



# **Synology Router User's Guide**

Based on SRM 1.2

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# Set up Your Synology Router

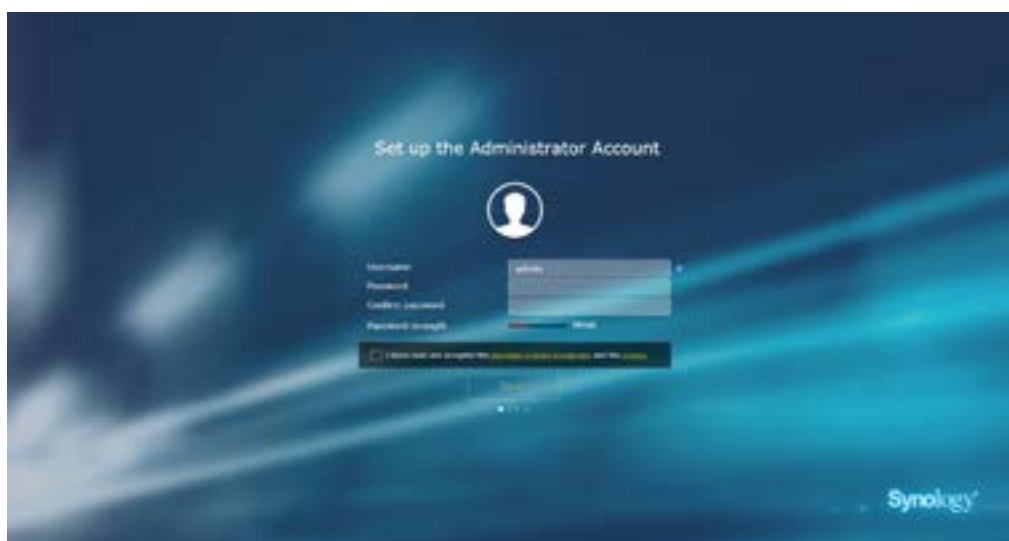
## Set up Synology Router Manager (SRM)

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- 1 Use a computer or wireless device connected to the Synology Router's local network. If you use a wireless device, scan and join the Wi-Fi network (SSID: **SynologyRouter**; Password: **synology**).
- 2 Open a web browser, and enter either URL into the address bar:
  - <http://router.synology.com>
  - <http://192.168.1.1:8000>
- 3 Once connected, click **Start** to launch the SRM Setup Wizard.



- 4 Fill in the information to set up the administrator account. Click **Next** to continue.



5 Fill in the information to set up the Wi-Fi network. Click **Next** to continue.



6 Set up the operation mode. When choosing the **Wireless Router** mode, you can also enable **External access to SRM** so that only external access via the HTTP(S) port (e.g. 8000/8001) can reach SRM.



7 Choose an Internet connection type:

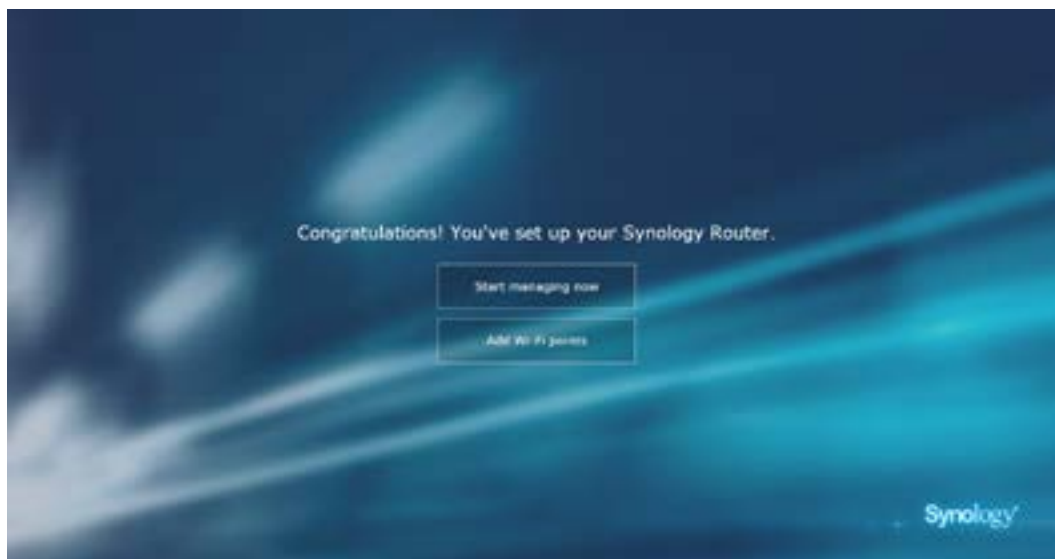
- **PPPoE:** Choose this option if you have obtained PPPoE credentials from the ISP.
- **Manual IP:** Choose this option if you have obtained an available IP address for use.
- **Auto IP:** Choose this option if you rely on an ISP modem for automatic IP assignment.
- **DS-Lite:** Choose this option if you have obtained a DS-Lite service request from the ISP.



