



# Synology NAS User's Guide

Based on DSM 6.2

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# Introduction

Congratulations on your purchase of Synology NAS. Synology NAS is a multi-functional Network-Attached Storage server, serving as a file-sharing center within your Intranet. Moreover, it is specially designed for a variety of purposes, allowing you to perform the following tasks with the web-based Synology DiskStation Manager (DSM):

## Store and Share Files over the Internet

Windows users, Mac users, and Linux users can easily share files within the Intranet or through the Internet. Unicode language support makes sharing files in different languages from Synology NAS simple.

## Scan Settings with Security Advisor

Security Advisor is a security application that scans your DSM settings and Synology NAS. It will check your settings and recommend changes that help keep your Synology NAS safe.

## Manage Files with Web-Based File Station

One of Synology DiskStation Manager's applications, File Station, can make it possible for users to manage their files on Synology NAS easily through a web interface. You can also access the files stored on Synology NAS with a mobile device.

## Transfer Files via FTP

Synology NAS provides FTP service with bandwidth restriction and anonymous login. To transfer data safely, FTP over SSL/TLS and uninvited IP auto-block are also available.

## Sync Files with Cloud Station

Cloud Station is a file sharing service that allows you to synchronize files between a centralized Synology NAS and multiple client computers, mobile and Synology NAS devices.

## Share Storage Capacity as iSCSI LUNs

You can designate portion of your Synology NAS volume space to be an iSCSI LUN, which will allow the iSCSI initiator to access the space like a local drive.

## Back Up Files on Computer and Server

Synology NAS provides various backup solutions to back up computer data to Synology NAS, back up Synology NAS data or iSCSI LUN to an external hard drive, another Synology NAS, an rsync-compatible server, Amazon S3 server, HiDrive backup server, etc.

## Enjoy Entertainment Content on the Server

Download Station allows you to download files from the Internet through BT, FTP, HTTP, eMule and NZB to Synology NAS. The Media Server and iTunes support allows computers or DMA devices within LAN to playback multimedia files on Synology NAS<sup>1</sup>.

With the USBCopy or SDCopy function, you can press the Copy button on your Synology NAS to instantly copy files from a camera or SD card to Synology NAS.<sup>2</sup>

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<sup>1</sup> For recommended peripheral models, including hard drive, USB printer, DMA, and UPS, please visit [www.synology.com](http://www.synology.com).

<sup>2</sup> USBCopy or SDCopy is supported on specific models only. Visit [www.synology.com](http://www.synology.com) for more information.

## Organize Videos with Video Station

Video Station allows you to organize your collection of movies, TV shows, and home videos into a media platform on which you can watch and play video clips, live stream and record digital TV programs with a USB DTV dongle plugged into your Synology NAS, view and edit video metadata whose information is retrieved automatically from the Internet. You can also stream videos to your iPhone or iPad for playback.

## Manage Personal Photos Smartly with Moments

Synology Moments allows you to gather all your photos and videos in one private place. This package opens a new era for photo storage, allowing random photos to be automatically sorted by an image-recognizing technique that can identify the people, subjects, and places in the photos.

## Organize Professional Photos with Photo Station

Photo Station allows you to easily organize online albums with folders. Advanced privilege and sharing settings allow professional photographers to showcase their photos and collect feedback from their clients with ease.

## Enjoy Music Anytime and Anywhere

Audio Station allows you to listen to music stored on the Synology NAS, from a connected iPod, or even stream Internet Radio stations. In addition, you can stream music from the Synology NAS with a web browser over the Internet.

## Host Websites

The Virtual Host feature allows you to host up to 30 websites using Web Station, with PHP and MySQL supported.

## Record Videos with IP Cameras

Surveillance Station allows you to manage, view, and record videos from multiple IP cameras over the network. By accessing the web-based management interface of Surveillance Station, you can watch the real-time image the camera is monitoring, and record videos continuously in motion-detection mode or in alarm-recording mode.

## Manage Multiple Synology NAS Devices

Synology CMS (Central Management System) allows you to quickly and conveniently manage multiple Synology NAS servers. Once CMS is installed, you can designate your Synology NAS server as the CMS Host and designate other servers as managed servers. The CMS Host provides a single interface to monitor and maintain the managed servers.

## Discover More Apps with Package Center

Package Center brings intuitiveness and convenience for users to easily install and update a variety of applications (which are packed into packages). Just browse all available applications and select the ones that best suit your needs. All can be done with just a few clicks.

## Set up Print Server

USB or network printers connected to your Synology NAS can be shared by client computers over the local area network. AirPrint support allows you to print to the printer from an iOS device, while Google Cloud Print support allows you to print to the printer when you are using Google products and services.<sup>1</sup>

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<sup>1</sup> For recommended peripheral models, including hard drive, USB printer, DMA, and UPS, please visit [www.synology.com](http://www.synology.com).

## Online Resources

If you cannot find what you need here, please see **DSM Help** or take a look at Synology's online resources below.

**Knowledge Base:** <https://www.synology.com/knowledgebase>

**Forum:** <https://forum.synology.com/>

**Download Center:** <https://www.synology.com/support/download>

**Technical Support:** [https://account.synology.com/support/support\\_form.php](https://account.synology.com/support/support_form.php)

# Get Started with Synology DiskStation Manager

This chapter explains how to sign into **Synology DiskStation Manager (DSM)**, customize your desktop, use the taskbar and widgets, and open applications and packages with the **Main Menu**.

## Install Synology NAS and DSM

For more information about setting up Synology NAS and installing DSM, see the *Hardware Installation Guide* for your Synology NAS model available at Synology's [Download Center](#).

## Sign into DSM

After setting up and installing DSM on your Synology NAS, you can sign into DSM using a web browser on your computer.

### To log in with Web Assistant:

- 1 Make sure your computer is connected to the same network as the Synology NAS and can access the Internet.
- 2 Open a web browser on your computer and go to [find.synology.com](http://find.synology.com).
- 3 Web Assistant will find your Synology NAS within the local network. Click **Connect** to go to the login screen.

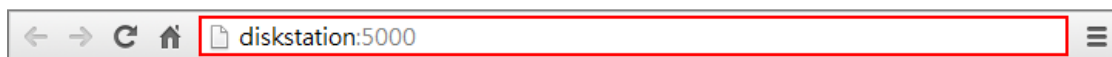
### To log in with the server name or IP address:

- 1 Make sure your computer is connected to the same network as your Synology NAS.
- 2 Open a web browser on your computer, enter any of the following in the address field, and then press Enter on your keyboard:

**http://Synology\_Server\_IP:5000**

**http://Synology\_Server\_Name:5000/** (or **http://Synology\_Server\_Name.local:5000/** on a Mac)

**Synology\_Server\_Name** should be replaced with the name you set up for Synology NAS during the initial installation process.



- 3 Set up your username and password, and click **Sign in**.

**Note:** To ensure your connection to DSM runs smoothly, please use the following browsers.

- **Chrome**
- **Firefox**
- **Safari:** 10 or later
- **Internet Explorer:** 10 or later
- **Safari:** iOS 10 or later
- **Chrome:** Android 6 or later

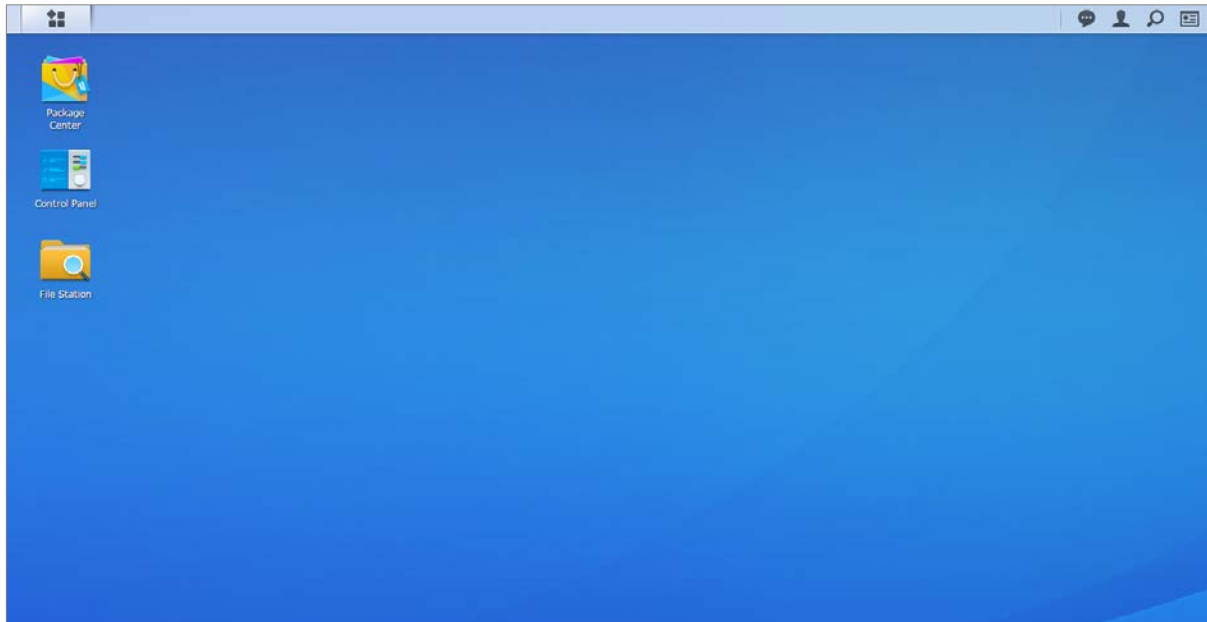


## DiskStation Manager Desktop

When you sign into DSM, you will see the desktop. From here, you can start getting things done, like manage settings, use packages, or view notifications.

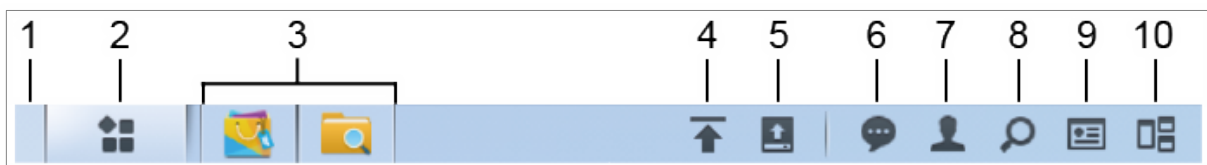
### Desktop

The desktop is where your application and package windows are displayed. You can also create desktop shortcuts to frequently used applications.



### Taskbar

The taskbar at the top of the desktop includes the following items:



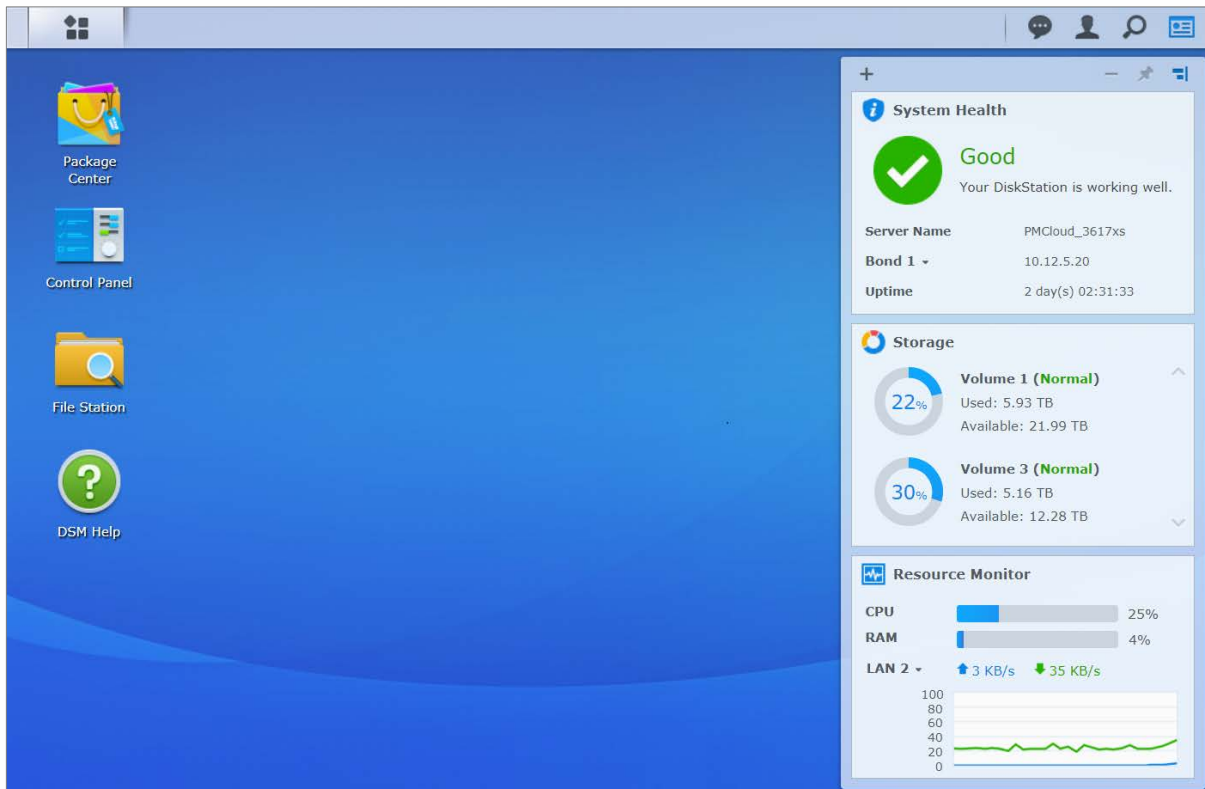
- 1 **Show Desktop:** Minimize all open application and package windows.
- 2 **Main Menu:** View and open applications and packages installed on your Synology NAS. You can also click and drag to create desktop shortcuts.
- 3 **Open applications:**
  - Click the icon of an application to show or hide its window on the desktop.
  - Right-click the icon and choose from the shortcut menu to manage the application window (**Maximize**, **Minimize**, **Restore**, **Close**) or its task bar icon (**Pin to Taskbar**, **Unpin from Taskbar**).
- 4 **Upload Queue:** Appears when you start uploading files to the Synology NAS. Click to see more details, like progress and upload speed.
- 5 **External Devices:** Appears when an external device (e.g. USB drive) is attached to your Synology NAS.
- 6 **Notifications:** Displays notifications, like errors, status updates, and package installation notifications.
- 7 **Options:** Shutdown, restart, logout, or modify personal account settings.
- 8 **Search:** Quickly find specific applications, packages, or DSM Help articles here.

**9 Widgets:** Show or hide widgets.

**10 Pilot View:** See a preview of all open application and package windows. Enable this button at **Options > Personal > Others**.

## Widgets

Widgets display various types of system information related to your Synology NAS.



### To open/close the widget panel:

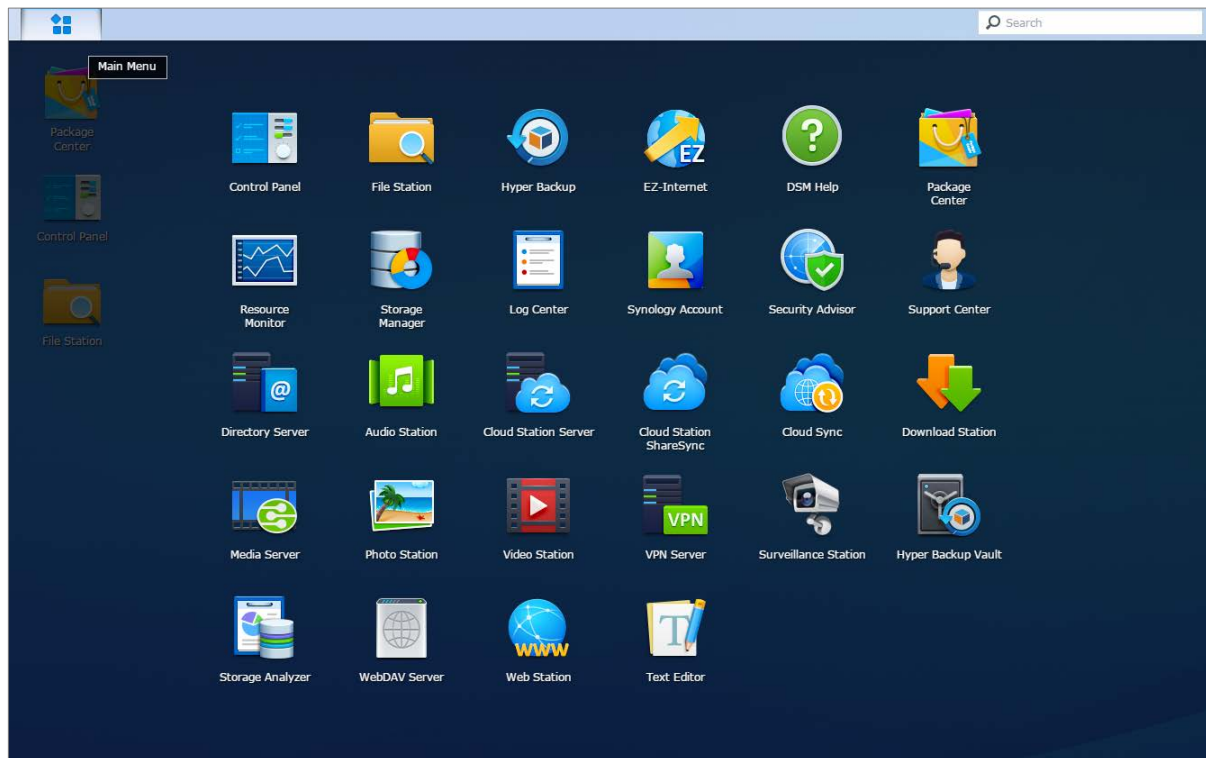
Click **Widgets** to show or hide the widgets panel.

Click the + to select which widgets to display. You can choose from the following:

- **Backup:** View the status of your backup tasks.
- **Connected Users:** See a list of users who are currently accessing Synology NAS resources.
- **File Change Log:** View the file change log records of Synology NAS services.
  - **No active logs:** Appears when none of the logs (Samba, WebDAV, FTP, File Station) is enabled.
  - **No logs available:** Appears when any one of the logs (Samba, WebDAV, FTP, File Station) is enabled.
- **Recent Logs:** View the log records of Synology NAS services.
- **Resource Monitor:** Monitor the CPU usage, memory usage, and network flow.
- **Scheduled Tasks:** View a list of upcoming tasks.
- **Storage:** View the volume usage and drive status of your Synology NAS.
- **System Health:** Obtain an overall status of your Synology NAS and all connected devices (if any). You will be advised to take corrective action when system error occurs.

## Open Applications and Packages with Main Menu

The **Main Menu** (the button at the top-left of the desktop) is where you can find all the applications and packages you have installed from **Package Center** on your Synology NAS.



### To open applications or packages:

Open **Main Menu** and click the icon of the application or package that you want to open.

### To reorder icons:

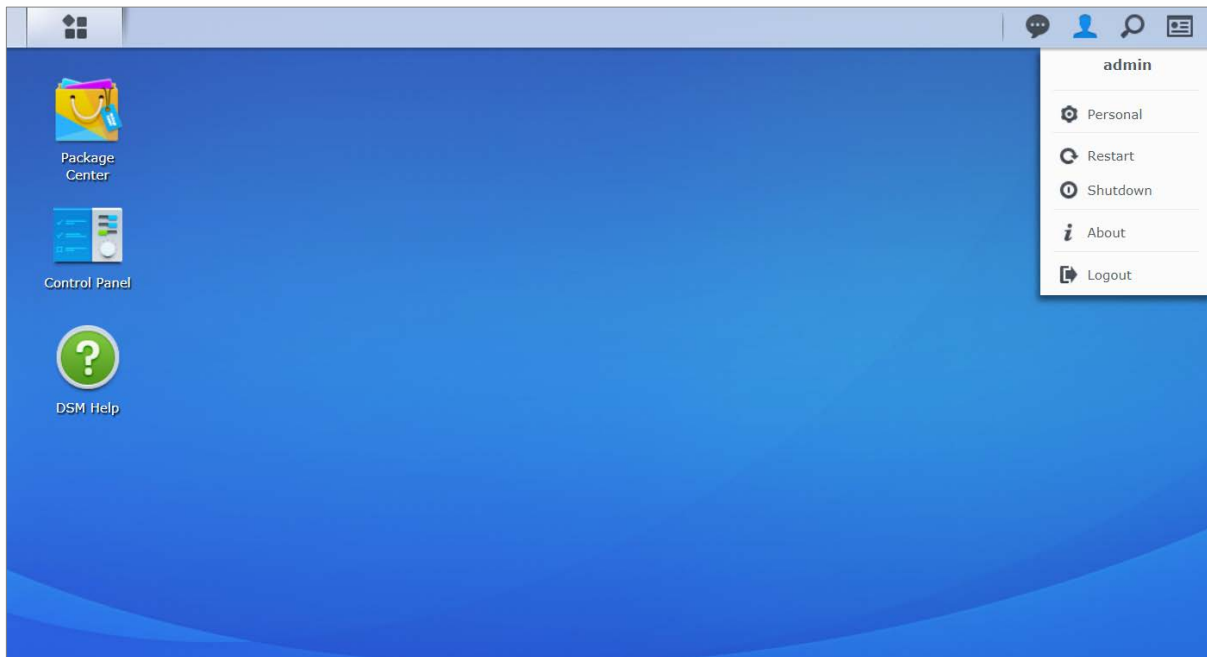
Open **Main Menu** and drag an icon to any position you want.

