server, customizable mail labels, filters, and user interface			
Malirius				
	Chat maximum user: 2,000			
Collaboration Suite	Office maximum user: 400, maximum simultaneous editing user: 80			
	Calendar: support CalDAV and access via mobile devices			
Note Station	Rich-text note organization and versioning, encryption, sharing, media embedding and attachments			
Storage Analyzer	Volume and quota usage, total size of files, volume usage and trends based on past usage, size of shared folders, largest/most/least frequently modified files			
Security Advisor	Malware detection/removal, user account/password, network, system-related security scan			
Antivirus Essential	Full system scan, scheduled scan, white list customization, virus definition auto update			
	Supported download protocols: BT, HTTP, FTP, NZB, eMule, Thunder, FlashGet, QQDL			
Download Station	Maximum concurrent download task: 80			
Web Station	Virtual host (up to 30 websites), PHP / MariaDB®, third-party applications support			
Other packages	Video Station, Photo Station, Audio Station, DNS Server, RADIUS Server, iTunes® Server, Log Center, third-party packages available on Package			
	Center			
iOS/Android™ applications	DS audio, DS cam, DS cloud, DS file, DS finder, DS get, DS note, DS photo, DS video, MailPlus			
Windows Phone® applications	DS audio, DS file, DS finder, DS get, DS photo, DS video			

#### **Environment and Packaging**

Environment safety	RoHS compliant			
	• DS3018xs main unit x 1			
	Quick Installation Guide x 1			
Package content	Accessory pack x 1			
	AC power cord x 1			
	• RJ-45 LAN cable x 2			
Optional accessories	• 16 GB DDR4-2133 ECC SO-DIMM (RAMEC2133DDR4SO-16G)			
	Synology E10G17-F2 / E10G15-F1 10Gbps Ethernet adapters			
	Synology M2D17 M.2 SSD adapter card			
	Synology Expansion Unit DX1215			
	Synology VS360HD			
	Surveillance Device License Pack			
	MailPlus License Pack			
Warranty	5 years			

 $<sup>*</sup> Model \ specifications \ are \ subject \ to \ change \ without \ notice. \ Please \ refer \ to \ www.synology.com \ for \ the \ latest \ information.$ 

- 1. Performance figures may vary depending on environment, usage, and configuration.
- 2. DS3018xs supports up to two Synology DX1215, sold separately.
- 3. DS3018xs supports dual M.2 SSD through M2D17 adapter card, sold separately.
- 4. exFAT Access is purchased separately in Package Center.

#### SYNOLOGY INC.

Synology is dedicated to taking full advantage of the latest technologies to bring businesses and home users reliable and affordable ways to centralize data storage, simplify data backup, share and sync files across different platforms, and access data on-the-go. Synology aims to deliver products with forward-thinking features and the best in class customer services.

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