8 The wizard will continue to set up your Synology Router, and it may take up to three minutes to complete the setup.



- 9 After the setup is complete, click **Start managing now** to enjoy SRM and its various features, or add Wi-Fi points by clicking **Add Wi-Fi points**.



**Note:**

1. Above is a general demonstration of the SRM setup steps. The steps and available options may somewhat vary depending on your device type (e.g. PC or wireless device), access type (LAN, WAN, or Wireless LAN), and chosen operation mode (Wireless Router or Wireless AP).
2. If the setup is completed with a wireless device, remember to download DS router for anywhere management of your Synology Router. To know more about this mobile application, see "DS router".

## Set up Desktop Wallpaper

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SRM allows you to customize the desktop with default wallpapers or with your own images. You can also customize other desktop elements (e.g. text color and icon size).

Click **Options** (the person icon) on the top-right corner, and go to **Options > Desktop**:

- To change the desktop wallpaper: Select **Customize wallpaper** and click **Select image**. Click **Default Wallpaper** or **My Images** depending on the image source.
- To customize other desktop elements: Change relevant settings to suit your needs.

## Reset Synology Router

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If you forgot the administrator/Wi-Fi password or the Synology Router becomes unreachable, you can fix the situations by pressing the RESET button on the bottom shell.

- 1 Use a pencil or ball pen to press and hold the RESET button.
- 2 Press and hold the RESET button for four or ten seconds:
  - **For four seconds (Soft Reset):** The system will reset passwords of the **admin** and the administrator with equal privileges but other users' credentials will remain unchanged. The system will also reset the following settings (firewall, DHCP services, Wi-Fi, and Traffic Control) and start the SRM Setup Wizard.

**Note:** On the MR2200ac model, only the **admin** password will be reset.

**Note:** During Soft Reset, the LED indicators behave as below:

1. The STATUS LED turns **static** orange on the RT1900ac model, **blinking** orange on the RT2600ac, and **static** blue on the MR2200ac model. The other LEDs become inactive for up to 30 seconds until the reset is complete.
2. The STATUS LED turns green (Soft Reset is complete) on the RT1900ac and RT2600ac model, **blinking** blue on the MR2200ac model, and the other LEDs become active and behave as stated in the respective Hardware Installation Guide.

- **For ten seconds (Hard Reset):** The system will be reset to the factory default. The data stored in the external storages will remain intact.

**Note:** During Hard Reset, the LED indicators behave as below:

1. The STATUS LED turns **blinking** orange on the RT1900ac model, **static** orange on the RT2600ac, and **static** blue on the MR2200ac model. The other LEDs become inactive for up to four minutes until the reset is complete.
2. The STATUS LED turns green (Hard Reset is complete), on the RT1900ac and RT2600ac model, **blinking** blue on the MR2200ac, and the other LEDs become active and behave as stated in the respective Hardware Installation Guide.



# Choose the Operation Mode

This chapter introduces the wireless operation modes available to your Synology Router to suit your networking needs. To find the operation modes, please go to **Network Center > Operation Modes**.

## Wireless Router

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Under this mode, your Synology Router works as a regular router that transfers data between two networks (e.g. between a local network and the Internet) and finds the optimal path for data delivery. This mode also provides wireless connection to wireless devices for continuous access.

The Wireless Router mode is recommended in the scenarios below:

- When you need extra connection security (e.g. firewall, NAT, and DMZ)
- When the connected client devices need wireless connection
- When you need to create subnets within the local network

Below are the suggested usages:

### If you have an ISP modem:

- 1 Connect your Synology Router (at the WAN port) with a network cable to the ISP modem (at the LAN port).
- 2 Configure basic network settings:
  - Decide how your Synology Router obtains the IP address (at **Network Center > Internet > Connection > Primary Interface > Connection Type**).
  - Decide whether your Synology Router assigns IP addresses to its clients (at **Network Center > Local Network > General > DHCP Server**).
- 3 Configure advanced network settings (at **Network Center > Internet** or **Local Network**). For setting details, refer to the SRM help.

### If you do not have an ISP modem:

- 1 Connect your Synology Router (at the WAN port) to the Internet (e.g. the Internet port on the wall/ground) with a network cable.
- 2 Decide how your Synology Router obtains the IP address (at **Network Center > Internet > Connection > Primary Interface > Connection Type**).
- 3 Configure advanced network settings (at **Network Center > Internet**). For setting details, refer to the SRM help.