### To create a desktop shortcut:

Open **Main Menu** and drag an icon to the side.

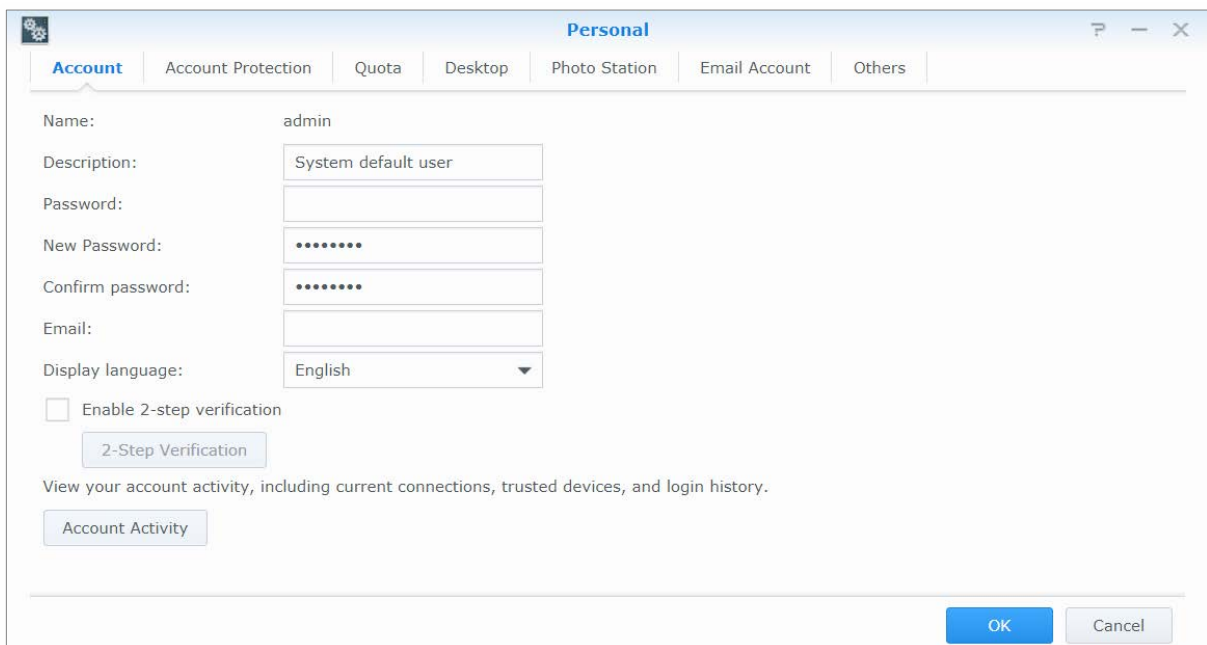
## Shutdown, Restart, Logout, or Manage Personal Settings

Click the **Options** menu (the person-shaped icon at the top right) to shutdown, restart, logout, or manage your personal account settings.



### To manage personal settings:

Select **Personal** from the drop-down menu to manage personal account settings, like password, 2-step verification, desktop, etc.



## Account

Under **Account**, you can edit your account settings, enable 2-step verification, and view recent login activity of your DSM account.

### **Limitations:**

- The user description is case sensitive and can be 0 to 64 displayable Unicode characters.
- The password is case sensitive and should be 0 to 127 displayable characters, including letters, numbers, signs, and space.

## 2-Step Verification

2-step verification provides improved security for your DSM account. If 2-step verification is enabled, you will need to enter a one-time verification code in addition to your password when logging in to DSM. Verification codes are obtained from authenticator apps installed on your mobile device. Therefore, if someone wants to access your account, he will not only need your username and password, but also your mobile device.

### **Requirements:**

2-step verification requires a mobile device and an authenticator app which supports the Time-based One-Time Password (TOTP) protocol. Authenticator apps include Google Authenticator (Android/iPhone/BlackBerry) or Authenticator (Windows Phone).

## Account Activity

**Account Activity** displays the login activity of your DSM account, including current connections, remembered devices, and login history.

## Account Protection

Under **Account Protection**, you can perform actions related to account protection, such as managing trusted clients and canceling the protection. This tab is available only when users belonging to the **administrators** group enable the account protection feature at **Control Panel > Security > Account > Account Protection**.

## Quota

Under **Quota**, you can view your quota on all Synology NAS volumes set by DSM **administrators**, as well as the amount of capacity you have used on each volume. On models with Btrfs support, you can also view the quota and capacity usage of each shared folder.

## Desktop

Under **Desktop**, you can customize the appearance of your desktop by changing the main menu style, icon size, background and text color of the desktop, or uploading images to be used as the desktop wallpaper.

## Photo Station

This tab is viewable only when users belonging to the **administrators** group enable Personal Photo Station service in Photo Station. Synology NAS provides the **home/photo** folder for you to store photos and videos that you want to share. The system will create index thumbnails of the photos and videos automatically, and then people can view photo albums via a web browser.

## Email Account

You can add or edit email accounts to send files stored in File Station as attachments using the email addresses added here.

## Others

Under **Others**, you can customize other personal settings. For more information about personal settings, please see **DSM Help**.

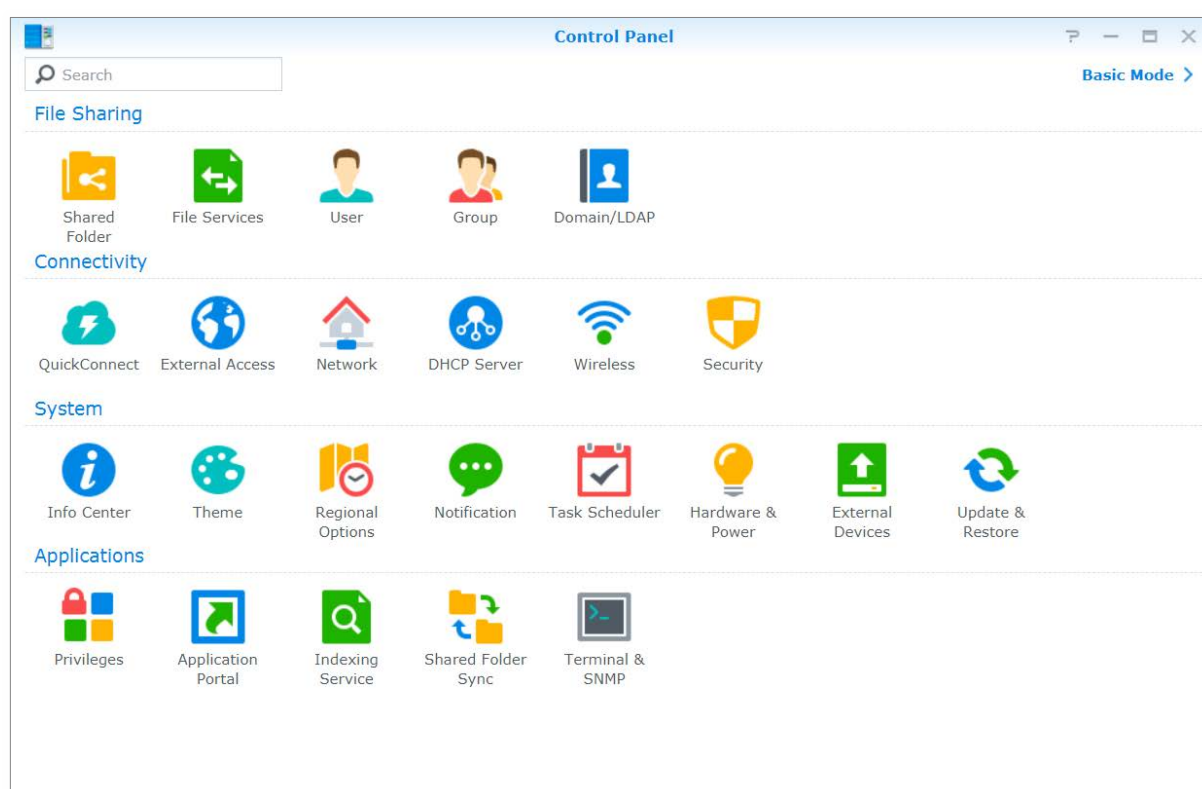
# Modify System Settings

After you have connected to Synology DiskStation Manager (DSM) and learned how to access its functions and customize its appearance, users belonging to the **administrators** group can begin to modify basic settings.

This chapter explains the basics of modifying network settings, display languages, time, and energy saving features. For more detailed instructions, please see [DSM Help](#).

## Use Control Panel

Choose **Control Panel** from the **Main Menu** to configure DSM settings.



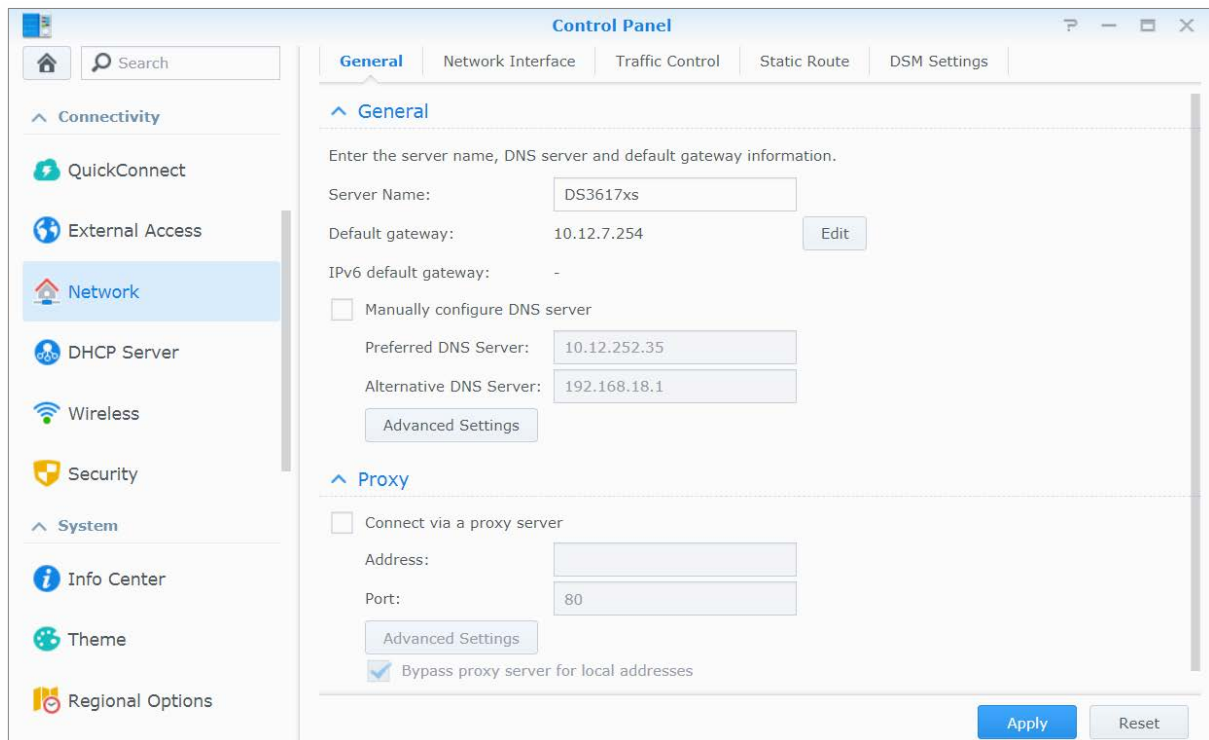
The DSM settings on the Control Panel are grouped into the following categories:

- **File Sharing:** Manage file sharing options to host your files and share with other people easily.
- **Connectivity:** Make your Synology NAS accessible over the Internet, and protect it with security mechanisms such as firewall and auto block.
- **System:** Manage system settings for your Synology NAS device.
- **Applications:** Manage general settings related to Synology-designed applications.

**Note:** Control Panel is accessible only to users belonging to the **administrators** group. See "Create Groups" for more information.

## Change Network Settings

Go to **Control Panel** > **Network** to configure network settings and connect your Synology NAS device to the Internet. You can also manage traffic control rules to adjust the outgoing traffic allowed when clients access services on your Synology NAS. For more detailed instructions, please see **DSM Help**.



### General

The **General** tab provides options to edit the name and default gateway of the Synology NAS, as well as configure domain name server, proxy server settings and IPv6 tunneling.

### Network Interface

The **Network Interface** tab provides options to manage the network interfaces with which your Synology NAS connects to the network.

### Traffic Control

Traffic control aims to control the outgoing traffic of services running on Synology NAS. Click **Create** to create traffic control rules.

### Static Route

Static route controls the path that network information must follow to reach a specific host or network on Synology NAS. Click **Create** to create a static route.

### DSM Settings

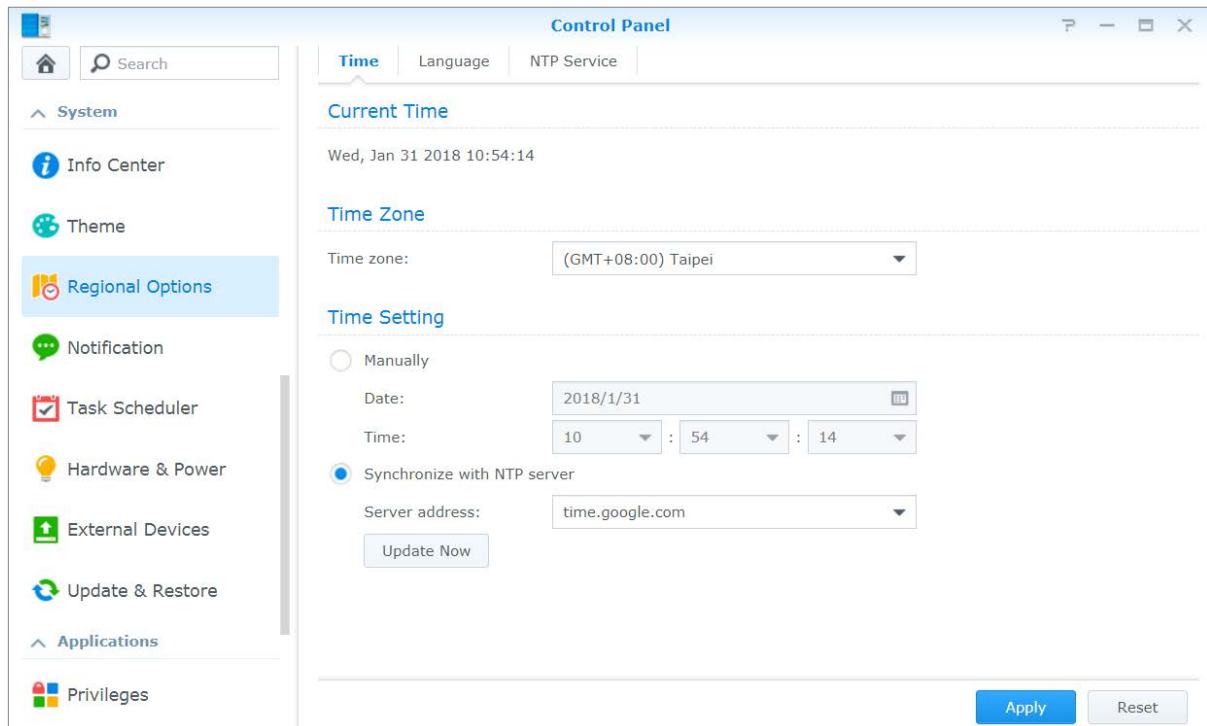
Change the port number for accessing DSM or configure HTTPS settings. When the HTTPS connection function is enabled, any connection to Synology NAS via the HTTPS protocol will be encrypted with the SSL/TLS encrypting mechanism.

## Join Wireless Network<sup>1</sup>

At **Control Panel** > **Wireless**, you can connect your Synology NAS device to a wireless network, or create a wireless hotspot to share its Internet connection with other devices wirelessly. Also, you can manage Bluetooth adapters and connect Bluetooth devices to your Synology NAS. For more detailed instructions, please see **DSM Help**.

## Modify Regional Options

Go to **Control Panel** > **Regional Options** to configure the following regional options. For more detailed instructions, please see **DSM Help**.



### Time

Click the **Time** tab to set up the system time settings of the Synology NAS. You can check the current time, manually set the server's date and time, or automatically set the time using a network time server.

### Language

Click the **Language** tab to set the language for Synology DiskStation Manager, notifications, and specify the codepage for Unicode filename conversion.

- **Display Language:** Choose your preferred display language, or have it the same as your default browser setting.
- **Notification Language:** Set your preferred language for email and instant messaging notifications from Synology NAS.
- **Codepage:** Synology NAS uses Unicode to avoid file inaccessibility from computers using different languages. But for the following devices or applications to use Synology NAS services without problem, you need to choose the appropriate codepage for them:
  - Computers without Unicode support

<sup>1</sup>Supported on specific models only.



- Applications that convert non-Unicode strings to Unicode, such as FTP service, UPnP support, music metadata indexing

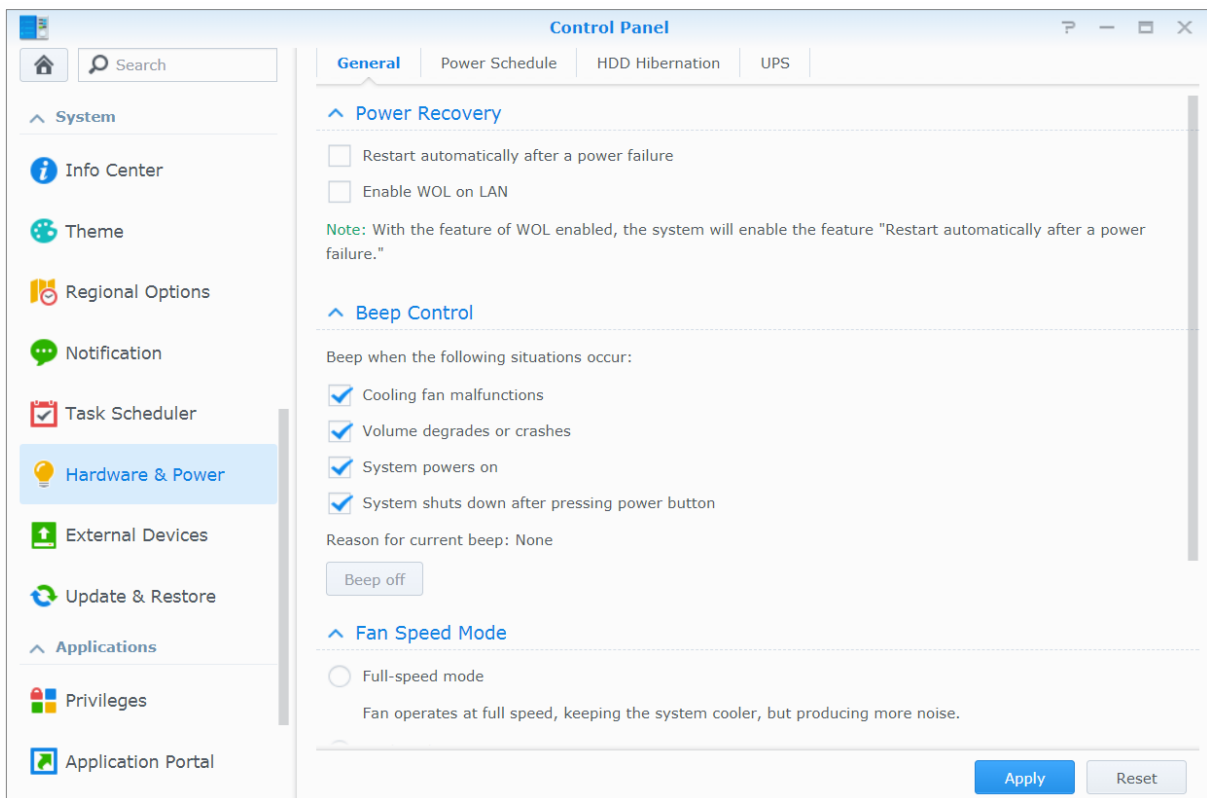
## NTP Service

Click the **NTP Service** tab to have your Synology NAS serve as a network time server to synchronize time between different network devices and the Synology NAS over network.

