SA3200D

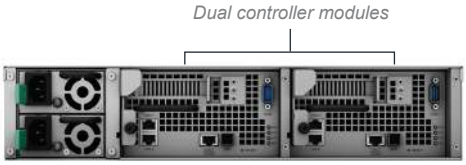


Maximize Service Availability, Minimize Downtime

Synology SA3200D features a dual controller architecture to ensure operations and core business functions are not severely impacted by a disaster or unplanned incident that take critical systems offline. The hardware redundancy mechanism leverages controllers, power supplies, and fans to prevent a single point of failure. Powered by the intuitive and feature-rich operating system DiskStation Manager (DSM), SA3200D provides comprehensive protection for network, file services, and applications.

Highlights

- Active-passive dual controller design in a single chassis, maximizing service availability with minute-level failover time[1]
- Highly available infrastructure with a competitive price-performance ratio of US$0.05 per gigabyte[2]
- A scalable shared storage architecture of more than 500 TB raw capacity with minimal performance impact[3]
- Automatic failover mechanism, protecting services in real-time and prevent a single point of failure
- Easy to deploy and manage data services intuitively with DiskStation Manager (DSM), providing a unified experience across Synology platforms and support comprehensive software applications
- Certified virtualization solution with license-free workload protection



High-Availability Design

The dual controller modules with a shared storage space maximize service availability and help IT administrators to easily deploy, scale up and manage critical services.

Designed with High Availability and Scalability

Synology SA3200D is a cost-effective yet highly available data management solution for enterprises, with a competitive price-performance ratio of $0.05 per gigabyte[2]. Underneath the 2U chassis are dual controller modules in an **active-passive architecture**, each connected to the other by the reliable, high-speed **Non-Transparent Bridge (NTB)** with low latency. Service continuity is also backed up by the hardware redundancy mechanism of modularized power supplies and fans to prevent a single point of failure.

With SA3200D, you can start small and grow in the future. It supports up to 12 x 3.5"/2.5" **SAS interface** drive slots by default, and the capacity can be further scaled up to 576 TB using two RXD1219sas[4] expansion units, with minimal performance impact[3]. Data replication is not needed for the shared storage design, saving valuable rack space and network bandwidth when compared with two devices using Synology High Availability.

Real-Time Protection with Automatic Failover

With an active-passive design consisting of dual controller modules and the built-in **Synology High Availability** (SHA) service, SA3200D is built to provide a real-time, system-level protection to maximize service availability. It actively monitors network status and critical file services of CIFS, iSCSI, AFP, FTP, NFS, and Synology Directory Server. Once a controller module or the service is unavailable, the system will fail over automatically within a minute[1] to minimize system interruption and ensure service continuity.



Synology DiskStation Manager (DSM)

DSM, is a web-based operating system designed to provide a intuitive data management experience across different hardware platforms with a user-friendly interface.

Easy to Deploy, Easy to Manage

SA3200D is designed to help IT administrators easily deploy and manage a highly available data management infrastructure. The system features straightforward, wizard-based GUI setup processes that allow you to build up a highly available service environment within minutes. Service status monitoring is made easy and intuitive.

Powered by **DiskStation Manager (DSM)**, an intuitive, user-friendly web-based operating system across Synology hardware platforms, SA3200D provides IT administrators a unified user experience without the need to adapt to different user interfaces and complex configuration settings. With a full suite of software applications supported in the **Package Center**, you can download and install a variety of packages including backup, data protection, and virtualization.

Built for Your SAN Storage Needs

Synology SA3200D provides a fully certified virtualization solution with **VMware® vSphere™**, **Microsoft® Hyper-V®**, **Citrix® XenServer™**, and **OpenStack Cinder**. It supports both **iSCSI** and **NFS** protocols and integrates with **VMware VAAI** and **Microsoft ODX**, allowing IT administrators to effectively deploy and facilitate storage operations in various virtualization environments. IT administrators can efficiently manage virtualized workloads through built-in DSM features and add-on plugins for VMware and Windows environments. Features including **fast clone**, **NFS v4.1**, and **thin provisioning** delivers more flexibility to accommodate to administration needs.