## Wireless AP (Access Point)

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Under this mode (also known as the Bridge mode), your Synology Router bridges all network interfaces (LAN, wireless LAN, and WAN) and therefore all LAN ports (including the WAN port) are available to wired clients.

As a wireless AP, the router cannot assign IP addresses to the clients (the **DHCP Server** is disabled) and works only as a wireless transmission device, sending/receiving data via Wi-Fi between wireless and wired networks.

The Wireless AP (Access Point) mode is recommended in the scenarios below:

- When your Synology Router (at LAN ports or WAN port) is already connected to an ISP modem (at the LAN port) for Internet access
- When the connected devices need wireless connection

**Note:** Under this mode, the Synology Router will not provide the following functions/settings under **Network Center: Port Forwarding, Local Network, and Traffic Control**.

## Wireless Client

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Under this mode, your Synology Router works as a Wi-Fi dongle (that is, a Wi-Fi client) and relies on the Wi-Fi signal from another router or access point for Internet access.

The Wireless Client mode is recommended in the scenario below:

- When you need Internet access, but a wired connection is hard to set up between your Synology Router and another router/ISP modem

Below is the suggested usage:

- Clients have to connect to the Synology Router (at the LAN port) with a network cable for Internet access.

**Note:**

1. This operation mode is available to the RT1900ac model.
2. Under this mode, your Synology Router must be within the range of the Wi-Fi source (e.g. a Wi-Fi router). If not, the received Wi-Fi signal may be weak and affect the connection quality.
3. Wireless client devices cannot connect to the Synology Router to access the Internet.

## Wireless Repeater (WDS)

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Under this mode (also known as the WDS mode), your Synology Router bridges all network interfaces (LAN, wireless LAN, and WAN) and therefore has five LAN ports (LAN 1-4 and WAN) available to wired clients.

As a wireless repeater, the router can neither assign IP addresses to the clients (the **DHCP Server** is disabled) nor send/receive data via Wi-Fi between wireless and wired networks.

Wireless AP (Access Point) is recommended in the scenarios below:

- When you wish to connect to an ISP modem but do not want to use wire connection for Internet access
- When the connected devices need wireless connection

**Note:**

1. This operation mode is available to the RT2600ac model.
2. Under this mode, your Synology Router must be within the range of the Wi-Fi source. A poor signal from the Wi-Fi source may result in unstable or poor connection quality.

# Set up Your Wi-Fi Connection

This chapter introduces how to create Wi-Fi networks hosted by your Synology Router. Three types of Wi-Fi networks can be created: 2.4GHz, 5GHz (5GHz-1 on Tri-band), and 5GHz-2.

- **2.4GHz:** A 2.4GHz Wi-Fi network is used by most wireless devices and tends to have broader signal coverage than a 5GHz Wi-Fi network. However, signal interference is likely to occur because most wireless devices rely on this wireless frequency for connection.
- **5GHz (5GHz-1 on Tri-band):** Many wireless devices do not rely on this wireless frequency, and signal interference is less likely to occur. Besides, a 5GHz Wi-Fi network has narrower signal coverage than a 2.4GHz Wi-Fi network, and its signal strength may weaken due to nearby obstacles.
- **5GHz-2:** Tri-band models will show this radio option.

## Enable Smart Connect

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**Smart Connect** allows you to connect your devices to the combined SSID with the shared Wi-Fi settings for both 2.4GHz and 5GHz bands. SRM will determine whether to switch between the two frequency bands (i.e. 2.4GHz and 5GHz) according to your specified policy and network conditions to ensure the best wireless connectivity for your devices. Smart Connect does not switch between channels (e.g. 1 and 10) within each band for your devices.

- 1 Go to **Wi-Fi Connect > Wireless > Wi-Fi**.
- 2 Turn on **2.4GHz/5GHz auto selection**.
- 3 Specify the settings for the Smart Connect Wi-Fi network. Click **Advanced options** to make more adjustments.
- 4 Use your wireless device to scan and join the Wi-Fi network hosted by your Synology Router.

## Create Wi-Fi Networks (2.4GHz & 5GHz)

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You can create a 2.4GHz or 5GHz Wi-Fi network:

- 1 Make sure your Synology Router is powered on and well-connected to the Internet.
- 2 Make sure the Wi-Fi button is "ON" on your Synology Router.
- 3 Go to **Wi-Fi Connect > Wireless > Wi-Fi**.
- 4 Select **Enable wireless radio** under 5GHz/2.4GHz, and continue the setup. Click **Advanced options** to make more adjustments.
- 5 Use your wireless device to scan and join the Wi-Fi network hosted by your Synology Router.