**Note:** The NTP service is required for Surveillance Station and Synology High Availability. Therefore, if you have Surveillance Station installed and run on your Synology NAS, the service cannot be disabled while the package is running.

## Use Energy Saving Features

Go to **Control Panel > Hardware & Power** to manage the following energy saving features provided by DSM. For more detailed instructions, please see **DSM Help**.



## General

Click the **General** tab to enable power recovery, Wake on LAN (WOL)<sup>1</sup> and Memory Compression. You can also modify beep control and fan speed mode here.

## Power Schedule<sup>1</sup>

Click the **Power Schedule** tab to start up or shut down automatically at a specified time.

## HDD Hibernation

Click the **HDD Hibernation** tab to manage drive hibernation for all internal or external drives on your Synology NAS.

When a drive enters HDD hibernation mode, it will stop spinning and become inactive, which not only saves energy but also extends the drive's lifespan.

## UPS

Under the **UPS** tab, you can modify UPS-related settings. UPS (Uninterruptible Power Supply) is a backup power device that allows the Synology NAS to continue operating for a short time if power failure occurs. This function helps prevent data loss by giving the Synology NAS enough time to save data and unmount volumes before losing power and shutting off. Synology NAS supports connecting to local or SNMP UPS devices.

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<sup>1</sup> Supported on specific models only.

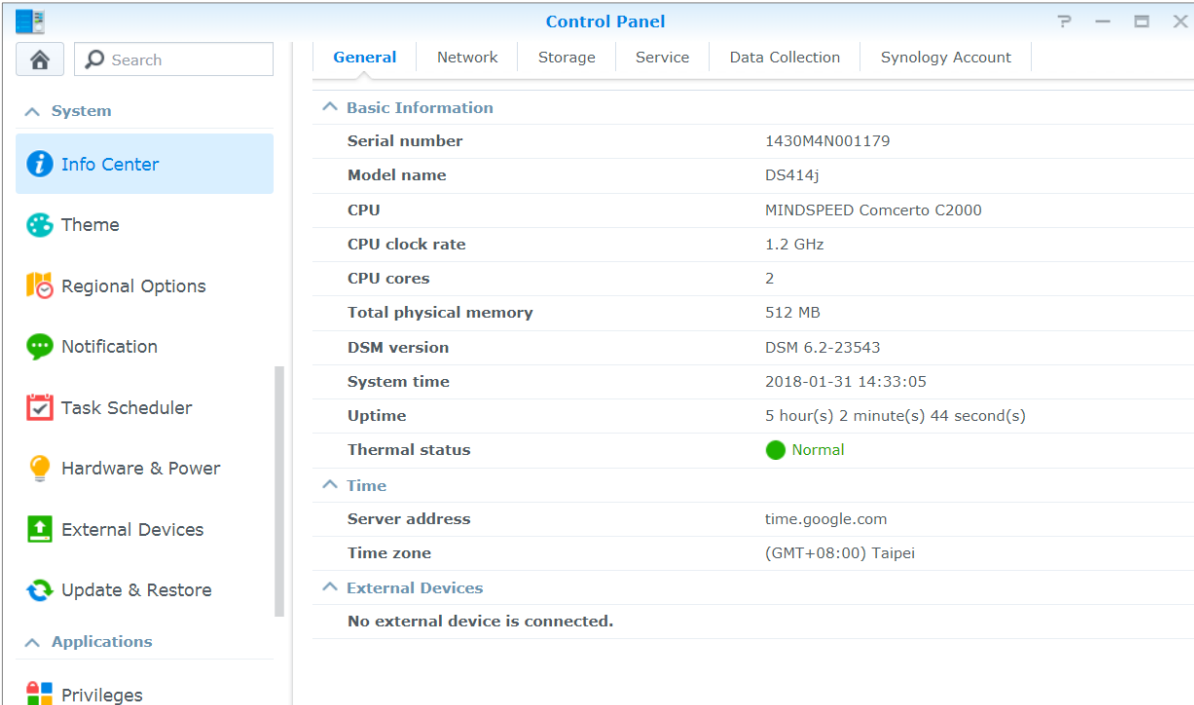
# Perform Advanced Management Tasks

Synology DiskStation Manager comes with a variety of management functions, allowing you to check system information, monitor system resources, manage notification services, restore or upgrade DSM, access applications with independent login, index multimedia files for applications and more.

This chapter explains how to comprehend advanced management functions to make sure your Synology NAS is providing the best performance. For detailed instructions, please see [DSM Help](#).

## Check System Information

Info Center provides an overview of the status of the Synology NAS and other connected devices. Go to [Control Panel](#) > [Info Center](#) to check the below information. For more detailed instructions, please see [DSM Help](#).



The screenshot displays the Synology Control Panel interface. The left sidebar shows the 'System' menu with 'Info Center' selected. The main content area is titled 'Control Panel' and has tabs for 'General', 'Network', 'Storage', 'Service', 'Data Collection', and 'Synology Account'. The 'General' tab is active, showing 'Basic Information' with the following details:

Property	Value
Serial number	1430M4N001179
Model name	DS414j
CPU	MINDSPEED Concerto C2000
CPU clock rate	1.2 GHz
CPU cores	2
Total physical memory	512 MB
DSM version	DSM 6.2-23543
System time	2018-01-31 14:33:05
Uptime	5 hour(s) 2 minute(s) 44 second(s)
Thermal status	Normal

Below the 'Basic Information' section, there are sections for 'Time' and 'External Devices':

- Time:**
  - Server address: time.google.com
  - Time zone: (GMT+08:00) Taipei
- External Devices:**
  - No external device is connected.

## General

Under the **General** tab, you can see the basic information about your Synology NAS, including serial number, model name, amount of physical memory, DSM version, time information, thermal status, and external devices.

## Network

Under the **Network** tab, you can view the status of network configuration and network interfaces.

## Storage

Under the **Storage** tab, you can check the free or used space of your Synology NAS volumes and check the status of the hard drives.

## Service

Under the **Service** tab, you can see the list of DSM services, which can be enabled or disabled by clicking **Enable** or **Disable** under the **Action** column. The checkmarks under the **Status** column indicate whether the services are enabled.

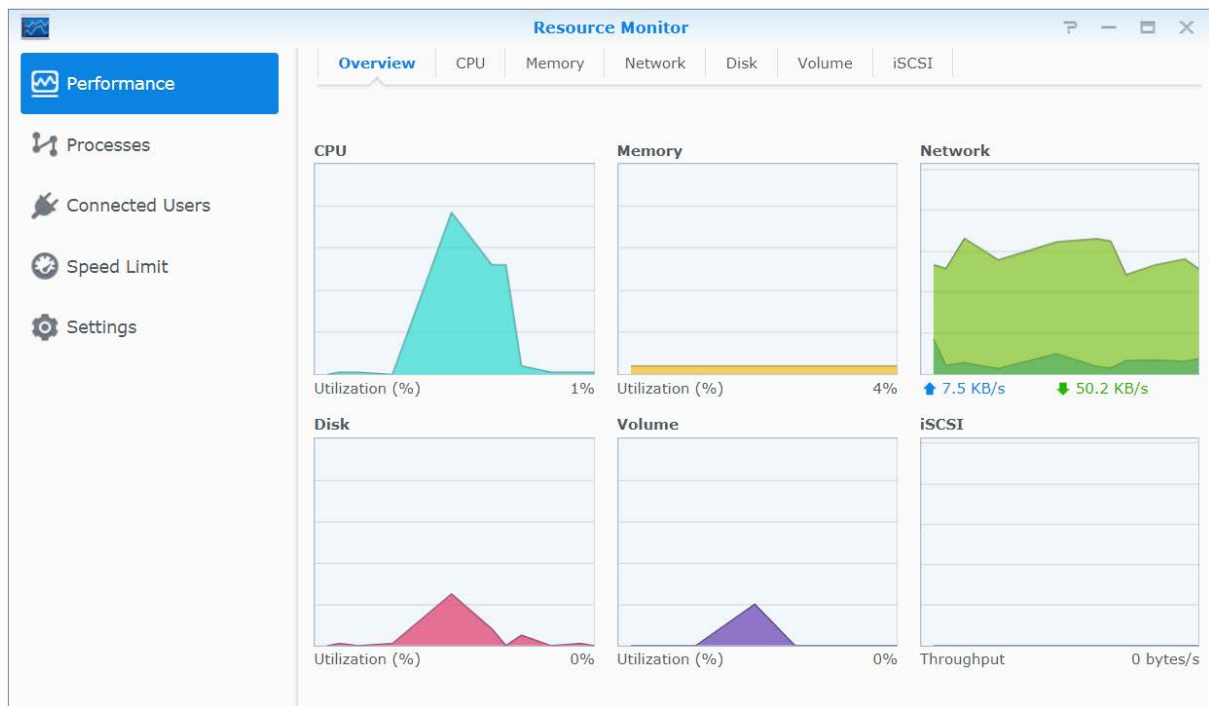
## View System Logs

**Log Center** is a centralized log management application that allows you to view and manage log records of Synology NAS services easily and efficiently. To access the advanced functions, you have to go to **Package Center** and install the **Log Center** package. For detailed instructions, please see **DSM Help**.

Date	Time	Level	Host Name	Category	Program	Messages
2018-01-05	17:28:25	Information	PMCloud_...	SYSTEM	Connection	User [admin] from [DESKTO
2018-01-05	16:38:19	Information	PMCloud_...	SYSTEM	Connection	User [admin] from [MICHAEL
2018-01-05	16:38:19	Information	PMCloud_...	SYSTEM	Connection	User [admin] from [MICHAEL
2018-01-05	16:24:40	Information	PMCloud_...	admin	Connection	User [admin] from [10.12.6.

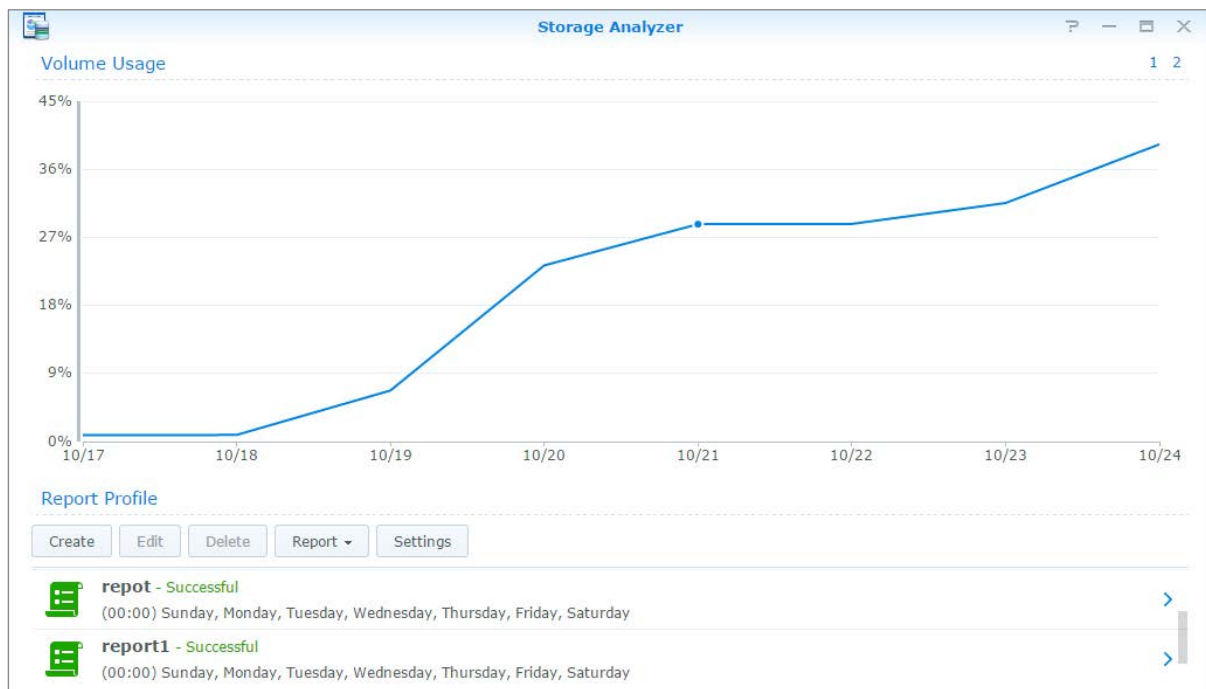
## Monitor System Resources

**Resource Monitor** allows you to monitor the CPU usage, memory usage, disk utilization and network flow. You can choose to monitor in real time or view previous data. For more detailed instructions, please see [DSM Help](#).



## Analyze System Usage

**Storage Analyzer** is an add-on package that allows you to quickly view overall usage trends of your Synology NAS, create tasks to analyze storage space usage, and generate detailed reports on volume usage. To install Storage Analyzer on your Synology NAS, go to [Package Center](#). For detailed instructions, please see [DSM Help](#).



## Scan System Settings

**Security Advisor** allows you to check and scan your DSM settings for any suspicious activities that may present security risks. For detailed instructions, please see [DSM Help](#).

**Security Advisor**

**At Risk**

Security risks were found that need your attention.  
Last scanned 2 day(s) ago.

Scan Generate reports now

	<b>Malware</b>	No malware was found on your system.	
	<b>System</b>	Your DSM is working well.	
	<b>Account</b>	All account settings are good.	
	<b>Network</b>	1 network setting(s) lead to weak security. 3 network setting(s) are recommended to be changed.	
	<b>Update</b>	3 package(s) are out-of-date.	

## Deploy High-Availability Solution

**High Availability Manager** allows you to form two servers into a “high-availability cluster”, in which one assumes the role of the active server while the other acts as the passive server. If the active server malfunctions, the passive server takes over all services, thus minimizing server downtime. For more detailed instructions, please see [DSM Help](#) and [High Availability White Paper](#).

**High Availability Manager**

**Normal**

The status of the high-availability cluster is normal.

**PMLab (192.168.18.229)**

SHA\_Office\_5F (192.168.18.227) **Active**

SHA\_Office\_6F (192.168.18.228) **Passive**

**Heartbeat**

Connection Status	Transfer Speed	Latency
Normal	98.8 KB/s	0.14 ms

**Host Utilization**

	SHA_Office_5F (Active)	SHA_Office_6F (Passive)
CPU Utilization	16%	6%
CPU Load Average	2.69 / 1 min	1.94 / 1 min

## Automate Tasks

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Go to **Control Panel** > **Task Scheduler** to schedule and run services or scripts at pre-defined times. You can create and manage tasks to automatically run user-defined scripts, empty shared folder recycle bins, or start and stop certain services. For more detailed instructions, please see **DSM Help**.

## Update DSM or Restore Defaults

---

At **Control Panel** > **Update & Restore**, you can update DSM to a newer version, back-up and restore system configurations or restore Synology NAS device to its original manufacturer settings. You can also set a schedule to install DSM updates automatically to keep your Synology NAS always up-to-date.

**Important:** The data saved on the Synology NAS will not be erased during the updating process. However, for security reason, we recommend that you back up the data first.

---

## Receive Event Notifications

---

At **Control Panel > Notification**, you can set your Synology NAS to send notifications when specific events or errors occur, notifying you via email, SMS, web browsers (Safari/Chrome), or mobile devices. For more detailed instructions, please see **DSM Help**.

---

## Access Applications with Independent Login

---

With Application Portal, you can configure the connection settings of various applications, allowing you to access and run these applications in independent browser tabs or windows. To enable Application Portal, go to **Control Panel > Application Portal**.

### Customized Alias

Applications can be opened in an independent browser window at **[http(s)://DSM server address:DSM server port number [HTTP(S)]/alias name/]** once the portal alias is set up.

### Customized HTTP(S) Ports

Applications can be opened in an independent browser window at **[http(s)://DSM server address:customized port number]** once the HTTP(S) port is set up.

---

## Index Multimedia Files for Applications

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Go to **Control Panel > Indexing Service** to automatically scan multimedia files, such as photos, music, and videos stored on your Synology NAS, and compile them into a multimedia library to be used by multimedia applications. For more detailed instructions, please see **DSM Help**.

---

## Reset Admin Password

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If you forgot the password for **admin** and are therefore unable to log in to DSM, you can reset the password to blank and set a new password.

### To reset admin's password:

Press and hold the **RESET** button on the back panel of your Synology NAS for 4 seconds until you heard a beep sound.

**Note:** Other than resetting administrator's password, using the **RESET** button will also restore the IP and DNS of Synology NAS to the default value.



## Reinstall Synology NAS

---

If you want to reinstall your Synology NAS without losing its data, you can use the **RESET** button on the back panel.

### To reinstall Synology NAS:

- 1 Press and hold the **RESET** button for about 4 seconds until the Synology NAS emits a beep sound.
- 2 Within the next 10 seconds, press and hold **RESET** button for about 4 seconds until the Synology NAS emits a beep sound.
- 3 Follow the installation instructions in the *Hardware Installation Guide* for your model available at Synology's [Download Center](#) to set up the Synology NAS.

**Important:** The data saved on the Synology NAS will not be erased during the reinstallation. However, for security reasons, we strongly recommend that you back up the data first.

## Enable SNMP Service

---

Go to **Control Panel** > **Terminal & SNMP** to enable SNMP service, which allows users to monitor Synology NAS network flow with the network management software.

## Enable Terminal Services

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Go to **Control Panel** > **Terminal & SNMP** to enable Terminal service, which allows you to use Telnet or SSH to log in to Synology NAS and modify its settings.

**Important:** Use the Terminal service with caution. Improper manipulation or modification to Synology NAS may result in system malfunction or data loss.

# Manage Storage Space

Before taking advantage of the various features of your Synology NAS, you need to set up at least one storage space. This chapter explains how Storage Manager can help you manage different types of RAID and non-RAID storage spaces such as storage pools and volumes, as well as view the status of installed drives. For more detailed instructions, please see [DSM Help](#).

## Storage Pools and Volumes

A volume is the basic storage space on your Synology NAS and is constructed on a storage pool. Before creating a volume, you need to create a storage pool first.<sup>1</sup> For Synology NAS models supporting the **quick creation mode**, you can create a volume and a storage pool at the same time and the Volume Creation Wizard will automatically optimize storage capacity and performance.<sup>2</sup> For detailed instructions, please see [DSM Help](#).

The screenshot shows the Synology Storage Manager interface. At the top, it displays a green checkmark and the word "Healthy" with the text "System is healthy." Below this, there is a section for "All Storage Pools" with a dropdown arrow. Underneath, the "Volume Status" section shows two circular progress indicators: "Volume 3 (Normal)" at 29% and "Volume 1 (Normal)" at 18%. Below the volume status, there is a table for "Storage Pool" with columns for "Storage Pool ID", "RAID type", and "Total size".

Storage Pool ID	RAID type	Total size
Storage Pool 1 (Normal)	RAID 6 (With data protection)	29.1 TB
Storage Pool 3 (Normal)	RAID 5 (With data protection)	18.2 TB

## Create Storage Pools

Go to [Storage Manager](#) > [Storage Pool](#) and click [Create](#) to choose either of the following storage pool types. For detailed instructions, please see [DSM Help](#).

Type	Description
Better performance	This type of storage pool supports only a single volume but provides better performance.
Higher flexibility	This type of storage pool supports multiple volumes, Synology Hybrid RAID (SHR), and the RAID Group feature.

<sup>1</sup> For certain models, Storage Manager will automatically create a volume and a storage pool after the installation of DSM.

<sup>2</sup> Quick creation mode is only available on models that support SHR (Synology Hybrid RAID).

## Create Volumes on Models with Quick Creation Mode

For Synology NAS models supporting the quick creation mode, you can create both a volume and a storage pool at the same time.<sup>1</sup> Go to **Storage Manager > Volume** and click **Create**. Then choose either of the following methods:

Method	Description
Quick	This is the best option for beginners. Choose this mode if you want to automatically optimize storage capacity and performance, without worrying about technical aspects, such as RAID types.
Custom	For users who want to configure the advanced options of volume creation, such as RAID types and capacity allocation.

## Create Volumes on Other Models

Make sure your Synology NAS has an existing storage pool with allocatable space. Go to **Storage Manager > Volume** and click **Create**. For detailed instructions, please see **DSM Help**.