With no additional license fees required, your virtualized workload can be further protected by a complete suite of data protection applications including **Synology Snapshot Replication**, **Hyper Backup**, and **Active Backup for Business** to cover various protection scenarios.



Virtual Machine Manager

Virtual Machine Manager implements various virtualization solutions, allowing you to manage multiple virtual machines on your SA3200D, including Windows, Linux, and Virtual DSM.

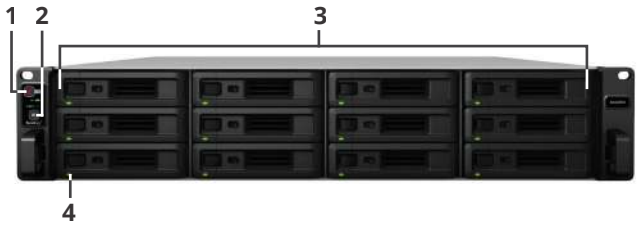
Virtualize Workloads Flexibly in a Protected Environment

Synology Virtual Machine Manager (VMM) is an intuitive hypervisor software application allowing you to easily set up virtual machines and run various operating systems, including **Windows**, **Linux**, and **Virtual DSM**. By integrating the computing and the storage nodes into one system, single vendor support experience is achieved to lower the management cost.

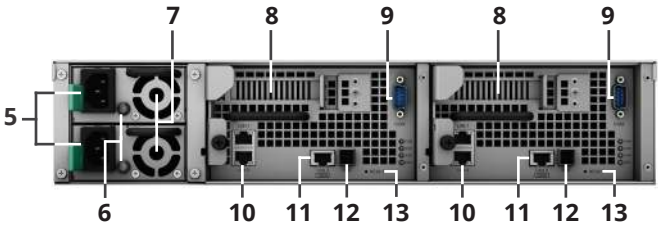
With VMM, each virtual machine can be fully protected by a set of disaster recovery features including instant snapshot, replication, clone, and restore, safeguarding your virtual machines without additional cost.

Hardware Overview

Front



Rear



1	Power button and indicator	2	Beep off button	3	Drive tray	4	Drive status indicator
5	Power port	6	PSU indicator and beep off button	7	PSU fan	8	PCIe expansion slot
9	Console port	10	1GbE RJ-45 port	11	10GbE RJ-45 (10GBase-T) port	12	Expansion port
13	Reset button						

Technical Specifications

Hardware

Number of controller module	2
CPU (per controller)	Intel Xeon D-1521 4-core 2.4 GHz, Turbo Boost up to 2.7 GHz
Hardware encryption engine	Yes (AES-NI)
Memory (per controller)	8 GB DDR4 ECC UDIMM (expandable up to 64 GB)
Compatible drive type	12 x 3.5"/2.5" SAS SSD/HDD (drives not included)
Hot swappable drive	Yes
External port (per controller)	1 x expansion port
Size (HxWxD)	• 88 x 430.5 x 692 mm • 88 x 482 x 724 mm (with server ears)
Weight	19.7 kg
LAN (per controller)	• 2 x 1GbE RJ-45 • 1 x 10GbE RJ-45 (10GBASE-T)
PCIe 3.0 slot (per controller)	• 1 x 8-lane x8 slot • High-performance network interface card support
System fan (per controller)	2 (60 x 60 x 51 mm)
AC input power voltage	100 V to 240 V AC
Power frequency	50/60 Hz, single phase
Operating temperature	0°C to 35°C (32°F to 95°F)
Storage temperature	-20°C to 60°C (-5°F to 140°F)
Relative humidity	5% to 95% RH
Maximum operating altitude	5,000 m (16,400 ft)