## Create Guest Wi-Fi Networks (2.4GHz & 5GHz)

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A guest Wi-Fi network is typically time-limited network (from one hour to one week) created by small and medium-sized businesses for visitors/non-regular users. The visitors can only access the guest network but not the host Wi-Fi network, to prevent unauthorized access to the host network.

To set up a guest Wi-Fi network, go to **Wi-Fi Connect > Guest Network** for the setup.

## Create WPS Networks (2.4GHz & 5GHz)

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WPS (Wi-Fi Protected Setup) is a standard promoted by the Wi-Fi Alliance to simplify Wi-Fi security settings for users. Though the setup is quick, the WPS network may not be secure. To keep the WPS network safe, you can use a push button or a PIN code.

Three ways are available to quickly set up a Wi-Fi network via WPS:

### By push button:

- 1 Go to **Wi-Fi Connect > Wireless > WPS**, and select **Enable WPS**. Alternatively, press the WPS button on your Synology Router.
- 2 Enable the WPS function on your wireless device. Your wireless device and the Synology Router will be paired up.

### By AP PIN code:

- 1 Go to **Wi-Fi Connect > Wireless > WPS > Device PIN > By AP PIN code**, and click **Enable** to generate an AP PIN code.
- 2 Enter the generated PIN code into your wireless device. Your wireless device and the Synology Router will be paired up.

### By client PIN code:

- 1 Enter the PIN code of your wireless device at **Wi-Fi Connect > Wireless > WPS > Device PIN > By client PIN code**.
- 2 Click **Register**. Your wireless device and the Synology Router will be paired up.

**Note:** Client iOS devices cannot join a WPS network because iOS does not support WPS.

# Build a Wi-Fi system network

This chapter introduces various features to manage Wi-Fi points.

## Add Wi-Fi Points

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You can add new Wi-Fi Points to your Synology Wi-Fi Network to build a Wi-Fi system with complete coverage.

To set up a Wi-Fi point:

- 1 Place the Wi-Fi Point at a suitable location.
- 2 Go to **Wi-Fi Connect > Wi-Fi point**, and click **Add** to connect your new Wi-Fi Point to your Synology Wi-Fi system. SRM will detect all your new devices, apply settings, and upgrade the Wi-Fi Points to the latest version.

**Note:** Wi-Fi Points might fail to connect to the Primary Wi-Fi Point if the Primary Wi-Fi Point is reset to default. Please reset all Wi-Fi Points and follow the instruction of the Add Wizard to build your Wi-Fi system.

## Network Status

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To monitor the real-time status of all Wi-Fi Points in your Synology Wi-Fi System, go to **Wi-Fi Connect > Status**.

## Configure Wi-Fi Points

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At **Wi-Fi Connect > Wi-Fi Point**, you can find the status of your Wi-Fi system network by Topology. All your devices and their connection types are listed in this page — a solid line means the Wi-Fi Point is connected by an Ethernet cable, and a dotted line means it is connected via Wi-Fi. The devices can be configured to suit your needs:

- **Detail:** Name your Wi-Fi Points for easy recognition. You can find the general information, network status, and the connected list from the pop-up window.
- **Manage:** You can change the status of all Wi-Fi points.
  - **Turn off LED:** Turn off the LED of this Wi-Fi Point.
  - **Blink to find:** Find this Wi-Fi Point with the blinking LED.
  - **Restart now:** Reboot this Wi-Fi Point.
  - **Delete & Reset:** Remove this Wi-Fi Point from the Wi-Fi network and reset it to default for adding.

## Test Wi-Fi Performance

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The performance between Wi-Fi Points are crucial as the Wi-Fi Network is designed to keep the connection stable and with the best speeds. With the Wi-Fi Performance test, you can make sure your Wi-Fi Points are at the best location to provide the best network experience.

To use the Performance test service, go to **Wi-Fi Connect > Wi-Fi Point**, and click **Wi-Fi point performance test**.

# Manage Client Devices

This chapter introduces various features to manage client devices.

## Monitor Device Status

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To monitor the real-time status of all client devices under your Synology Router, go to **Network Center > Status > Device List**.

## Apply Traffic Control

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At **Network Center > Traffic Control**, you can regulate client devices' individual network bandwidth. Several control mechanisms are offered to suit your needs:

- **Beamforming:** Beamforming enhances the Wi-Fi signal for client devices with poor signal strength.
- **Banned:** The banned devices can only access resource in the same local network.
- **Custom Speed:** You can specify the upper and lower limits of upload/download traffic for client devices.
- **High Priority:** Devices set to High Priority will have prioritized network bandwidth allocation.

For finer management, you can also regulate network usage of specific applications (e.g. SSL or YouTube) running on certain devices.