## RAID Types

Depending on your model and number of installed hard drives, the following RAID types can be implemented when creating custom storage pools.

RAID Type	HDD #	Allowed Failed HDD #	Description	Capacity
SHR <sup>2</sup>	1	0	A <b>Synology Hybrid RAID</b> volume optimizes storage capacity and performance when combining hard drives of different sizes. SHR volumes consisting of two or three hard drives provide 1-drive fault tolerance, while SHR volumes consisting of four or more hard drives can provide 1- or 2-drive fault tolerance.	1 x (HDD size)
	2-3	1		Optimized by the system
	≥ 4	1-2		
Basic	1	0	A <b>Basic</b> volume is created with one hard drive as an independent unit. When creating a Basic volume, you can select only one hard drive at a time.	1 x (HDD size)
JBOD	≥ 1	0	<b>JBOD</b> is a collection of hard drives.	Sum of all HDD sizes
RAID 0	≥ 2	0	Combining multiple drives to build a storage space, <b>RAID 0</b> offers <b>Striping</b> , a process of dividing data into blocks and spreading the data blocks across several hard drives, but without safety measures.	Sum of all HDD sizes
RAID 1	2-4	(HDD #) - 1	The system will write identical data to each hard drive at the same time, so data integrity is protected when at least one drive is normal.	Smallest HDD size
RAID 5	≥ 3	1	This configuration includes a backup option. It uses parity mode to store redundant data on space equal to the size of one drive for later data recovery.	(HDD # - 1) x (Smallest HDD size)
RAID 6	≥ 4	2	<b>RAID 6</b> provides extra data protection. It uses parity mode to store redundant data on space equal to the size of two drives for later data recovery.	(HDD # - 2) x (Smallest HDD size)

<sup>1</sup> Quick creation mode is only available on models that support SHR (Synology Hybrid RAID).

<sup>2</sup> RAID types except for Basic are supported on specific models only. Visit [www.synology.com](http://www.synology.com) for more information.

RAID Type	HDD #	Allowed Failed HDD #	Description	Capacity
RAID 10	$\geq 4$ (even number)	1 HDD within each RAID 1 group / Half of the total HDD	<b>RAID 10</b> has the performance of <b>RAID 0</b> and data protection level of <b>RAID 1</b> . <b>RAID 10</b> combines two hard drives into a RAID 1 group, and combines all the groups with RAID 0.	(HDD # / 2) x (Smallest HDD size)
RAID F1	$\geq 3$	1	<b>RAID F1</b> implements block-level striping with parity data distributed across all member drives. It writes more parity information on a certain drive to prevent all of the drives from failing at the same time. Recommended for an all-flash array.	(HDD # - 1) x (Smallest HDD size)

## Repair Storage Pools

The repair function is available for RAID 1, RAID 10, RAID 5, RAID 6, RAID F1, and SHR storage pools. Depending on your RAID types, when one of the hard drives in the storage pool fails, the status of the storage pool will change to **degraded**. You can repair the storage pool by replacing crashed drives to keep the data on the storage pool protected. For more detailed instructions, please see [DSM Help](#).

## Change RAID Type

The RAID types of existing storage pools can be changed without losing existing data, allowing you to easily and economically manage storage capacity. For example, you can create a RAID 1 volume on your Synology NAS, and later change to RAID 5 if you install more hard drives.

The sections below provide basic information regarding changing RAID types. For more detailed instructions, please see [DSM Help](#).

## Supported RAID Types

RAID types can be changed as follows.

RAID Type	Can be changed to...
Basic	RAID 1, RAID 5
RAID 1	RAID 5
RAID 1 (Add mirror disks to RAID 1)	RAID 1 (For increasing redundancy)
RAID 5	RAID 6
SHR-1	SHR-2

## Hard Drive Requirements

In order to change the RAID type of a storage pool, there must be a sufficient number of available hard drives installed in your Synology NAS. Please see below for the minimum number of hard drives required for each RAID type.

RAID Type	Minimum Hard Drives
RAID 1	2 or 4
RAID 5	3
RAID 6	4
SHR-2	4 or 5 (depending on the drive constitution of SHR-1)

## Expand Volumes and Storage Pools

The storage capacity of volumes and storage pools can be gradually expanded by installing more or larger hard drives. This feature allows you to expand the capacity of your volume and storage pool according to your budget and with no need to worry about losing any existing data.

The sections below provide basic information regarding expanding volumes and storage pools. For more detailed instructions, please see [DSM Help](#).

### Expand a Volume

For a volume created on a storage pool with multiple volume support (higher flexibility), if the underlying storage pool has enough capacity, you can expand the volume directly by changing its size. For a volume created on a storage pool without multiple volume support, you need to expand the underlying storage pool first. For more detailed instructions, please see [DSM Help](#).

### Expand a Storage Pool by Replacing Drives

For SHR, RAID 1, RAID 5, RAID 6, RAID 10, and RAID F1, the storage capacity of storage pools can be expanded by replacing smaller hard drives with larger ones. When expanding storage capacity with this method, please carefully replace each hard drive one-by-one. After replacing one hard drive, the storage pool must be repaired before the next hard drive is replaced. For more detailed instructions, please see [DSM Help](#).

Please see the following table to see which hard drive should be replaced first.

RAID Type	Notes
SHR (Synology Hybrid RAID)	If the capacity of all member hard drives is equal, then you should replace at least two hard drives. Otherwise, the capacity of your storage pool will not expand.
	If the capacity of member hard drives is different, then the new, replacement hard drives should be equal to or larger than the largest existing hard drive. In addition, you should replace smaller member hard drives first in order to optimize capacity usage.
RAID 1, RAID 5, RAID 6, RAID 10	When replacing hard drive of storage pools in these RAID types, the smallest drive should always be replaced first in order to maximize drive usage.

### Expand a Storage Pool by Adding Drives

For SHR, JBOD, RAID 5, RAID 6, and RAID F1, the storage capacity of storage pools can be expanded by adding more hard drives if there are empty hard drive bays in your Synology NAS. For more detailed instructions, please see [DSM Help](#).

Please see the following table regarding the minimum size of new hard drives.

RAID Type	Minimum Hard Drive Size
SHR	The capacity of the drive you wish to add must be equal to or larger than the largest drive in the storage pool, or be equal to any of the drives in the storage pool. For example, if your SHR volume is composed of three drives – 2 TB, 1.5 TB, and 1 TB, respectively – then the capacity of the new drive must be at least 2 TB or equal to 1.5 TB or 1 TB.
RAID 5, RAID 6, RAID F1	The capacity of the drive you wish to add must be equal to or larger than the smallest drive in the storage pool. For example, if your volume is composed of three drives – 2 TB, 1.5 TB, and 1 TB, respectively – then the capacity of the new drive must be at least 1 TB.

## RAID/File System Scrubbing

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RAID/file system scrubbing is a data maintenance function that inspects storage pools and repairs any detected data inconsistencies. RAID scrubbing can be used with storage pools that implement SHR (comprised of three or more drives), RAID 5, RAID 6, or RAID F1. File system scrubbing can be used with volumes in Btrfs file system.

We recommend regularly performing RAID/file system scrubbing in order to maintain data consistency and avoid losing any critical data in the event of drive failure. For detailed instructions, please see [DSM Help](#).

## SSD TRIM

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If a volume consists entirely of SSDs (Solid State Drives), we recommend enabling SSD TRIM. This feature optimizes the read and write performance of volumes created on SSDs, increasing efficiency as well as extending the lifetime of your SSDs.

Before trying to set up SSD TRIM, please see [DSM Help](#) for detailed instructions and more limitations.

**Note:**

- SSD TRIM is only available on certain Synology NAS models and RAID types.
- Some SSD models are not able to perform SSD TRIM on RAID 5 and RAID 6 volumes. Please refer to the compatibility list at [www.synology.com](http://www.synology.com).

## Manage Hard Drives

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The **HDD/SSD** tab allows you to monitor the status of the hard drives installed in your Synology NAS, providing options to manage and analyze hard drive performance and health. To see this tab, go to [Storage Manager](#) and click **HDD/SSD**. For more detailed instructions, please see [DSM Help](#).

### Enabling Write Cache Support

Enabling write cache support enhances the performance of your Synology NAS. Only certain hard drive models support this feature. To ensure data protection while using write cache support, usage of a UPS device is strongly recommended. We also suggest the system be shut down properly every time after use. Disabling write cache will reduce the chances of data loss caused by abnormal power outages, but system performance will decline.

### Running S.M.A.R.T. Tests

Drive S.M.A.R.T. tests examine and report the status of your hard drive, alerting you to possible drive failures. We recommend promptly changing your drive if any errors are detected. S.M.A.R.T. tests can also be scheduled to run automatically by creating tasks.

### Checking Drive Info

At [Storage Manager](#) > **HDD/SSD** > **HDD/SSD**, click on the down arrow next to the name of a hard drive to view the hard drive's model name, serial number, firmware version, and total size.

## SSD Cache

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SSD cache<sup>1</sup> drives can be installed and mounted in a read-only (RAID 0) or read-write (RAID 1, RAID 5, RAID 6) configuration to boost the read/write speed of a volume. You can create a cache and view related information at **Storage Manager > SSD Cache**.

Please refer to the *Hardware Installation Guide* of your Synology NAS for information regarding SSD installation. For more detailed information regarding SSD management, please see **DSM Help** or **Synology SSD Cache White Paper**.

## Hot Spare

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Hot spare<sup>2</sup> drives are standby hard drives that can repair a degraded storage pool by automatically replacing a failed drive. Hot spare drives can be globally assigned to protect any storage pool within your Synology NAS, as long as the storage pool matches the following criteria:

- The RAID type of the storage pool must be one with data protection (i.e. RAID 1, RAID 5, RAID 6, RAID 10, RAID F1).
- The hot spare drive size must be equal to or larger than the size of the smallest drive in the storage pool.

### Managing Hot Spares

Go to **Storage Manager > Hot Spare > Manage** to assign and manage hot spare drives. For more detailed information, please see **DSM Help**.

## Manage External Drives

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External USB or eSATA drives can be attached to the USB or eSATA port of your Synology NAS for backup or file sharing purposes.<sup>3</sup>

Go to **Control Panel > External Devices** to manage attached external drives or setup printers. The **External Devices** tab provides options to view device information, change formats, or eject the device. The **Printer** tab provides options to setup USB or network printers. For more detailed instructions, please see **DSM Help**.

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<sup>1</sup> SSD cache is supported on specific models only. Visit [www.synology.com](http://www.synology.com) for more information

<sup>2</sup> The hot spare feature is available on specific models only.

<sup>3</sup> eSATA is supported on specific models only. Visit [www.synology.com](http://www.synology.com) for more information.

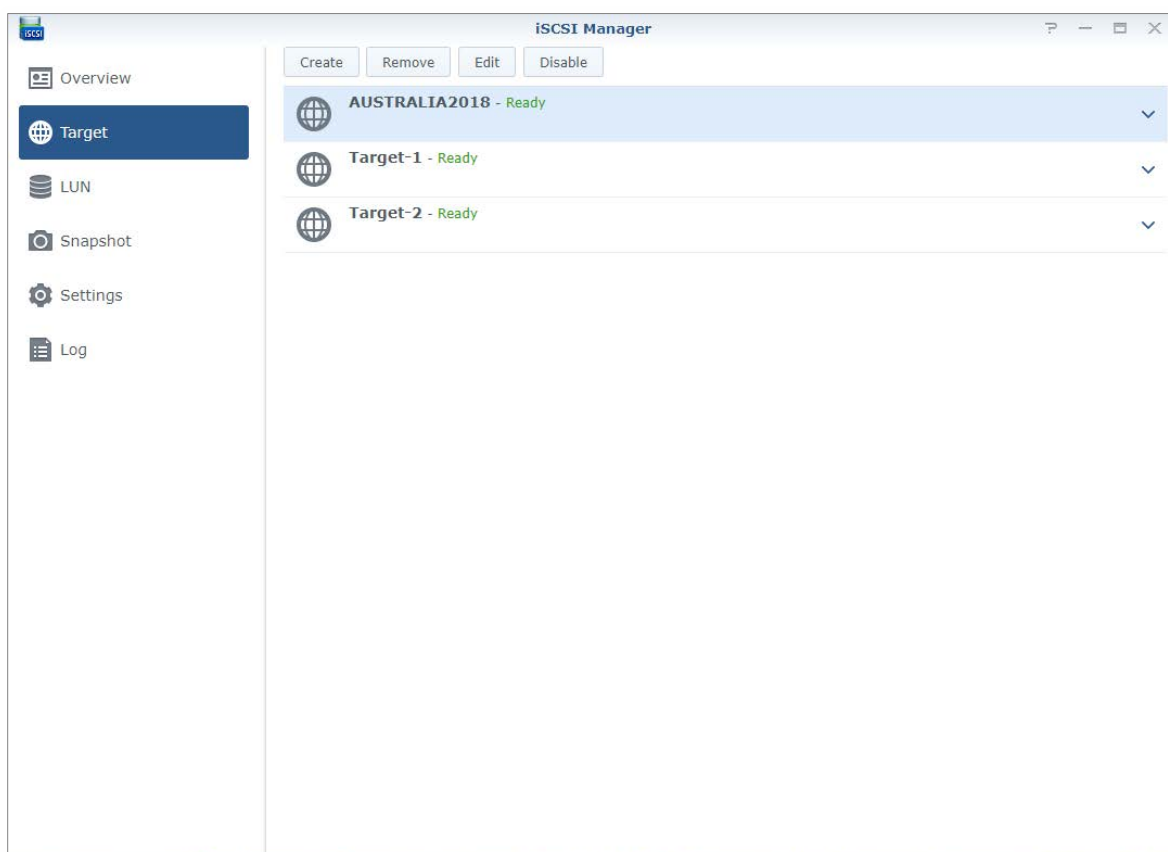
# Manage iSCSI Service

iSCSI (Internet Small Computer System Interface) is a type of storage area networking (SAN) service that provides access to consolidated, block level data storage. The main use of iSCSI is to facilitate data transfers over intranets, allowing users to manage storage over long distances.

The chapter provides basic information on how to manage your iSCSI service with iSCSI Manager. For more detailed instructions, please see [DSM Help](#).

## Manage iSCSI Targets

Go to [iSCSI Manager](#) > [Target](#) to create, remove, edit, or disable an iSCSI Target. The maximum number of iSCSI Targets varies depending on the model. For more detailed instructions, please see [DSM Help](#).





## Manage iSCSI LUNs

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An iSCSI LUN (logical unit number) represents an individually addressable portion of an iSCSI Target. An iSCSI LUN can be mapped to multiple iSCSI Targets to perform storage operations such as read or write.

Go to **iSCSI Manager** and click the **LUN** tab to manage iSCSI LUNs on your Synology NAS. The maximum number of iSCSI LUNs varies depending on the model. For more detailed instructions and limitations, please see **DSM Help**.

### LUN Types

A volume must be created first in Storage Manager before you create a LUN. Synology NAS currently provides the following LUN types:

- LUNs with new Advanced LUN features, which support instant snapshots.
- LUNs with Thin Provisioning, including LUNs with legacy Advanced LUN features.
- LUNs without Thin Provisioning; may have better performance in most cases.

**Important:** Only LUNs with new Advanced LUN features support instant snapshots. This type of LUN must be created on Btrfs volumes and are available in DSM 6.2 onwards.

## Take iSCSI LUN Snapshots

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A snapshot of an iSCSI LUN is a point-in-time, read-only copy of an iSCSI LUN. It is efficient for your valuable storage space and also increases the level of protection, letting you easily restore valuable data.

Go to **iSCSI Manager** and click the **Snapshot** tab to take iSCSI LUN snapshots. For more detailed instructions, please see **DSM Help**.

## Register iSCSI Targets with an iSNS Server

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iSNS (Internet Storage Name Service) provides the mechanism for centralized management. You can register all the iSCSI Targets with an iSNS server at **iSCSI Manager > Settings**.

## Set I/O Queue Depth

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I/O queue depth determines the maximum number of iSCSI commands that can be sent to the queue during each iSCSI session. A longer queue depth may help enhance throughput in 10/40 GbE network and SSD environments. Queue depth set as 1 may help with latency or stability issues. Go to **iSCSI Manager > Settings** to set the I/O queue depth according to your needs.

# Access your Synology NAS from the Internet

You can connect to your Synology NAS over the Internet, allowing its services to be accessible from anywhere and anytime.

This chapter explains the basics regarding using the Synology EZ-Internet wizard, advanced port forwarding functions, and DDNS hostname registration to connect your Synology NAS to the Internet. For more detailed instructions, please see [DSM Help](#).

## Use the EZ-Internet Wizard

The **EZ-Internet** Wizard can set up access via the Internet with an easy-to-use wizard, without going through the complicated firewall settings, PPPoE setup, DDNS registration, and router port forwarding configuration.



## Set Up Port Forwarding Rules for Router

If your Synology NAS is within the local network, you can set up port forwarding rules for the router to allow your Synology NAS to be accessible over the Internet.

**Note:** Before you start, make sure you have manually assigned a static IP address for your Synology NAS. See "Network Interface" for more information.

Go to **Control Panel > External Access > Router Configuration** to set up your router and port forwarding rules. For more detailed instructions, please see **DSM Help**.

**Note:** To configure port forwarding rules and assign static IP address, you must have the administrative permission to the router.

### Set up Router

Before adding port forwarding rules with DSM, you need to set up Synology NAS device's connection to the router. To begin, please click the **Set up router** button.

### Add Port Forwarding Rules

Add port forwarding rules to specify the destination ports of your Synology NAS that will receive packages from specific router ports. Click **Create** to start creating port forwarding rules.

## Register DDNS for the Synology NAS

DDNS (Dynamic Domain Name Service) simplifies connecting to your Synology NAS over the Internet by mapping a hostname to its IP address. For example, DDNS allows you to access your Synology NAS using a domain name (e.g. www.john.synology.me), with no need to remember an IP address (e.g. 172.16.254.1).

### Service Requirements

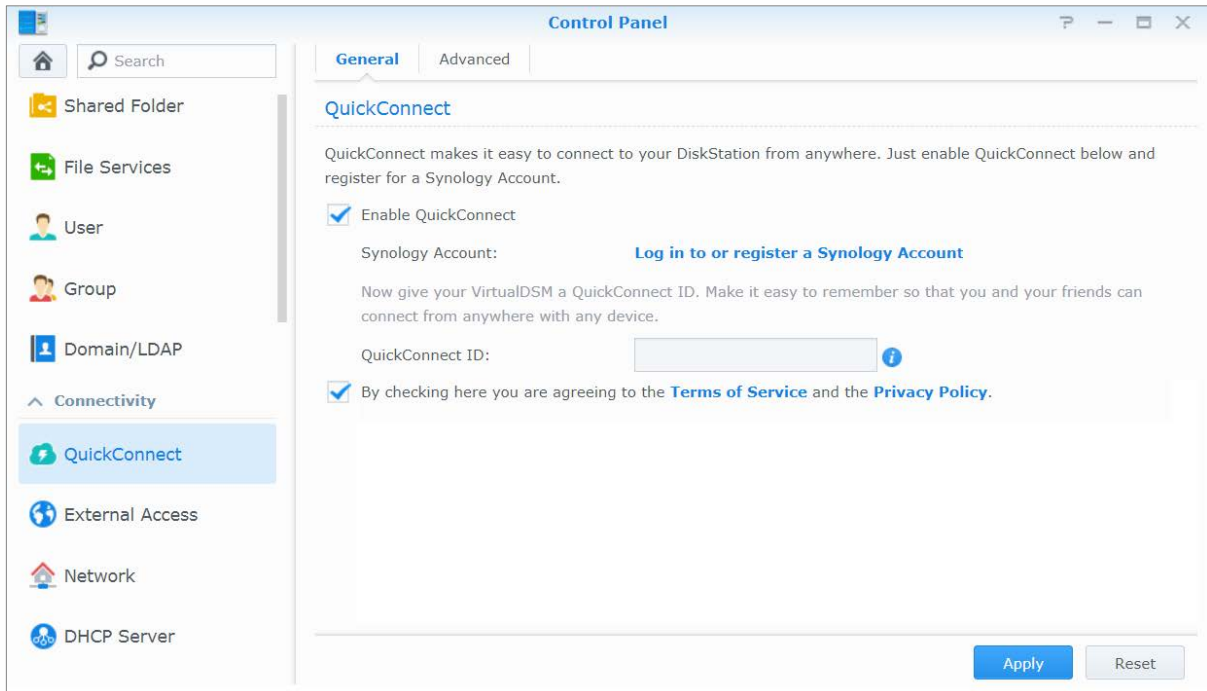
- The servers of the DDNS service provider are working normally.
- The Synology NAS is able to connect to the Internet.
- DDNS will only run in a network environment where there is no proxy server required.
- You can only enter one hostname for each DDNS provider.