General DSM specifications

Networking protocol	SMB, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)
File system	Btrfs, ext4
Supported RAID type	Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, RAID 10, Synology RAID F1
Storage management	• Maximum single volume size: 108TB/200TB (at least 32 GB RAM required, for RAID 5 or RAID 6 groups only) • Maximum system snapshots: 65,536[5] • Maximum internal volume: 64
SSD cache	• Read/write cache support
File sharing capability	• Maximum local user account: 16,000 • Maximum local group: 512 • Maximum shared folder: 512 • Maximum concurrent SMB/NFS/AFP/FTP connection: 1,200
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® 6.5, 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 onwards, Mac OS X® 10.11 onwards
Supported browser	Chrome®, Firefox®, Edge®, 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, ภาษาไทย, 日本語, 한국어, 繁體中文, 简体中文

Packages and Applications

File Server & Synchronization	
Synology Drive	Provide a universal portal to synchronize your files across various platforms, including Windows, macOS, Linux, Android and iOS. The built-in universal portal allows you to access data anytime and anywhere. • Maximum number of hosted files: 3,000,000 • Maximum number of concurrent connections for PC clients: 1,800
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
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
Presto File Server[6]	High-speed data transfer over WAN with exclusive SITA technology between Synology NAS and desktop
Cloud Sync	One or two-way synchronization with public cloud storage providers including Alibaba Cloud OSS, Amazon Drive, Amazon S3-compatible storage, Backblaze B2, Baidu Cloud, Box, Dropbox, Google Cloud Storage, Google Drive, hubiC, MegaDisk, Microsoft OneDrive, OpenStack Swift-compatible storage, Tencent COS, WebDAV servers, Yandex Disk
Universal Search	Offer global search into applications and files
iSCSI Storage & Virtualization	
iSCSI Manager	• Maximum iSCSI target: 256 • Maximum iSCSI LUN: 512 • iSCSI LUN clone/snapshot support
Virtual Machine Manager	Deploy and run various virtual machines on Synology NAS, including Windows, Linux, or Virtual DSM
Data Protection & Backup Solution	
Hyper Backup	Support local backup, network backup, and backup data to public clouds
Backup tools	DSM configuration backup, macOS Time Machine support, Synology Drive Client desktop application Shared folder sync - maximum task number: 32
Snapshot Replication	• Maximum of shared folder snapshots: 1,024 • Maximum of replication: 64
Active Backup for G Suite	Support G Suite My Drive and Team Drive backup and restoration
Active Backup for Office 365	Support Office 365 OneDrive for Business, mail, contacts, and calendar backup and restoration

Active Backup for Business	All-in-one backup solution designed for heterogeneous business IT environment, enabling IT admins to remotely manage and monitor protection over PC, servers and VM on one centralized console
Productivity & Collaboration	
Collaboration tools	Collaborate with instant message service Synology Chat, online editor Synology Office, and scheduling assistant Synology Calendar • Chat maximum user: 4,000 • Office maximum user: 2,800 • Calendar: support CalDAV and access via mobile devices
Note Station	Rich-text note organization and versioning, encryption, sharing, media embedding and attachments
Surveillance	
Surveillance Station	Maximum IP camera: 100 (total of 3,000 FPS at 720p, H.264) (Including two free camera licenses. Additional cameras require the purchasing of additional licenses)
All-in-One Server	
Synology Directory Server	Provide a flexible and cost-effective domain controller solution
Central Management System	Provide a single interface to manage and monitor multiple Synology NAS
VPN Server	Maximum connection: 40. Supported VPN protocol: PPTP, OpenVPN™, L2TP/IPSec
Mail Server	Supported Mail Server Protocols: POP3, SMTP, IMAP. LDAP/AD account support
Mail Station	Webmail interface for Mail Server to receive emails from multiple POP3 mailboxes, customizable SMTP server
Web Station	Virtual host (up to 30 websites), PHP/MariaDB®, third-party applications support
Other packages	DNS Server, RADIUS Server, Log Center
Others	
Storage Analyzer	Volume and quota usage, total size of files, volume usage and trends based on past usage, size of shared folders, large files, most recently modified files, least recently accessed files
Antivirus Essential	Full system scan, scheduled scan, white list customization, virus definition auto update
Security Advisor	Malware detection/removal, user account/password, network, system-related security scan
Other packages	Additional 3rd-party packages available on Package Center