**Note:**

1. The beamforming option is available to the RT1900ac model only.
2. The RT2600ac model performs beamforming by default and thus does not provide relevant options.
3. To enhance Wi-Fi signal for client devices, make sure the devices have an 802.11ac profile to support beamforming.
4. Beamforming can be applied to up to six client devices at once, and High Priority can be applied to three devices at most.

You can monitor the network usage history by device and by application. To access the usage log, go to **Network Center > Traffic Control > Monitor**. You can identify the source of usage anomalies, such as malicious software/websites, or identify users that misuse network resource.

You can generate a reader-friendly traffic report that records the Synology Router's network traffic statistics over a certain period of time. You may define automated traffic report generation that can be sent to a defined email address. To set up the report task, go to **Network Center > Traffic Control > Report**.

## Apply Wake-On-LAN

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With Wake-On-LAN (WOL), you can remotely wake up the wired devices from shutdown. The devices joined to the WOL service can be waken up via the MAC addresses or the connection list.

If you have a Synology NAS (e.g. DiskStation or RackStation) joined to the Synology Router's local network, you can simply wake it up with the QuickConnect ID, without using its MAC address or the connection list.

To use the WOL-related service, go to **Network Tools > Wake on LAN**.

**Note:**

1. Please make sure the target device supports WOL.
2. Under different operation modes, your Synology Router has a varied range of devices that can be joined to the WOL service.

# Enhance Connection Security

This chapter introduces various security features to protect your Synology Router and the client devices from potential cyber threats and unwanted information leakage.

## Secure Your Connections

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SRM can secure the Internet connection in the following ways.

### HTTP and HTTPS

HTTP is the unsecured, common protocol for web browsers to communicate with web servers. As the secured version of HTTP, HTTPS protects your Synology Router and client devices from cyber threats and unauthorized access.

By default, SRM provides HTTP and HTTPS connections. You may change the HTTP/HTTPS ports to avoid malicious attacks.

To change the HTTP/HTTPS ports, go to **Control Panel > System > SRM Settings**.

To access SRM via HTTP(S) connection, add the HTTP(S) port after the IP address:

- Synology\_Router\_IP\_Address:8001 (8001 is the default HTTPS port.)  
Example: 192.168.1.1:8001

### HTTPS-related Measures

At **Control Panel > System > SRM Settings**, two other HTTPS-related measures are available:

- **Automatically redirect HTTP connections to HTTPS:** All the Internet connections via HTTP will be switched to HTTPS to access SRM.
- **Enable HSTS:** Only web browsers using HTTPS connection can access SRM, while HTTP-using browsers are denied access.

### DoS Protection

DoS (Denial of Service) attacks bombard a computer system with numerous requests exceeding the target's capability. The attacked computer may miss important data/service requests (e.g. email messages) from outside, and suffer from limited Internet bandwidth and system resource.

To enable DoS protection, go to **Network Center > Security > General**.

### Pass-through

When a Pass-through service exists behind your Synology Router, you can allow specific types of VPN client traffic (PPTP, L2TP, SIP, and IPSec) for pass-through to reach the server. This feature helps prevent potential cyber threats from sneaking into the server via specific protocols.

To enable the pass-through function, go to **Network Center > Security > General**.

## Create Firewall Rules

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Firewall rules filter external IPv4 and IPv6 access to your Synology Router based on the specified conditions (e.g. ports and source IP addresses). With firewall rules, you can fine-tune security policies for better care of your Synology Router.

To create firewall rules on general traffic, go to **Network Center > Security > Firewall**.

To modify Internet access policies on SRM services/packages, go to **Network Center > Security > Service**.

**Note:** Firewall rules can apply to traffic from WAN to LAN or from WAN to SRM.

## External Access Restriction

This function allows external access to SRM via the HTTP/HTTPS ports (e.g. 8000/8001). External access via other ports will be denied.

To enable this function, go to **Control Panel > System > SRM Settings** and select **Allow external access to SRM**.

**Note:** For security reasons, if you enable this option and disable it later, your Synology Router will deny all external access even via the HTTP/HTTPS ports.

## Enforce Auto Block

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Auto block automatically blocks certain IP addresses with too many failed login attempts. Such IP addresses will be identified as a source of potential malicious attacks that try to find out the password.

To enable auto block, go to **Network Center > Security > Auto Block**.

## Create Certificates

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Creating a certificate from your Synology Router is equal to issuing a certified ID. If you import the certificate (a .crt file) to another device (e.g. your mobile phone), your Synology Router can identify and communicate with the device via a secured connection (e.g. HTTPS or SSL).

You can also import a certificate from a certificate authority so that your Synology Router can access another server.

To create or manage the certificate, go to **Control Panel > Services > Certificate**.