### Register a DDNS hostname for Synology NAS

Go to **Control Panel > External Access > DDNS**. You can point an existing hostname at the IP address of your Synology NAS, or register for a new one provided by Synology or several other DDNS providers. Please consult each provider for more details regarding hostname registration.

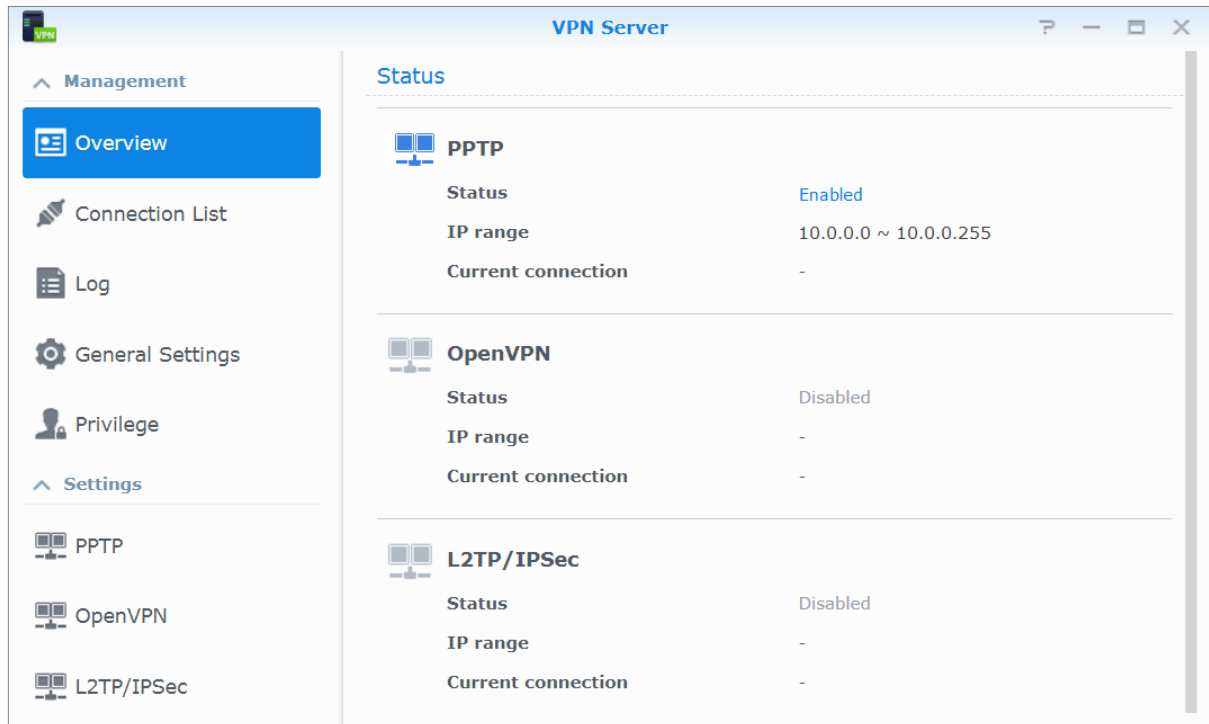
## Access DSM Services via QuickConnect

QuickConnect is a solution that helps client applications (such as DS file, Cloud Station utilities, DS audio, etc.) connect to your Synology NAS via the Internet without setting up port forwarding rules. Go to **Control Panel** > **QuickConnect** to manage the QuickConnect service. For more details regarding QuickConnect, please see **DSM Help**.



## Set Up VPN Connection

**VPN Server** is an add-on package that enables your Synology NAS to become a PPTP, OpenVPN, or L2TP/IPSec VPN (virtual private network) server, allowing DSM local users over the Internet to access resources shared within local area network of the Synology NAS.



### Set up your Synology NAS as a VPN Server

To install VPN Server on your Synology NAS, go to **Package Center**. For more information about VPN Server, run and launch the package, and then click on the **DSM Help** button (with a question mark) at the top-right corner.

### Connect your Synology NAS to a VPN Server

Go to **Control Panel** > **Network** > **Network Interface** to set your Synology NAS as a VPN client to connect to a VPN server, and then gain access to the virtual private network. For each VPN server, you can create or modify its connection profile, and then use the profile to connect to the server with a simple click.

**Note:** Your Synology NAS cannot be set as a VPN server and client at the same time.

# Enhance Internet Security

After your Synology NAS is available on the Internet, you will need to safeguard it against any attacks from Internet hackers.

This chapter explains how to set up firewall, enable DoS protection and enable auto block. For more detailed instructions, please see [DSM Help](#).

## Prevent Unauthorized Connection with Firewall

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The built-in firewall can prevent unauthorized logins, and control which services can be accessed. In addition, you can choose to allow or deny access to certain network ports from specific IP addresses.

Go to [Control Panel](#) > [Security](#) > [Firewall](#) > [Edit Rules](#), and click [Create](#) to create firewall rules.

### Apply Firewall Rules to Ports

In the [Ports](#) section, apply firewall rules to all ports or selected ports using one of the following options:

- **All:** Choose this option to apply the rule to all ports on Synology NAS.
- **Select from a list of built-in applications:** Tick the system services that will be included in the rule.
- **Custom:** Specify the type and protocol of the port, and enter the custom port number.  
You can enter up to 15 ports separated with comma, or by specifying a port range.

### Apply Firewall Rules to Source IP Addresses

In the [Source IP](#) section, choose to allow or deny access from a source IP addresses using one of the following options:

- **All:** Choose this option to apply the rule to all source IP addresses.
- **Specific IP:** Choose this option to apply the rule to an IP address.
- **Region:** Choose this option to apply the rule to a region.

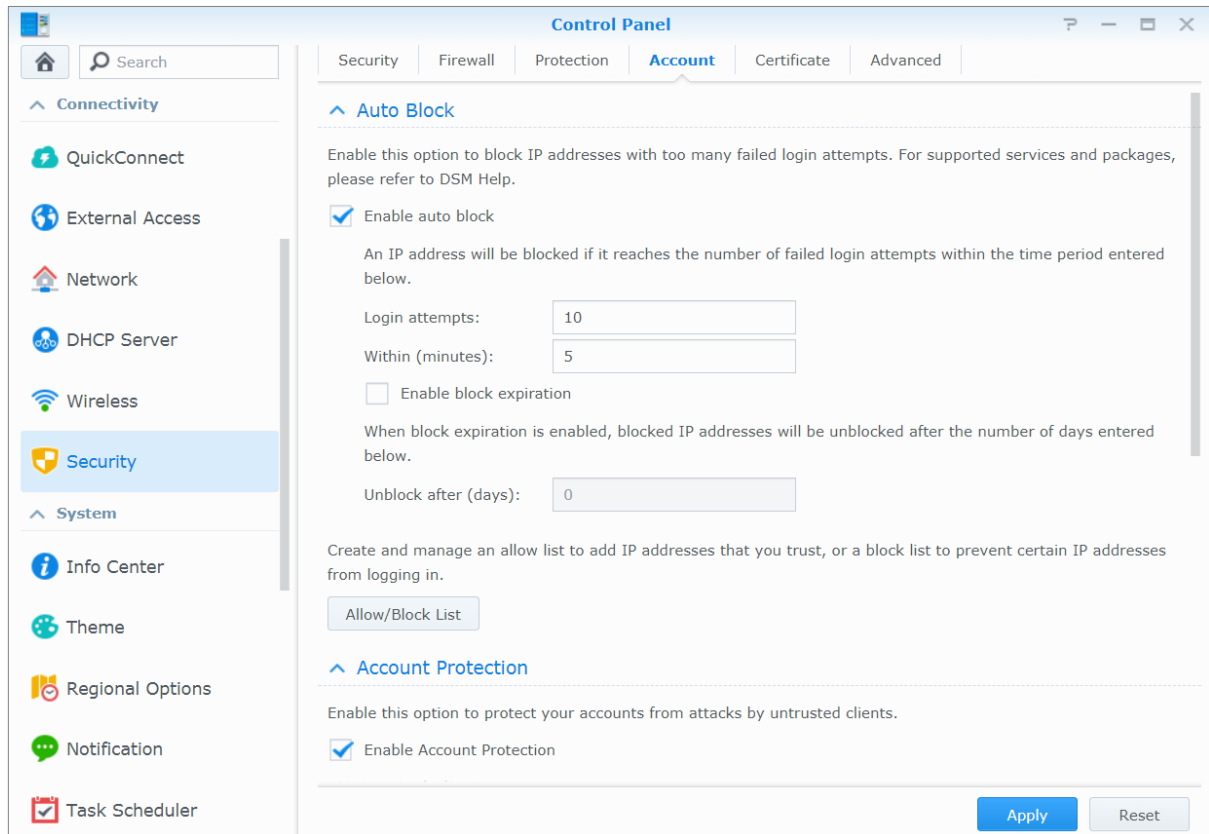
## Prevent Attacks over the Internet

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Denial-of-service (DoS) protection helps to prevent malicious attacks over the Internet. Go to [Control Panel](#) > [Security](#) > [Protection](#) to enable DoS protection and improve network security.

## Automatically Block Suspicious Login Attempts

Auto block allows you to prevent unauthorized login. After enabling the service, an IP address will be blocked if it has too many failed login attempts. Go to **Control Panel > Security > Account** to create and manage your block list and allow list.



The screenshot displays the Synology Control Panel interface. The left sidebar shows the navigation menu with categories: Connectivity, System, and Security. The 'Security' category is selected, and the 'Account' sub-tab is active. The main content area is titled 'Auto Block' and contains the following settings:

- Enable auto block:** A checked checkbox.
- Login attempts:** A text input field containing the value '10'.
- Within (minutes):** A text input field containing the value '5'.
- Enable block expiration:** An unchecked checkbox.
- Unblock after (days):** A text input field containing the value '0'.

Below these settings, there is a section for 'Account Protection' with a checked checkbox for 'Enable Account Protection'. At the bottom right of the panel, there are 'Apply' and 'Reset' buttons.

# Set Up File Sharing

Synology NAS can become the file sharing center within the local network or over the Internet, allowing users to access its files anytime and anywhere. For more detailed instructions, please see [DSM Help](#).

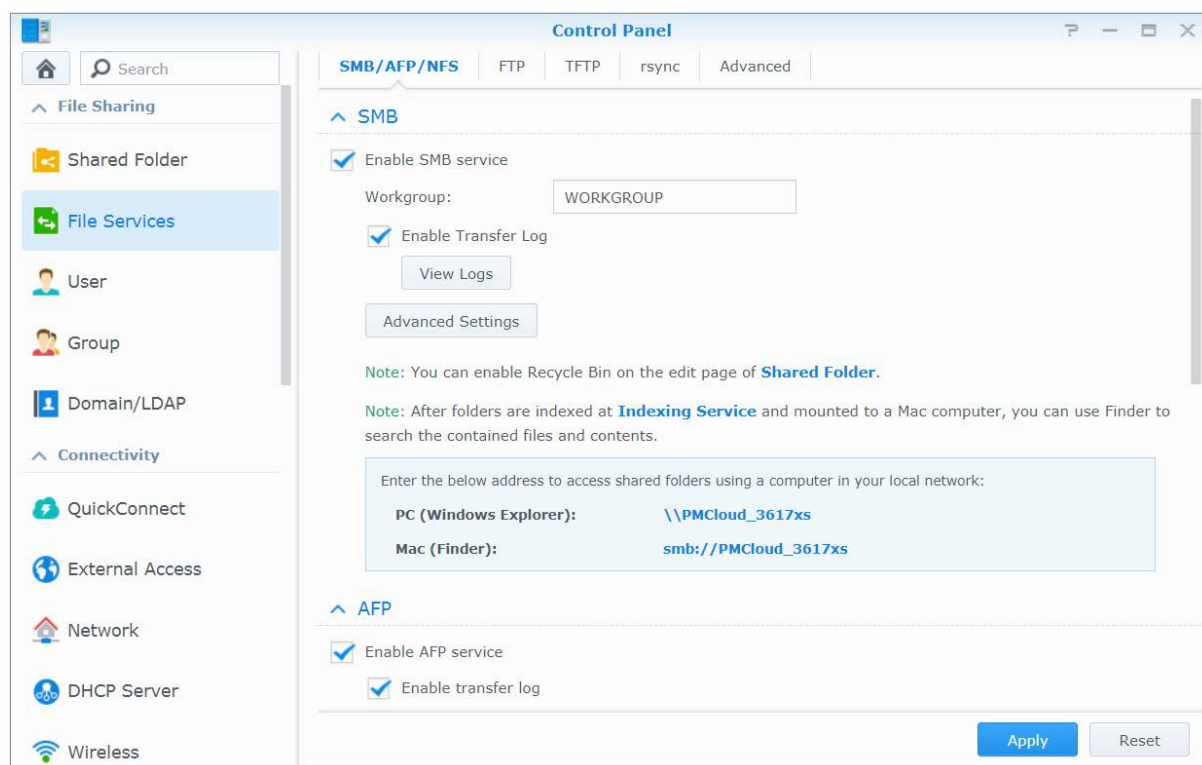
This chapter explains how to enable the support for file sharing protocols for all platforms, create and manage users and groups, set up shared folders, and allow or deny access to the shared folders, applications or subfolders from specific users or groups.

## Enable File Sharing Protocols for All Platforms

This section tells you how to allow the Synology NAS to support file sharing protocols for all platforms.

Synology NAS supports the following file sharing protocols:

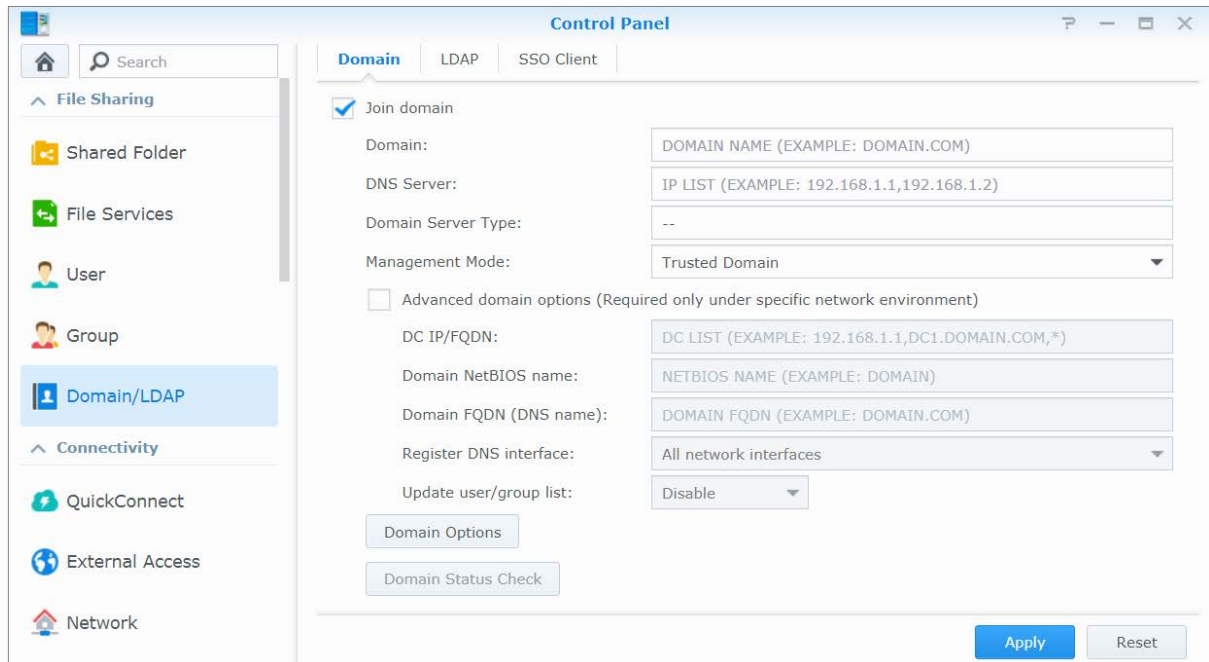
- **For Windows:** SMB/CIFS (My Network Places), FTP
- **For Mac:** SMB, FTP, AFP
- **For Linux:** SMB, FTP, NFS





## Join Synology NAS to Domain/LDAP

Go to **Control Panel** > **Domain/LDAP** to join your Synology NAS to a directory service as a Windows domain or LDAP client. When the Synology NAS is joined to a directory service, you can manage domain/LDAP users' access privileges to shared folders and DSM applications and enable their home service.



### Joining a Windows Domain

Click the **Domain** tab, and enter domain name and DNS server (optional) to join the Synology NAS to a Windows ADS domain. In the window that appears, enter the username and password for the administrator of the domain server.

After Synology NAS joins the domain, domain users can log in to Synology NAS with their domain account and password.

#### Note:

- If your domain username includes “%” and “\$”, you might not be able to access your home folder. Please ask your domain administrator to give you a new username.
- Domain groups **Domain Admins** and **Enterprise Admins** will be added to the local group **administrators** automatically. In other words, domain users in these groups have administrative right on the Synology NAS, including performing DSM/CIFS/FTP/AFP/WebDAV applications.
- You can also configure domain users' access privileges to the shared folders on Synology NAS. See "Allow Domain Users or Groups to Access Shared Folders" for more information.

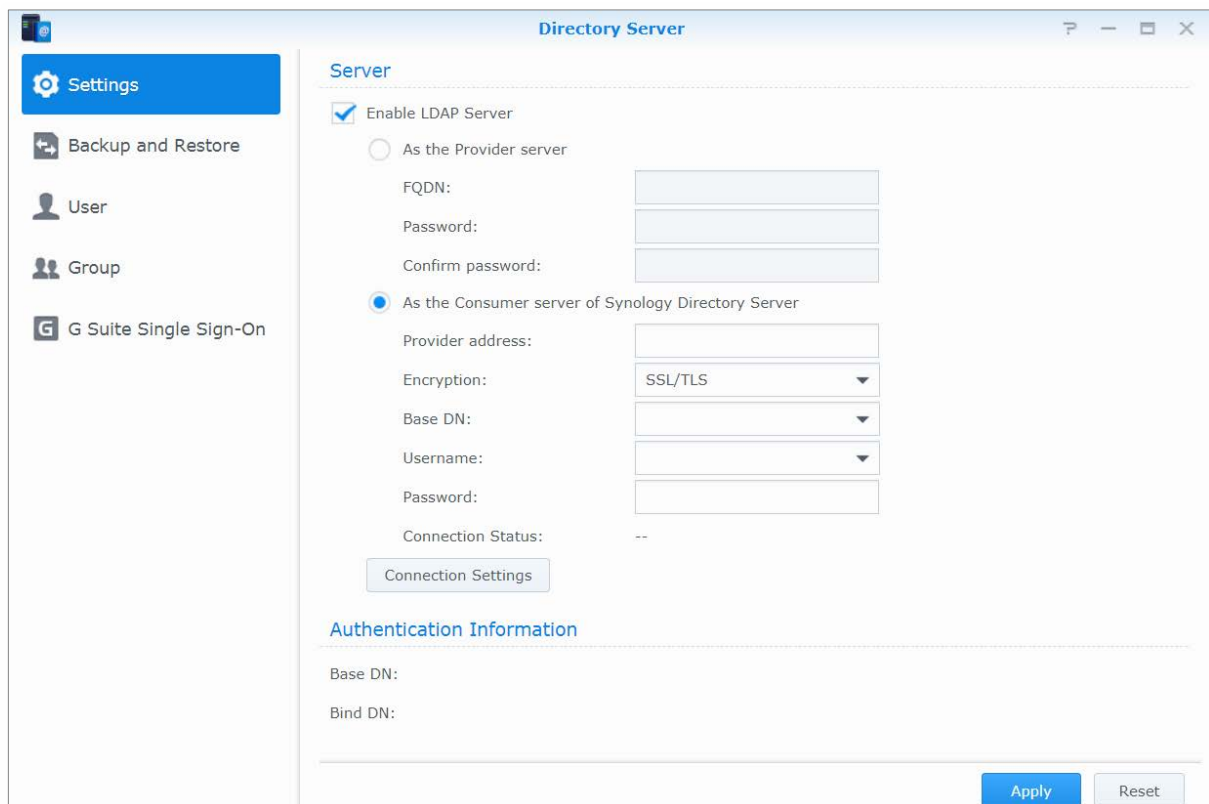
### Binding to an LDAP Server

LDAP allows your Synology NAS to join an existing directory service as an LDAP client, and then retrieve user or group information from an LDAP server (or "directory server"). The profiles option allows you to smoothly connect to different types of LDAP servers, such as standard (Synology Directory Servers or Mac Open Directory), IBM Lotus Domino servers, or customize your own profile settings. You can manage LDAP users' or groups' access privileges to DSM applications and shared folders, just as you would with DSM local users or groups.