Environment and Packaging

Environment safety	RoHS compliant
Package content	• SA3200D main unit x 1 • Quick Installation Guide x 1 • Accessory pack x 1 • AC power cord x 2
Optional accessories[7]	• 8 GB DDR4-2666 ECC UDIMM (D4EC-2666-8G)/16 GB DDR4-2400 ECC UDIMM (D4EC-2400-16G) • Synology E10G17-F2/E10G18-T1/E10G18-T2 10Gbps Ethernet adapters • Synology RKS1317 - Rail Kit Sliding • Synology Expansion Unit RXD1219sas[4] • VisualStation VS360HD, VS960HD • Surveillance Device License Pack • Virtual DSM License Pack
Warranty	5 years[8]

*Model specifications are subject to change without notice. Please refer to www.synology.com for latest information.

1. The result is based on drives fully loaded in RAID 5 configuration with two volumes created, packages including Replication Service, Snapshot Replication, SMI-S Provider, MariaDB 5, MariaDB 10, Web Station and Hyper Backup are installed. It may vary depending different configurations or environments.
2. The price-performance ratio is estimated based on one SA3200D with two RXD1219sas and 36 x 12TB SAS drives. The cost of the drives may vary depending on the manufacturer or the reseller.
3. Performance figures may vary depending on the environment, usage, and configuration.
4. SA3200D can scale up to 36 drives with 2 x RXD1219sas, sold separately.
5. System snapshot includes snapshots taken by iSCSI Manager, Snapshot Replication, and Virtual Machine Manager. The availability of the listed packages may vary by model.
6. Presto File Server License is sold separately in Package Center.
7. Please refer to www.synology.com/compatibility for the latest optional accessory list.
8. The warranty period starts from the purchase date as stated on your purchase receipt. Visit https://www.synology.com/company/legal/warranty for more information.

SYNOLOGY INC.

Synology creates network-attached storage, IP surveillance solutions, and network equipment that transform the way users manage data, conduct surveillance, and manage networks in the cloud era. By taking full advantage of the latest technologies, Synology aims to help users centralize data storage and backup, share files on-the-go, implement professional surveillance solutions, and manage networks in reliable and affordable ways. Synology is committed to delivering products with forward-thinking features and the best in class customer services.

Copyright © 2020, Synology Inc. All rights reserved. Synology, the Synology logo are trademarks or registered trademarks of Synology Inc. Other product and company names mentioned herein may be trademarks of their respective companies. Synology may make changes to specification and product descriptions at anytime, without notice.

SA3200D-2020-ENU-REV001

Headquarters
Synology Inc. 9F., No.1, Yuandong Rd., Banqiao Dist., New Taipei City 22063, Taiwan Tel: +886 2 2955 1814 Fax: +886 2 2955 1884

China
Synology Shanghai
200070, Room 201, No. 511 Tianmu W. Rd., Jingan Dist. Shanghai, China

France
Synology France SARL
102 Terrasse Boieldieu (TOUR W)
92800 Puteaux, France
Tel: +33 147 176288

North & South America
Synology America Corp.
3535 Factoria Blvd SE #200 Bellevue, WA98006, USA
Tel: +1 425 818 1587

United Kingdom
Synology UK Ltd.
Unit 5 Danbury Court, Linford Wood, Milton Keynes, MK14 6PL, United Kingdom

Germany
Synology GmbH
Grafenberger Allee 295
40237 Düsseldorf, Deutschland
Tel: +49 211 9666 9666

Japan
Synology Japan Co., Ltd
4F, 3-1-2, Higashikanda, Chiyoda-ku, Tokyo, 101-0031, Japan