## Use More Security Measures

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More security measures are available to fine-tune SRM security policies at **Network Center > Security > General**. There you can set up a logout timer, help your browser skip IP checking, and do much more.

You are also recommended to use **Security Advisor**, an SRM security application that scans your SRM settings and Synology Router. Security Advisor will check your settings and recommend changes that help keep your Synology Router safe.



# Update and Restore Your Synology Router

This chapter introduces how to update SRM and its packages and how to back up/restore SRM.

## Update SRM and Packages

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Synology periodically releases free SRM updates and package updates to fix reported issues, enhance system and package performance, and offer whole new features.

### SRM

You can manually update SRM if you have obtained a .pat update file. The system will display the current SRM version and check if a newer SRM update is available.

To update SRM and modify update preferences, go to **Control Panel > System > Update & Restore**.

**Note:** You cannot downgrade SRM using a version older than the current version running on your Synology Router.

### Packages

At **Package Center**, the system will display packages that have any updates for download. With an .spk update file, you can manually update packages.

To update packages and tailor-make the update settings, go to **Package Center**.

**Note:** You cannot downgrade packages using a version older than the current version running on your Synology Router.

## Back up and Restore SRM

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By backing up and restoring SRM, you can preserve important settings for future use. We suggest you regularly back up SRM configurations and store the configuration file (.dss) on your Synology NAS or local computer.

At **Control Panel > System > Update & Restore**, you can back up current SRM configurations or restore previous configurations by importing the .dss file here.

**Note:** If you click **Restore factory default settings**, all user data stored on the external storages will be erased and the entire system will be restored to default settings. Please refer to **SRM Help** for more information.

## Register Synology Account

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Synology Account is a service-integrated platform that allows you to register and manage the personal account. With your personal Synology Account, you can enjoy various services from Synology, and subscribe to Synology eNews to know about important software updates and promotional events in your local area.

To register/access your Synology Account, go to **Control Panel > System > Synology Account**, or go to [Synology's official website](#).

# Manage Internet Connection

This chapter introduces various features for easy and safe access to the Internet.

## Internet Connection Types

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At **Network Center > Internet > Connection > Primary Interface**, you can choose how to connect your Synology Router to the Internet:

- **Auto**: Choose this option if you rely on an ISP modem for automatic IP assignment.
- **PPPoE**: Choose this option if you have obtained PPPoE credentials from the ISP.
- **Manual**: Choose this option if you have obtained an available IP address for use.
- **DS-Lite**: Choose this option if you have obtained a DS-Lite service request from the ISP.

You can enable the secondary interface to operate in the failover or load-balancing mode. Go to **Network Center > Internet > Connection > Secondary Interface (LAN 1)** to enable this interface.

## ISP/VPN/IPv6 Settings

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You can manage the following three Internet-related settings of your Synology Router.

### ISP Settings

This function allows you configure MAC clone and extra DHCP options (12/60/61) to suit the needs of the ISPs for successful registration. To do so, go to **Network Center > Internet > Connection > Primary Interface > ISP settings**.

### VPN Settings

A VPN (Virtual Private Network) helps you securely access resources on your private network from the Internet. SRM currently supports L2TP/IPSec, openVPN, and PPTP.

To use your Synology Router as a VPN client, go to **Network Center > Internet > Connection > Primary Interface > VPN settings** to modify the settings.

**Note:** Synology Router can only connect to OpenVPN servers which support tun-style tunnels on Layer 3.

### IPv6 Settings

To set up IPv6 on your Synology Router, please go to **Network Center > Internet > Connection > Primary Interface > IPv6 setup**. The supported IPv6 types include manual, 6in4, 6to4, 6rd, DHCPv6-PD, IPv6 Relay (Pass-through) and FLET's IPv6.

## Smart WAN

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At **Network Center > Internet > Smart WAN**, you can configure network access plans for two defined outward-facing internet interfaces (e.g. PPPoE, WAN, VPN, and 3G/4G LTE). You can choose either mode to determine their roles in network connectivity:

- **Failover**: When one of the interfaces is down, the other will be responsible for all the network connectivity to ensure stable connection at all times.
- **Load Balancing + Failover**: When both interfaces are well-functioning, this mode allows you to distribute network traffic to the interfaces for optimal network traffic flow; when one of the interfaces is down, the other will be responsible for all the network connectivity to ensure stable connection at all times.

Smart WAN also allows you to regulate network traffic by setting up policy routes for specific devices. Such devices will be able to access the Internet and receive Internet traffic only through the defined interface.

## QuickConnect & DDNS

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At **Network Center** > **Internet** > **QuickConnect & DDNS**, you can enable the services below for easy connection to your Synology Router.

### QuickConnect

QuickConnect is a connection technology developed by Synology that helps you effortlessly access your Synology Router from everywhere, only with your personal QuickConnect ID.