## Host LDAP Service with Directory Server

Directory Server is an add-on package based on LDAP version 3 (RFC2251) that allows your Synology NAS to become an account administration center to centralize the account management of all connecting clients, and provides authentication service for them.

In addition, with **G Suite Single Sign-On** support, Directory Server can become an identity provider for your Google Apps domain. This allows users to log in to Google Apps services (such as Gmail or Google Calendar) using their accounts and passwords stored on Directory Server, eliminating the need for users to remember another set of accounts and passwords.



The screenshot shows the 'Directory Server' configuration window. On the left is a sidebar with navigation options: Settings (selected), Backup and Restore, User, Group, and G Suite Single Sign-On. The main area is titled 'Server' and contains the following settings:

- Enable LDAP Server
  - As the Provider server
    - FQDN: [text input]
    - Password: [password input]
    - Confirm password: [password input]
  - As the Consumer server of Synology Directory Server
    - Provider address: [text input]
    - Encryption: [dropdown menu, currently showing SSL/TLS]
    - Base DN: [dropdown menu]
    - Username: [dropdown menu]
    - Password: [password input]
    - Connection Status: --
- [button: Connection Settings]

Below the 'Server' section is the 'Authentication Information' section, which includes:

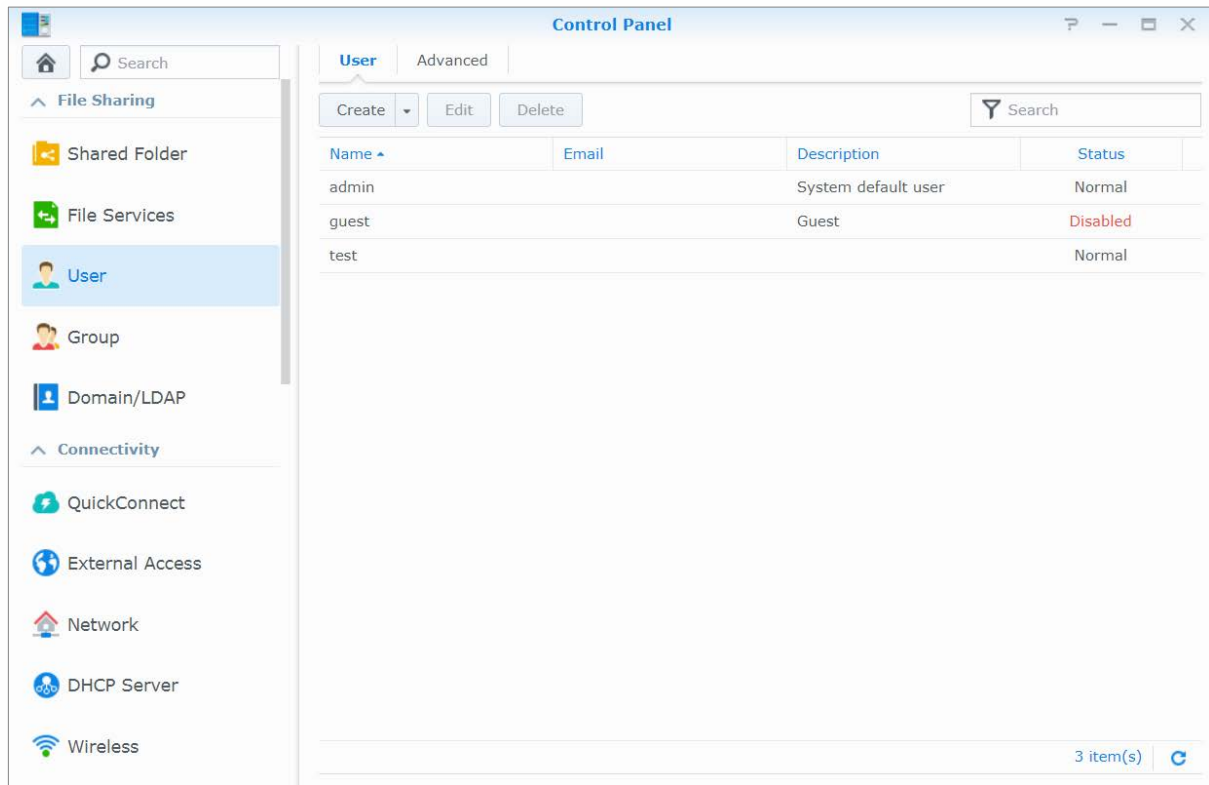
- Base DN: [text input]
- Bind DN: [text input]

At the bottom right of the window are two buttons: 'Apply' and 'Reset'.

To install Directory Server on your Synology NAS, go to **Package Center**. For more information about Directory Server, please refer to **DSM Help**. To learn more about how to access Directory Server with an LDAP client, please read this **tutorial**.

## Manage Users and Groups

Go to **Control Panel** > **User** or **Group** to create users or groups, and allow or deny their access to different shared folders.



### Create Users

Click **Create** to create a user account. The user can log in to edit his/her account info after the user account has been established. You can also choose to set an account expiration date or disallow the user to change account password.

### Allow Users to Reset Passwords via Email

You can allow non-administrator users to reset forgotten passwords via email. Click **Advanced** > **Password Settings** and tick the checkbox marked **Allow non-administrator users to reset forgotten passwords via email**. When this option is enabled, a link marked **Forgot your password?** will appear on the DSM login page. If a user forgets his password, he can click this link and enter his username. In this case, the system will send an email message to the user containing a link to reset his forgotten password.

For detailed instructions and notes, please see **DSM Help**.

### Apply Password Strength Rules

You can enable password strength service to make sure DSM users' passwords are secure enough to withstand malicious login attempts. Click **Password Settings** to configure this measure of the effectiveness of a password.

**Note:**

- Password Strength rules only work for passwords created or modified after the Password Strength service is enabled. Existing passwords won't be affected by the rules.
- The rules won't apply to the passwords of users created by importing user list.

## Create User's Home Folder

Each DSM user (except for guest) can have his/her own folder called the **home** folder, which is accessible only by the user and the system administrator. Click **User Home** to enable user home service.

For users belonging to the **administrators** group, DSM users' home folders are here: **homes/[Username]**

### Note:

- When the user home service is disabled, the **homes** folder will be kept but accessible by users belonging to the **administrators** group only. Users can access their home folders again if the user home service is enabled again.
- To delete the **homes** folder, the user home service must be disabled first.

## Create Domain/LDAP User's Home Folder

If you have joined your Synology NAS to a directory service as a Windows domain or LDAP client, you can go to **Control Panel > Domain/LDAP > Domain Users** or **LDAP Users** to create domain/LDAP users' home folders.

Click **User Home** and tick **Enable home service for domain users** or **Enable home service for LDAP users**.

Like local users, all domain/LDAP users can access their own home folder via CIFS, AFP, FTP, WebDAV, or File Station. Users belonging to the **administrators** group can access all personal folders located in the **homes** default shared folder. For users belonging to the **administrators** group, domain/LDAP users' home folders are in the folder named **@DH-domain name** (for domain users) or **@LH-FQDN name** (for LDAP users). The name of the user's home folder is the user account plus a unique number.

### Note:

- To delete the **homes** shared folder, user home service must be disabled first.
- Enabling domain/LDAP user home service will also enable the local user home service if it's not enabled yet.
- The domain user home service would be disabled if the local user home service is disabled.

## Create Groups

Go to **Control Panel > Group** to create and edit a group, add users to the group, and then edit the group's properties, saving you the trouble of editing users one by one.

**Groups created by default include the following:**

- **administrators:** Users belonging to the **administrators** group have the same administrative privilege as **admin**.
- **users:** All users belong to the **users** group.

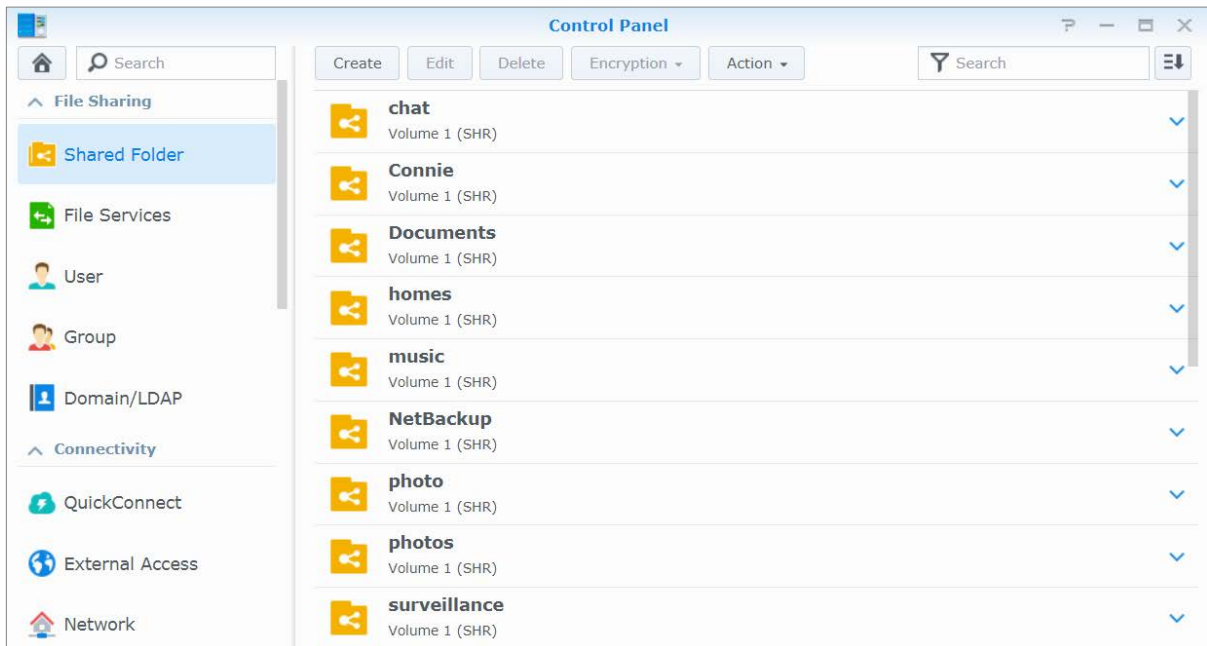
**Note:** For more information about editing a group's access privileges to shared folders or applications, see "Allow Users or Groups to Access Shared Folders" and "Allow Users to Access Applications" for more information.

## Allow Users to Access Applications

Go to **Control Panel > Group > Edit > Applications** to decide which applications could be accessed by a user.

## Set Up Shared Folders

Go to **Control Panel** > **Shared Folder** to manage the shared folders, which are the root folders of Synology NAS. You can store data in the shared folders and share them with users or groups with access privileges.



## Built-in Shared Folders Created by the System

System built-in shared folders are created when the services or applications requiring the folders are enabled.

Name	Description
Chat	The <b>Chat</b> folder contains attachments in the application, including uploaded files, URL thumbnails, and profile pictures. It will be created automatically when Chat is installed.
web	The <b>web</b> folder contains contents of your website. It will be created automatically when Web Station is enabled.
photo	The <b>photo</b> folder contains photos and videos you want to share on Photo Station. It will be created automatically when Photo Station or DLNA/UPnP Media Server is enabled.
music	The <b>music</b> folder contains music you want to share on Audio Station. It will be created automatically when Audio Station is enabled.
video	The <b>video</b> folder contains videos you want to browse through DLNA/UPnP DMA. It will be created automatically when Media Server is enabled.
surveillance	The <b>surveillance</b> folder contains Surveillance Station recordings. It will be created automatically when Surveillance Station is enabled.
home	The <b>home</b> folder provides a private space for each user to store data where only the user can access. It will be created automatically when User Home is enabled.
homes	The <b>homes</b> folder contains the home folders of all users. It will be created automatically when User Home is enabled. Only system administrator can access and manage all users' home folders.
NetBackup	The <b>NetBackup</b> folder is created automatically when Network Backup Service is enabled.
usbshare	The <b>usbshare[number]</b> folder is created automatically when you connect an USB drive to Synology NAS device's USB port.
esatashare	The <b>esatashare</b> folder is created automatically when you connect an eSATA drive to Synology NAS device's eSATA port.

### Create a Shared Folder

If you are a user belonging to the **administrators** group, you can click **Create** to create shared folders and assign access privileges to the folders.

### Remove a Shared Folder

If you are a user belonging to the **administrators** group, you can click **Delete** to remove any shared folder created by yourself.

**Important:** Removing any shared folder also removes all data within it. If you still need the data, back them up first.

## Encrypt a Shared Folder

When creating a shared folder, you can choose to encrypt it.<sup>1</sup> After a folder is encrypted, you can use the **Encryption** drop-down menu to mount/unmount the folder or export the encryption key.

The AES 256-bit encryption can block off all unauthorized access attempts. Without the encryption key, other people will not be able to use the encrypted data even if they remove the hard drives from your Synology NAS and mount it on their device.

By default, encrypted shared folders will be unmounted automatically on startup for security reasons. If you reset default passwords with the reset button located on the Synology NAS, encrypted shared folders will be unmounted, and the option to automatically mount will be disabled.

**Note:**

- It is recommended that you initialize a key store to manage encryption keys of multiple shared folders. To do so, go to **Control Panel > Shared Folder > Action > Key Manager**.
- Once you add the encryption key to Key Manager, you can allow an encrypted folder to mount automatically on startup. Tick the **Mount on Boot** checkbox in Key Manager.
- For the security of the Synology NAS, it is recommended that you choose a physical USB drive as the key store.

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<sup>1</sup> Shared folder encryption is supported on specific models only.

## Allow Users or Groups to Access Shared Folders

At **Control Panel > Shared Folder**, select a shared folder and click **Edit > Permissions** to allow or deny users' or groups' access to a shared folder.

## Allow Linux Clients to Access Shared Folders

At **Control Panel > Shared Folder**, select a shared folder and click **Edit > NFS Permissions** to assign NFS permissions to any shared folder, allowing Linux clients to access it.

## Allow Domain Users or Groups to Access Shared Folders

If you have joined your Synology NAS to a directory service as a Windows domain or LDAP client, you can go to **Control Panel > Shared Folder**, select a shared folder and click **Edit > Permissions** to set up and modify the shared folder privileges of a domain/LDAP user or group.

**Note:** In the event of privilege conflicts, the privilege priority will be: No access (NA) > Read/Write (RW) > Read only (RO).

## Define Windows ACL Privileges for Shared Folders

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Windows Access Control List (ACL) is a list of privileges or permissions that determine specific access rights under the Windows environment. This can help administrators define access control rules for an individual file or a directory, and grant different access rights to individual users or groups.

In DSM, the access permissions of shared folders are based on Windows ACL by default. Shared folders implement the permissions settings of Windows ACL, which also allows for customizing the permissions of individual files and subfolders. In addition, permissions can be customized via File Station or File Explorer in Windows.

Through Windows ACL, you can assign different privileges to local and domain users in the system. The privileges apply to all file-related applications, such as FTP, File Station, NFS, AFP, WebDAV, etc.

## Index Shared Folder Contents

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By indexing folders with the **Universal Search** package, you can perform deep search quickly by filename, file content, and metadata. For detailed instructions, please see **DSM Help**.

**Note:** See "Search for Files or Folders" for more information about searching files with File Station.



# Access Files from Anywhere

When you have set up users or groups with proper access privileges to the shared folders, they can share their files with your Synology NAS from anywhere.

This chapter explains the ways to access the Synology NAS shared folders within the local network or over the Internet. For more detailed instructions, please see [DSM Help](#).

## Access Files within the Local Network

This section explains how to allow users to use Windows, Mac, or Linux computer to access shared folders on Synology NAS within the local network.

**Note:** Before accessing, make sure the relative file sharing protocols have been enabled for your Synology NAS. See "Enable File Sharing Protocols for All Platforms" for more information.

### Access Shared Folders from Windows

To access shared folders from Windows, you can use any of the following methods.

#### Method 1: Use Synology Assistant to map shared folders as network drives.

Run Synology Assistant (available at Synology's [Download Center](#)) and select the server from the server list. Click **Map Drive** and follow the onscreen steps to finish the setup.

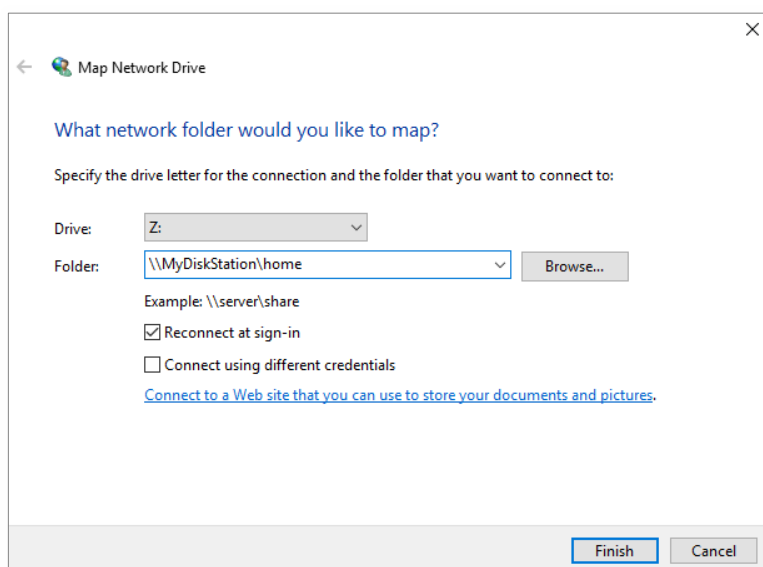
Upon completion, you can access the mapped shared folder directly in Windows Explorer.

#### Method 2: Use Windows Explorer.

Open a Windows Explorer window and go to **This PC**. Click **Map network drive** to show the **Map Network Drive** window. Choose a drive letter from the **Drive** drop-down menu. Locate the shared folder by doing either of the following:

- Enter **\\Synology\_Server\_Name\Shared\_Folder\_Name** in the **Folder** field.
- Click **Browse** to locate the shared folder, and then click **OK**.

Enter your username and password for Synology DiskStation Manager and click **OK**. Upon completion, you can access the mapped shared folder directly in Windows Explorer.

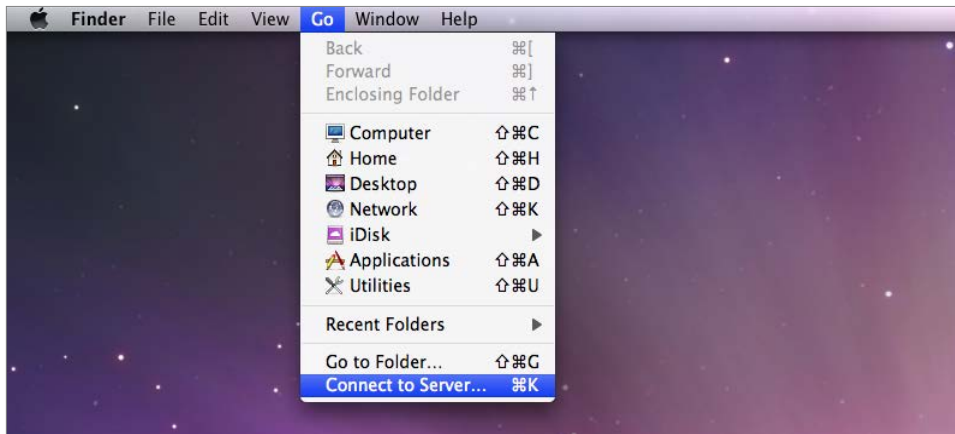


## Access Shared Folders from Mac

Choose **Go > Connect to Server** from the menu bar. Type the IP address or name (appended with **.local**) of the Synology NAS preceded by **smb://** or **afp://** in the **Server Address** field and click **Connect**. (e.g. **smb://EricaWang.local** or **afp://192.168.0.2**)

**Note:** For better performance, it is recommended that you connect to the shared folders via SMB.

Select the shared folder you want to access. Upon completion, you can access the shared folder in the Finder window.



## Access Shared Folders from Linux

In Synology DiskStation Manager, Go to **Main Menu > Control Panel > Shared Folder**. Select the shared folder you want to access, click **Edit > NFS Permissions**, and find the mount path at the bottom of the window that appears.

On a Linux computer, enter the mount path to mount the shared folder.

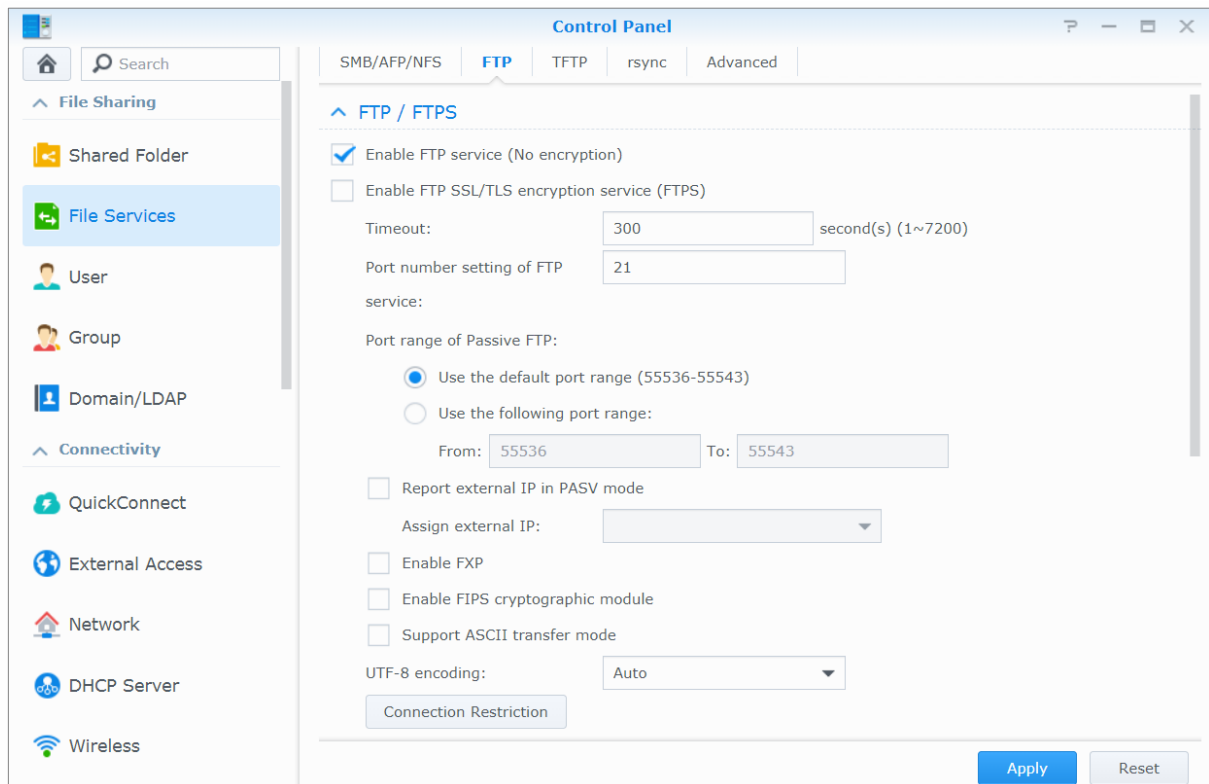
**Note:** For more information about NFS Privileges, see "Allow Users or Groups to Access Shared Folders".

## Access Files via FTP

If your Synology NAS is accessible over the Internet, you can use an FTP application to access the shared folders.

**Note:** For more information about making Synology NAS accessible over the Internet, see "Chapter 7: Access your Synology NAS from the Internet".

Go to **Control Panel > File Services > FTP** to enable FTP service, allowing users to upload or download Synology NAS data via FTP.



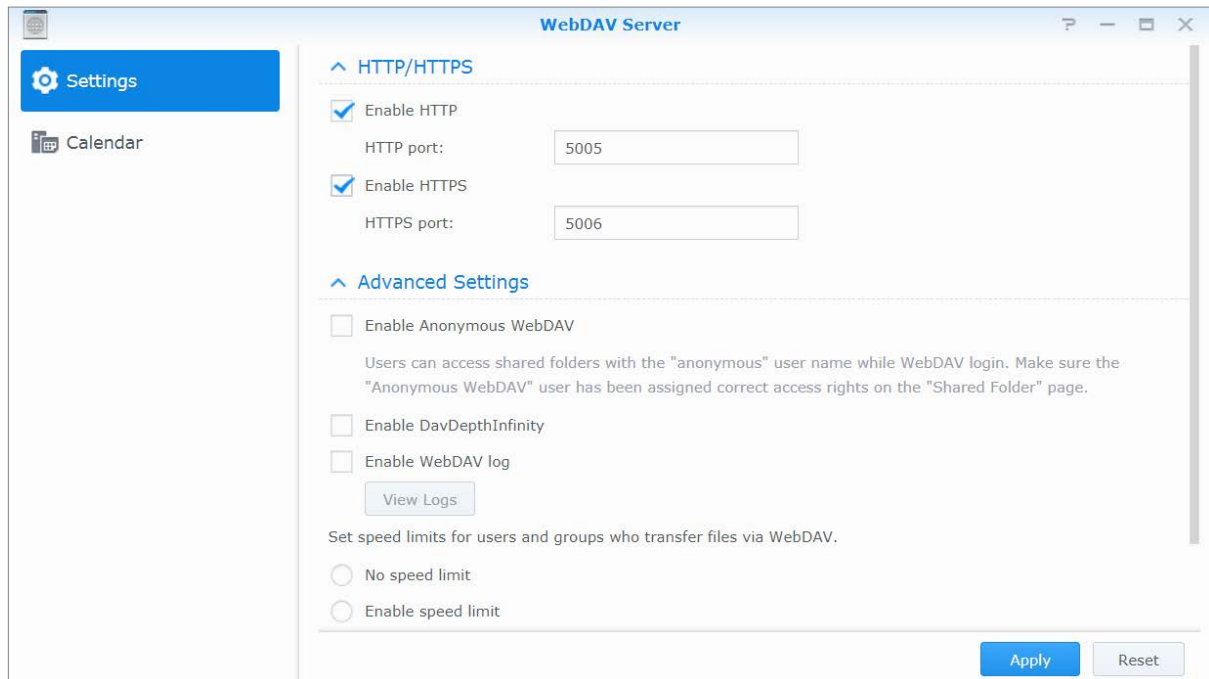
### Connect to Synology NAS Using an FTP Application

Open any FTP application on your computer and enter the following information to connect to Synology NAS:

- IP address or domain name of the Synology NAS
- Your user account and password
- The port number (The default number is 21)

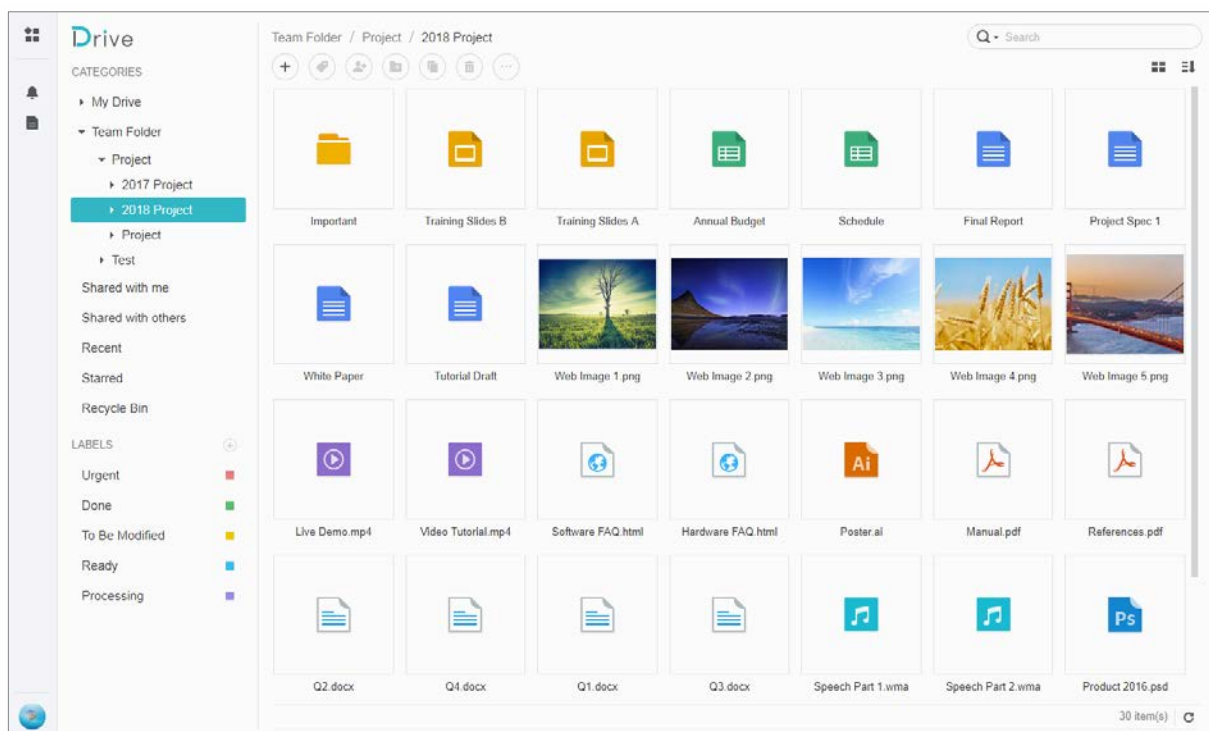
## Access Files via WebDAV

By enabling WebDAV or CalDAV, you can remotely manage and edit files or calendars stored on the Synology NAS. Go to **Package Center** to install the **WebDAV** package and to enable its services.



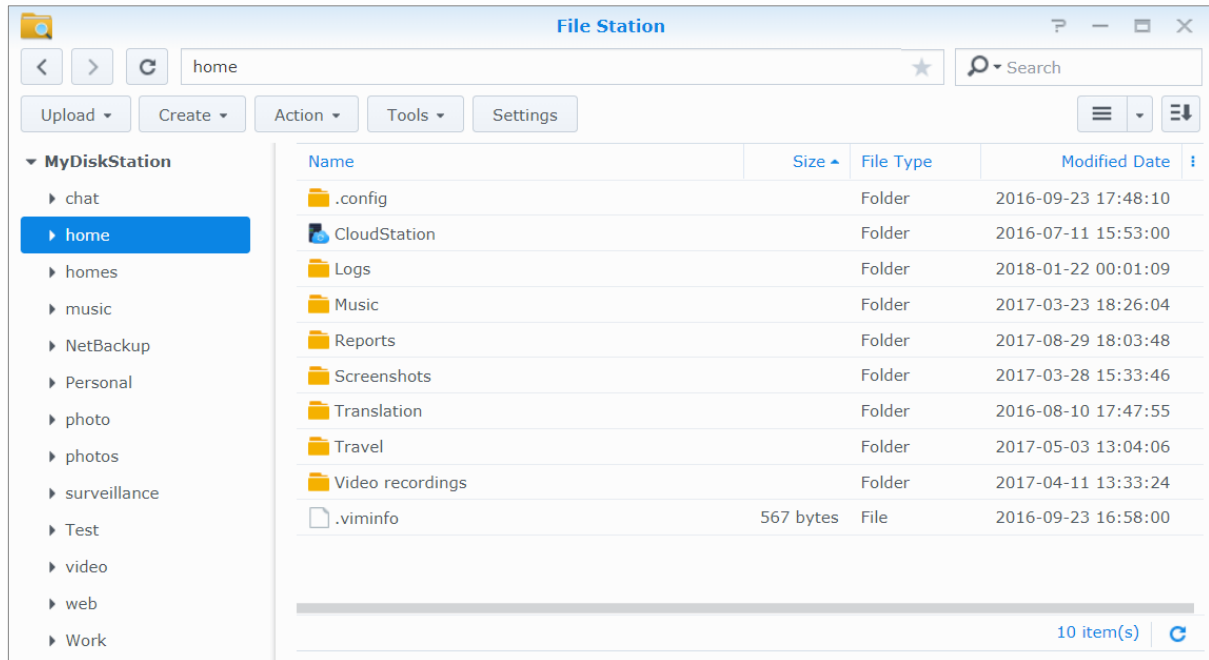
## Access and Synchronize Files via Synology Drive

Synology Drive provides a unified portal for all the files stored on your Synology NAS. You can access and synchronize these files via native client applications on a computer, mobile device, or another Synology NAS. Go to **Package Center** to install and run the **Synology Drive** package.



## Access Files via File Station

File Station is DSM's file management tool, allowing DSM users over the Internet to access the Synology NAS folders with their web browsers, or transfer files to another WebDAV/FTP server.<sup>1</sup> By launching two or more File Stations, you can manage all your Synology NAS data by dragging and dropping them between different File Stations.



### File Station Appearance

- **Left panel:** Displays shared folders and their subfolders in the upper part, and the folders on your local computer in the lower part.
- **Main section:** Displays contents of the currently selected folder.
- **Help button (top-right corner):** Click the **Help** button (with a question mark) to reveal the DSM Help, where you can get useful help about how to use File Station.
- **Search field:** Enter a keyword to filter through files or folders in the current folder.
- **Advanced Search (magnifying glass button):** Search for refined search results.

### Manage File Station Options

Click **Settings** to configure general settings, enable File Station log, mount remote folders or virtual drives, determine who can share file links, and set speed limit to control the bandwidth usage for DSM file transfer services.

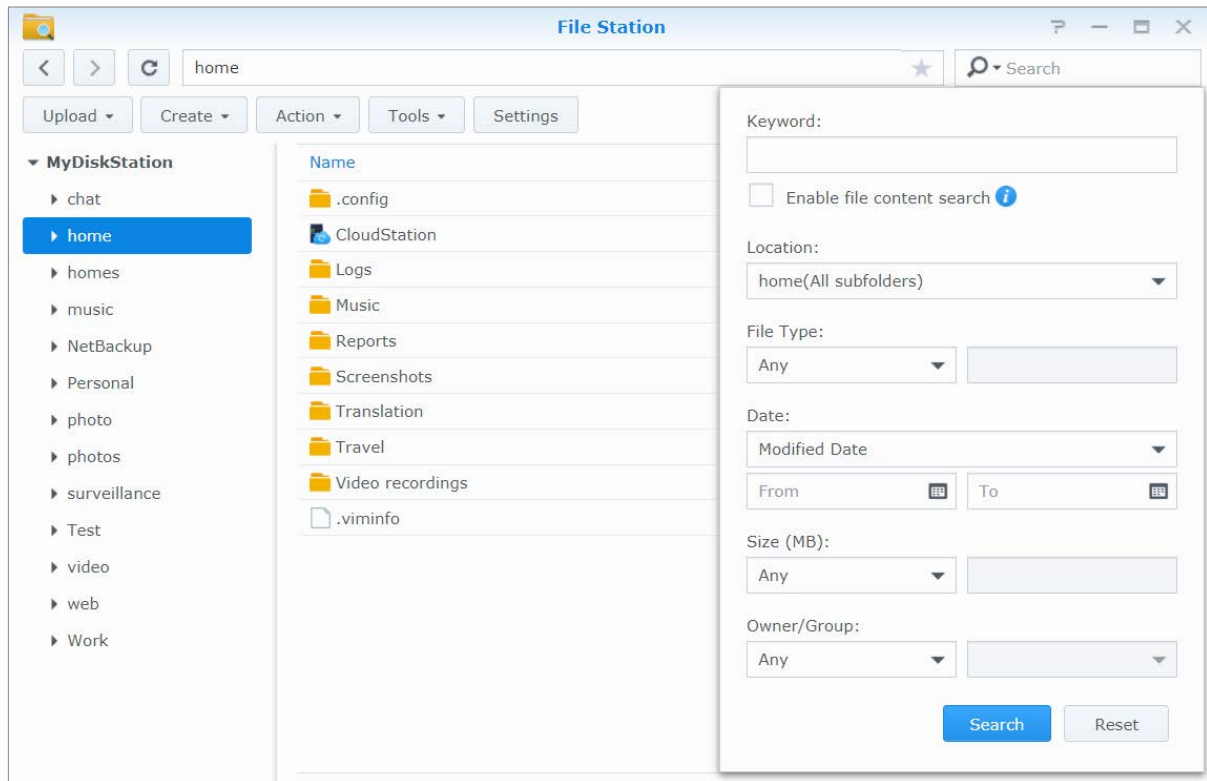
**Note:**

- For more information about remote folders or virtual drives, see "Mount Remote Folders or Virtual Drives".
- For more information about shared links, see "Share File Links".

<sup>1</sup> FTP, SFTP, WebDAV, and WebDAV over HTTPS are supported.

## Search for Files or Folders

You can type keywords in the **Search** field at the top-right corner of File Station to filter through files or folders in the current folder. Additionally, you can also perform advanced search in the **Advanced Search** panel for more refined search results.



**Note:** For quicker search result, it is recommended that you index shared folder contents. See "Index Shared Folder Contents" for more information.

## Set File Station in Action

With the **Action** menu, right-clicking, and dragging-and-dropping, you can easily download, upload, copy, move, rename, delete, extract, and compress files or folders, and more.

## Edit the Properties of Files and Subfolders

You can edit the access privileges to files and subfolders (meaning folders and their subfolders in a shared folder), copy download links, and open a file in a new browser window in the **Properties** window. Select the files and folders for which you want to set access privileges. Right-click one of the files or folders, or choose the **Action** menu, and then choose **Properties**.

**Note:**

- To set access privileges to shared folders, please see "Allow Users or Groups to Access Shared Folders" for more information.
- You are not allowed to edit the access privileges to files and subfolders in the **photo** shared folder here. To set access privileges to photo albums for Photo Station users, open Photo Station, go to the **Settings** page, and click the **Help** tab for more information.
- With File Station, you can only perform the upload action for files and folders on your computer. All the other action and property settings in File Station are available for files and folders on Synology NAS only.

## Share File Links

Files or folders stored on your Synology NAS can be shared quickly and easily. Simply right-click a file or folder and select **Share**. This generates a link and QR code, which can be sent to friends or other users. DSM users will

also receive notifications. Whether or not they possess a DSM account, they can follow the link to download the selected file or folder.

## Send Files as Email Attachments

You can directly send and share files as email attachments. Simply right-click selected files and then select **Send as email attachments**.

## Mount Remote Folders or Virtual Drives

File Station allows you to mount remote folders to access contents shared by network computers or other Synology NAS, or virtual drives to access contents within disc images. That way, you can easily navigate all available network resources or disc images with File Station. For more information about remote folders or virtual drives, click the **Help** button (with a question mark) at the top-right corner.

## Edit Music Information

With File Station's Music Information Editor, you can view or edit the information of music files. Simply right-click the music files and choose **Edit music information**.

## View Documents, Photos, or Videos

With File Station, you can view documents, videos or photos easily. For more information, click the **Help** button (with a question mark) at the top-right corner.

## Edit Photos

With File Station, you can edit photos with Aviary Editor, a web-based external photo editor. For more information, click the **Help** button (with a question mark) at the top-right corner.

# Back Up Data

Synology offers comprehensive backup solutions for your computer and Synology NAS, allowing you to back up data on your computer to Synology NAS. If you are a user belonging to the **administrators** group, you can also back up the Synology NAS data with local or network backup, or sync shared folder contents between Synology NAS. The creative Copy button simplifies external storage devices backup with One-touch design. The support for the Amazon S3 backup service and the innovative Time Backup package give you other choices for server backup.

This chapter explains how the various backup solutions of DSM can help protect your data. For more detailed instructions, please see [DSM Help](#).

## Back Up Computer Data

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Synology-designed Cloud Station Backup allows you to back up data from a Windows, Mac, or Linux computer to your Synology NAS. If you are using a Mac or Linux, you can also use Time Machine or rsync to back up data to your Synology NAS.

### Use Cloud Station Backup for Windows, Mac, and Linux

The Synology Cloud Station Backup application can be installed from [Download Center](#) on Synology's website. For more detailed instructions, please see this [tutorial](#).

### Use Time Machine for Mac

Synology NAS provides compatibility for backup with Apple's Time Machine, allowing Mac users to back up their data to a shared folder on the Synology NAS. For more detailed instructions, please see this [tutorial](#).