Enter the URL as below in a web browser to access your Synology Router via QuickConnect:

- quickconnect.to/QuickConnect\_ID (Example: quickconnect.to/synologist)

For more information about the QuickConnect service, refer to this [white paper](#).

### DDNS

DDNS (Dynamic Domain Name Service) matches the hostname and the IP address of your Synology Router for quick access. If you do not have a hostname, register one from Synology or other DDNS providers. To find your Synology Router with its DDNS hostname (e.g. john.synology.me), please enter the registered hostname in the web browser.

### DMZ

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A DMZ (as a “demilitarized zone”) is part of the network directly exposed to the Internet or other external untrusted networks. All external access will be directed to the host device in the DMZ. The DMZ host can directly connect to the Internet and is free from firewall limitations and protection. It is useful to set up servers as the DMZ host.

To enable DMZ, go to **Network Center** > **Port Forwarding** > **DMZ** for the setup.

**Note:** To connect to a host in the DMZ from an external network, you need the host’s external IP address retrieved by your Synology Router.

## Port Forwarding

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Port forwarding redirects data flow between different ports and has the following advantages:

- It can improve performance for applications which might otherwise rely on a relay service.
- It protects the ports for services/client devices from direct exposure to cyber threats.
- It can offer open ports to resolve port conflicts between multiple services/client devices

To set up port forwarding rules, go to **Network Center** > **Port Forwarding** > **Port Forwarding**.

## Port Triggering

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Port triggering requires you to set up one static port (the outgoing/trigger port) and one dynamic port (the incoming port) for a service/device in the local network for data transmission. Once the data come out to an external host through the trigger port, the incoming port is then triggered and opened to receive data from the host. If no data come out, the incoming port turns off, shutting down a possible opening for malicious attacks.

To set up port triggering rules, go to **Network Center** > **Port Forwarding** > **Port Triggering**.

# Manage Local Network Connection

The chapter introduces various features to efficiently manage the local network.

## Set up an IPv6 Router

By default, your Synology Router works as an IPv4 router assigning IPv4 addresses to client devices. It can also become a mixed IPv4/IPv6 router to assign IPv6 addresses.

To set up your Synology Router as an IPv6 router, go to **Network Center > Local Network > IPv6**.

**Note:** Only IPv6-supported devices can receive IPv6 addresses assigned by your Synology Router.

## Set up DHCP Services

As a DHCP (Dynamic Host Configuration Protocol) server, your Synology Router can assign dynamic IP addresses to DHCP clients (i.e. network devices) within your local network.

To find a list of DHCP clients and their network configurations (e.g. MAC and IP addresses), go to **Network Center > Local Network > DHCP Clients**.

To reserve the assigned IP addresses for the clients, go to **Network Center > Local Network > DHCP Reservation**.

**Note:** Your Synology Router can assign both IPv4 and IPv6 IP addresses. To assign IPv6 IP addresses to DHCP clients, please enable the IPv6 function at **Network Center > Internet > Connection > Primary Interface > IPv6 setup** first.

## Set up Static Routes

A static route is a routing path manually configured to pass data to a specific destination service/device. The static route does not automatically change with the network configuration, and its routing information is not exchanged between other routers.

Setting up static routes can benefit you in the following scenarios:

- When the network (e.g. a home local network) is small and may not grow fast into a complex network
- When you do not wish to share routing information (e.g. IP addresses and network configuration) with other routers for security reasons

To set up static routes, go to **Network Center > Local Network > Static Route**.

**Note:**

1. We advise you not to use static routes when the network is large and complex, because maintaining static routes in this environment can be time-consuming.
2. You can set up IPv6 static routes after enabling the IPv6 function on your Synology Router.

## Set up IPTV & VoIP

The IPTV & VoIP services allow you to connect an STB (set-top box) or VoIP phone to your Synology Router for multimedia services from the ISP or for phone communication. Before using the services, you need to have the VLAN ID provided by the ISP for the setup.

To set up the IPTV & VoIP services, go to **Network Center > Local Network > IPTV & VoIP**.

# Manage External Devices and Privileges

## Install & Manage USB/SD Storage

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With a USB/SD storage, your Synology Router can turn into a storage device for personal data and multimedia files.

To install external USB/SD storage to your Synology Router, please attach the storage to the corresponding slot.

At **Control Panel > Storage > Storage**, you can find out the total available external storage (e.g. USB drives & SD cards) on your Synology Router. There you can also format and manage the storage to suit your needs.

**Note:**

1. Please refer to the [compatibility list](#) for approved USB/SD storage.
2. Some system services and packages may create temporary files on USB/SD storage devices. To safely eject the USB/SD storage for system stability and prevent accidental data loss, press the Eject button on your Synology Router or eject the storage at **Control Panel > Storage > Storage**.