**Note:** For more information about using Time Machine, see the help on your Mac computer.

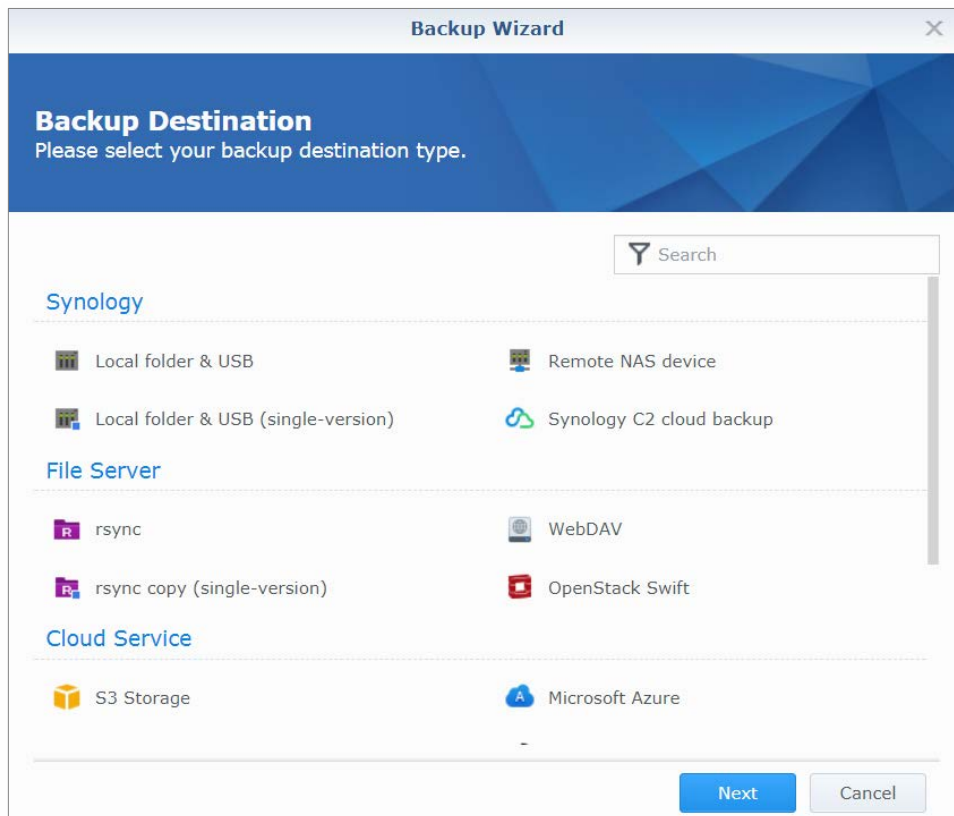
### Use rsync for Linux

You can use rsync to back up Linux data to the Synology NAS.



## Back Up Data or iSCSI LUN on Synology NAS

With **Hyper Backup**, users belonging to the **administrators** group can perform backup tasks, restore files, and sync shared folders from one Synology NAS to various types of destinations based on their needs. For more detailed instructions, please see **DSM Help**.



## Back Up and Restore System Configurations

Go to **Control Panel > Update & Restore > Configuration Backup** to back up and restore the system configurations of your Synology NAS. You can back up system configurations to a configuration file (.dss) and then restore the configurations at a later time.

## Sync Shared Folder Contents between Synology NAS

Shared Folder Sync allows you to sync shared folder contents from a source Synology NAS (or "client") to a destination Synology NAS (or "server") over the network. Shared Folder Sync backup tasks can be viewed and managed by going to **Control Panel > Shared Folder Sync**. For detailed instructions regarding how to enable Shared Folder Sync, please see **DSM Help**.

## Back Up Data on USB Device or SD Card

You can go to **Control Panel > External Devices** to specify a shared folder for use with USBCopy or SDCopy, and then use the **Copy** button on the front panel of your Synology NAS to copy data from a USB device or SD card to the shared folder.<sup>1</sup>

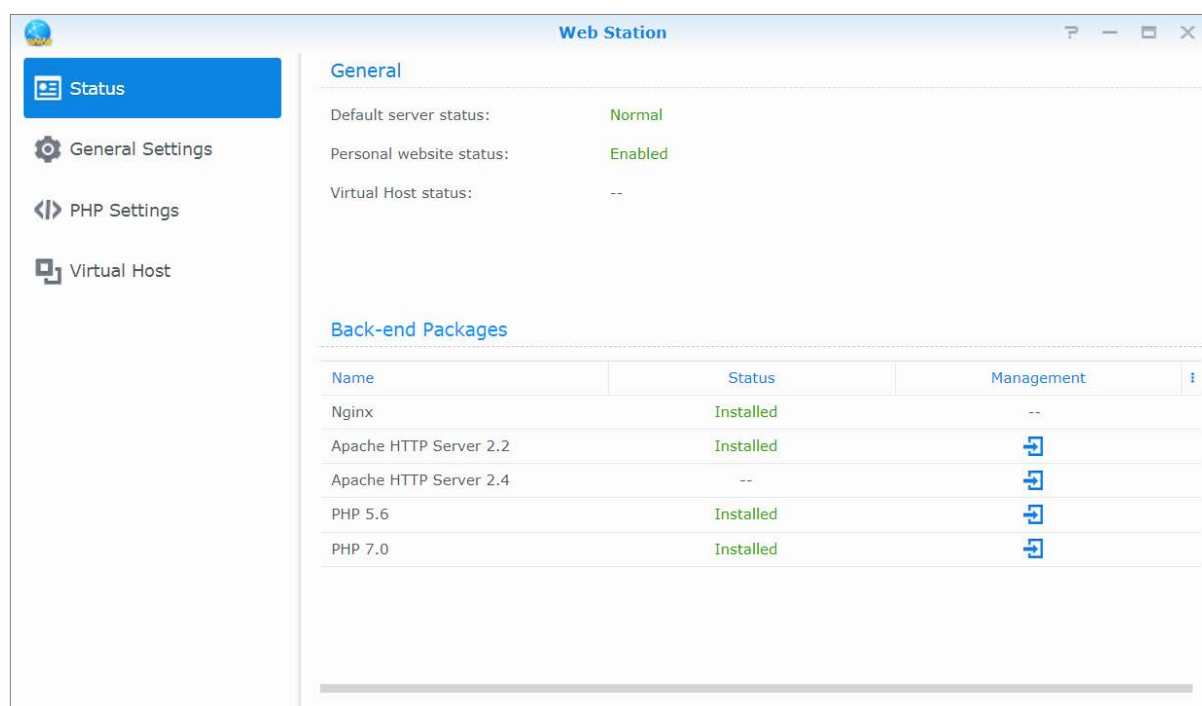
<sup>1</sup> USBCopy and SDCopy are supported on specific models only. Visit [www.synology.com](http://www.synology.com) for more information.

# Host Websites and Print Server

Synology NAS is designed for small and medium businesses (SMB), providing the ability to set up web and print servers on a single Synology NAS without spending extra money. This chapter provides basic information regarding these features. For more detailed instructions, please see [DSM Help](#).

## Use Web Station to Host Websites

Go to [Package Center](#) to install the [Web Station](#) package to set up your website, which is integrated with support for PHP and MySQL. For detailed instructions, please see [DSM Help](#).



### Enable Web Station

With Web Station, you can create a website with web pages on the Synology NAS. With built-in PHP and MySQL support, you can create dynamic, database-driven website for your business. There is also a variety of 3rd party packages, such as Content Management, Customer Relationship Management, and e-Commerce system in Package Center, so that you can install them with a few clicks. The default shared folder **web** will store the web page files for your website.

### Enable Virtual Host to Host Websites

You can host multiple websites on a single server with the virtual host feature. Each website can have different port numbers or even different hostnames.

### Enable Personal Website

The personal website function is a convenient way to allow Synology NAS users to host their own personal websites. Each local user, domain user, and LDAP user will have a unique website address.

## Modify HTTP Service Options

In addition to the default port number 80, you can add another port for the use of Photo Station and Web Station. For more detailed instructions, please see [DSM Help](#).

## Manage PHP Settings

After you have enabled Web Station, you can click the [PHP Settings](#) tab to configure PHP related settings. For more detailed instructions, please see [DSM Help](#).

### More Information

#### Install Featured Applications

- After you have finished setting up your web environment, you can install applications to enhance the features of your website using many of the free Open Source applications.

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## Set Synology NAS as Print Server

Go to [Control Panel](#) > [External Devices](#) > [Printer](#) to set the Synology NAS as a print server over your local area network, allowing client computers or mobile devices to access printers connected to the Synology NAS. The Synology NAS can connect to USB printers or network printers. In addition, AirPrint support allows you to print from an iOS device, and Google Cloud Print support allows you to print using Google products and services.<sup>1</sup> For more detailed instructions, please see [DSM Help](#).

### Set up Computer to Access Print Server

After the print server is set up on your Synology NAS, Windows, Mac, and Linux clients within the local area network can connect to the print server and access its print/fax/scan service.

### Access Print Server with iOS Devices

If you have enabled DSM's AirPrint support, any iOS devices running on iOS 4.2 or later can print to the printer connected to your Synology NAS.<sup>1</sup>

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<sup>1</sup> For recommended peripheral models, including hard drive, USB printer, DMA, and UPS, please visit [www.synology.com](http://www.synology.com).

# Discover Various Applications with Package Center

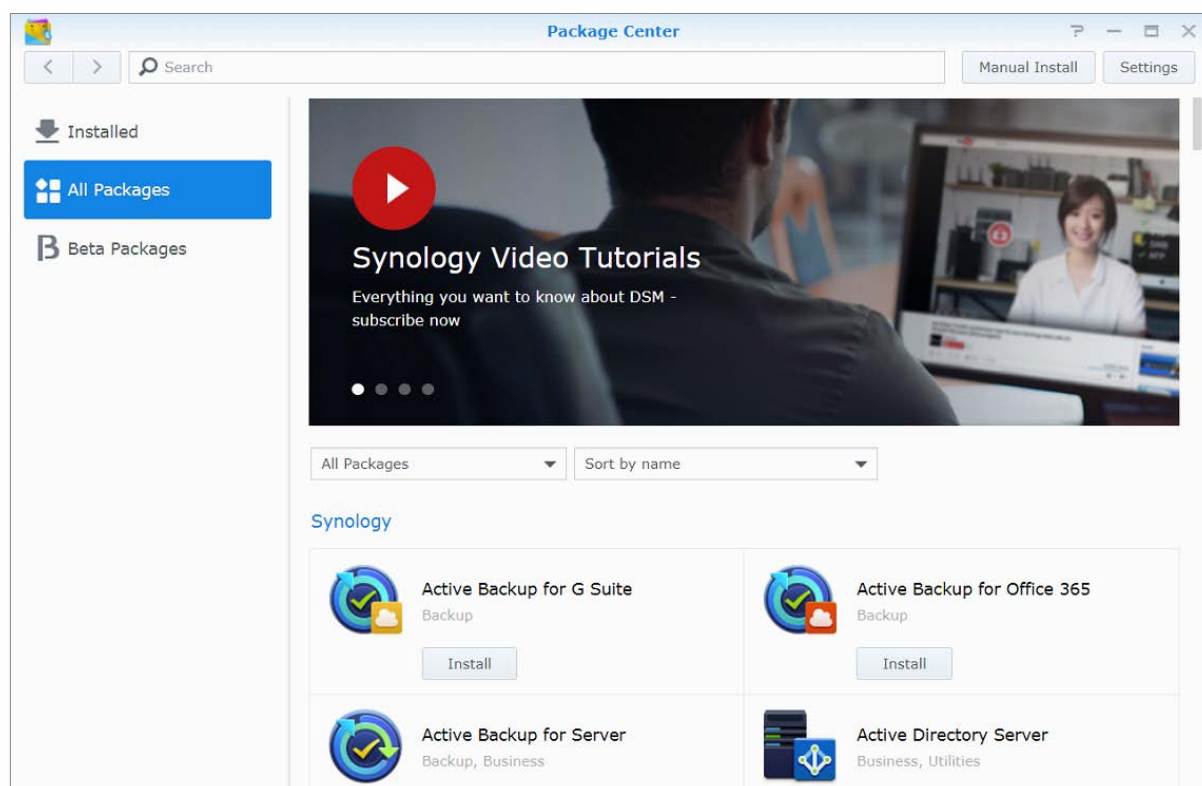
Synology has integrated third party or Synology-designed applications into packages that can be installed on Synology NAS and managed with Package Center.

Coming with full-featured applications, Synology NAS provides you with a variety of privileges to enjoy multimedia contents, share photos, videos, and blogs, access files anytime and anywhere, monitor live actions from cameras, live stream and record digital TV programs, search and download files from the Internet, back up precious data, and build your own cloud. You can also set your own desired Trust Level to protect yourself from installing packages published by unknown sources on your Synology NAS.

This chapter introduces packages available at Package Center and how to install packages. For more detailed instructions, please see [DSM Help](#).

## What Package Center Offers

Go to [Package Center](#) to find out what Package Center has to offer.



### Audio Station

Audio Station is a web-based audio application, allowing you to access the music library on your Synology NAS, choose available audio sources on the local area network, and add your favorite music to playlists for playback.

### Central Management System

Synology CMS (Central Management System) allows you to efficiently and conveniently manage multiple Synology NAS servers. It provides a single interface to monitor the status of multiple servers, create policies for batch editing the settings of server groups, and keep each server in your fleet up-to-date and running smoothly.

## Chat

Chat is an instant messaging service running on Synology NAS that allows you to send and receive important messages anytime via a web page, the desktop application, or the mobile app, helping your business create a safe and private instant conversation environment with ease.

## Cloud Station ShareSync

When Cloud Station ShareSync is paired with Drive, together they can provide you a file sharing service that allows you to synchronize files between multiple Synology NAS devices. Before syncing files with client devices, Drive is required to be installed on the host server, while Cloud Station ShareSync has to be installed on each client Synology NAS device you want to sync with.

## Cloud Sync

Cloud Sync allows you to seamlessly synchronize and share files among your Synology NAS and multiple public cloud services, such as Dropbox, Baidu Cloud, Google Drive, Box, OneDrive and hubiC. Its Selective Sync feature also allows you to filter the files or select the folders you want to sync to the public cloud service to ensure you have only the files you need on the public cloud service or vice versa.

## Drive

Drive provides a unified portal for all the files that are stored on Synology NAS. Via client software, you can seamlessly synchronize files between computer, mobile device and another Synology NAS. Furthermore, Drive allows you to access to Synology Office and other regular files to share and manage your files.

## DNS Server

DNS (Domain Name System) is a naming system that facilitates the exchange of data between computers over the Internet and other networks. Its main function is to translate user-friendly domain names (e.g. www.synology.com) into corresponding fixed, public IP addresses (e.g. 120.89.71.100). This function allows users to easily find web pages, computers, or other devices over the Internet or local network.

## Download Station

Download Station is a web-based download application which allows you to download files from the Internet through BT, FTP, HTTP, NZB, Thunder, FlashGet, QQDL, eMule, and Xunlei-Lixian, and subscribe to RSS feeds to keep you updated on the hottest or latest BT. The Auto Extract service automatically unzips files downloaded to Synology NAS.

## Moments

Synology Moments allows you to organize photos and videos stored in Synology Drive. It makes photo sorting and tagging fast and easy with its facial and object recognition features. In addition, date and location information of your photos is marked in a timeline, keeping a detailed track of the special moments captured in your everyday life.

## Note Station

Note Station helps you fully enjoy writing, viewing, managing, and sharing content-rich notes. It is very easy to create content with rich text editing, media embedding, attachments, and much more. In addition, with Synology Web Clipper, you can quickly and easily clip web content and access it via Note Station.

## Photo Station

Photo Station is an online photo album specifically designed for professional photographers to easily share photos and videos as well as collect feedback over the Internet. With Photo Station, you can upload, organize, edit, and share your photos in quick, easy steps.

## Office

Office is a web-based application that allows you to create working documents, spreadsheets, and slides easily and efficiently with professional editing tools. Office synchronizes and saves files instantly to ensure data security as team members collaborate to enhance productivity.

## Surveillance Station

Surveillance Station is a professional Network Video Recording (NVR) software bundled with DiskStation Manager (DSM), allowing you to remotely record and monitor video footages from IP cameras which are paired with your Synology NAS.

## Video Station

Video Station is an ideal video organizer for you to collect your favorite movies, TV shows, home videos, and TV recordings, allowing you to watch videos on your computer, mobile devices, a big screen like Apple TV or mainstream smart TVs, and DLNA/UPnP-compliant DMAs.

## Install or Buy Packages

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Click **Install**, **Try** or **Buy**, and follow the onscreen instructions to install packages. You can also click **Manual Install** and follow the wizard to install packages by uploading **.spk** files (available at Synology's **Download Center** or third party websites).

# Communicate with Mobile Devices

As Internet access grows popular on mobile devices, Synology provides you with several creative alternatives to communicate with your Synology NAS using iOS/Android, Windows Phone, or other mobile devices.

## Manage DSM Settings with DSM mobile

DSM mobile allows DSM users belonging to the **administrators** group to manage DSM settings and check DSM information with the web browser of an iOS (iPhone, iPad or iPod touch), Android device, or Windows Phone.

### To log in to DSM mobile:

- 1 Use the web browser of your iOS/Android device or Windows Phone to connect to **http://Synology\_Server\_IP:5000**.
- 2 Enter your DSM user credentials and tap **Login**.

**Note:** For more information about DSM mobile, please see this [tutorial](#).

## Use iOS, Android, and Windows Phone Apps

The Synology mobile apps are now available on Apple's App Store, Android Market, and Windows Marketplace, allowing you to communicate with Synology NAS wherever Wi-Fi access is available. You can manage files, music, photos, videos, even the surveillance videos on your NAS, sync folders between your mobile devices and NAS, download files, and watch videos on the go.

### Chat

The Chat mobile app allows you to reply to urgent messages and share information with team members anytime, increasing communication efficiency. All the messages are stored on the Synology NAS with the Chat package installed, providing a safe, private space to have conversations.

**Note:** Chat is currently not supported on Windows Phone.

### Drive

Drive allows you to easily access and manage your files on Synology NAS regardless of your location. You can open regular files, images, videos, music, spreadsheets, slides and other documents on Synology Office with web browser. Besides, Drive features allow you to search, share, move the files and apply labels on the files to enhance users' task efficiency anytime and anywhere.

**Note:** Drive is currently not supported on Windows Phone.

### DS audio

DS audio allows you to access Audio Station with an iOS/Android device or Windows Phone and listen to your favorite high-quality music on the go. Besides, the remote controller feature allows you to stream music playback when there is an audio output device connected to the USB port of your Synology NAS, such as a USB speaker or high-quality stereos.

### DS cam

DS cam allows users who own an iOS/Android device to live view their IP cameras, take snapshots, and view recorded events from your Surveillance Station whenever a network connection is available.

## DS cloud

DS cloud is the mobile counterpart to Synology's Cloud Station Server and allows you to easily sync folders between an iOS/Android device and Synology NAS.

## DS file

DS file allows you to access and manage files on your Synology NAS with an iOS/Android device or Windows Phone.

## DS finder

DS finder allows you to monitor or email the status of your Synology NAS, and request it to perform wake on LAN (WOL), restart, shut down, or play beep sounds (to help you quickly find the its location) with an iOS/Android device or Windows Phone.

## DS get

DS get allows you to access Download Station and download files directly with an iOS/Android device or Windows Phone. You can create download tasks by adding a URL, via a built-in mini browser of the application, or the integrated Safari browser for user convenience. Managing basic settings such as transfer speed limits or activating the advanced schedule is also possible.

## DS note

DS note is the mobile counterpart to Synology's Note Station web application, which allows you to easily sync your notes between your iOS/Android device and Synology NAS.

## DS photo

DS photo allows you to access Photo Station with an iOS/Android device or Windows Phone and share your precious moments on the go. Download and save photos from Photo Station to your mobile device so you can enjoy the flashbacks anytime anywhere. You can also use DS photo to upload snapshots or videos from your camera phone straight to Photo Station. Besides, you and your friends can interact by leaving comments on any photos, adding more fun to your photo sharing experiences.

## DS video

DS video allows you to access Video Station and watch videos both at home on your Apple TV and on the move with an iOS/Android device. You can browse and organize your collections of videos and continue your watching experience from where you stopped across different devices.

## Moments

Synology Moments allows you to back up the photos and videos taken with your iOS/Android device to Synology Drive. All the photos are displayed in chronological order and are smartly organized into albums by topics, keeping a detailed track of the special moments captured in everyday life.

**Note:** For more information about these mobile apps, please refer to their built-in Help.

## Use Other Mobile Devices

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If you have a mobile device running on Windows Mobile 6.0 (with Internet Explorer Mobile or Opera 9.0 or later), Symbian OS 9.1 (with S60 3rd Edition or later), or iPhone OS 2.3.1 or later, you can use the device to log in to Synology NAS to view photos with Mobile Photo Station and read supported file formats with Mobile File Station around the world where Internet access is available.



# Troubleshooting

For any questions about managing your DSM, go to **DSM Help** or click the **Help** button (with a question mark) at the top-right corner of every window. For any questions other than that, please visit the Synology Knowledge Base website at [help.synology.com](https://help.synology.com) for further assistance.