## Define User/Folder Privileges

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After external storage is established on your Synology Router, you can create shared folders for public use (e.g. “**public**”) and home folders for individual users.

To create shared folders, go to **Control Panel > Storage > Shared Folder**. There you can also set users’ access privileges to the folder.

To create users, go to **Control Panel > User > User**. There you can also set the user’s access privilege to shared folders.

## Install & Manage Network Printers

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Your Synology Router can become a printer server, allowing you to print out documents such as photos and articles over the network. You can also set up Google Cloud Print to print out needed documents from everywhere.

To install a network printer, please attach it to the USB slot.

To manage a network printer connected to your Synology Router, go to **Control Panel > Device > Printer**.

**Note:** Please refer to the [compatibility list](#) for approved network printers.

## Install & Manage 3G/4G Dongles

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With a 3G/4G dongle, your Synology Router can still provide Internet access to client devices via a 3G/4G network. The dongle can transform your Synology Router into a Wi-Fi hotspot.

To install a 3G/4G dongle to your Synology Router, please attach it to the USB slot. The installed dongle will be right available. If not, please check/modify the settings.

To manage the dongle settings, go to **Network Center > Internet > 3G & 4G**.

**Note:** Please refer to the [compatibility list](#) for approved 3G/4G dongles.

# Discover SRM Packages

This chapter introduces various Synology-developed packages to go with your Synology Router. The featured packages are all available via [Package Center](#) or [Synology Download Center](#).

## Safe Access

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Safe Access shields your network and allows you to easily manage the devices connected to your Synology Router. You can create profiles and assign devices to safeguard their Internet behavior, set up how long and what time to block or allow their Internet access, and create web filters to manage what websites profiles can visit.

Safe Access also includes the pause, reward, and access request features to help you flexibly manage your profiles. Furthermore, by blocking dangerous websites, the Network Protection function of the package also gives comprehensive protection to all the devices in your local network.

## VPN Plus Server

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VPN Plus Server turns your Synology Router into a powerful VPN server. This package allows secure VPN access through a web browser or client, and supports various VPN services including WebVPN, SSL VPN, SSTP, OpenVPN, L2TP/IPSec, and PPTP. Its Remote Desktop also enables employees to easily and securely access remote internal network resources through a web browser.

With Site-to-Site VPN, VPN Plus server allows multiple networks in different locations to establish secure connections between each other over the Internet. Moreover, with multiple management tools, this package can help the network administrator regulate and watch VPN traffic at all times.

## Threat Prevention

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Threat Prevention can protect the network security of your Synology Router and the subordinate devices by detecting/dropping malicious packets. This package offers various features to help you keep track of potential malicious threats.

## Download Station

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Download Station is a web-based download application which allows you to search and download files from the Internet through BitTorrent (BT), FTP, HTTP, NZB, Thunder, FlashGet, QQDL, and eMule, and subscribe to RSS feeds to keep you updated on the most popular or latest BT. It offers the auto unzip service to help you extract compressed files to your Synology Router whenever files are downloaded.

## DNS Server

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Domain Name System (DNS) helps users find Internet applications, computers, or other network devices by translating domain names into IP addresses. With DNS Server, your Synology Router can host multiple zones as well as provide name and IP address resolution services.

## Cloud Station Server

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Cloud Station is a file sharing service that allows you to back up and synchronize files between a centralized Synology Router and client devices (multiple local computers, mobile devices, and Synology devices). The Cloud Station Server package is required to be installed on the host Synology Router, while a client utility has to be installed on each client device you want to back up or sync with.

### Cloud Station Backup

Cloud Station Backup is a client utility that allows you to back up your files from multiple client computers to a centralized Synology router.

### Cloud Station Drive

Cloud Station Drive is a client utility which syncs files between your computers and Synology Router via the Internet, so that your data and documents are always up-to-date and stay beside you.

## Media Server

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Media Server provides a multimedia service for you to browse and play the multimedia contents on the Synology Router via DLNA/UPnP home devices.

With Media Server, you can easily connect those DLNA-certified devices such as smart TV sets and stereo systems to your home network, and stream multimedia files stored on your Synology Router to the devices to enjoy music, photos, and videos.

**Note:** Please refer to the [compatibility list](#) for approved DLNA devices.

## RADIUS Server

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Remote Authentication Dial-In User Service (RADIUS) is a networking protocol that provides centralized authentication, authorization, and accounting for wired and wireless network access.

# Discover Synology Mobile Applications



This chapter introduces useful Synology mobile applications to go with your Synology Router.

## DS router

DS router is designed to allow easy access to your Synology Router from your Android/iOS device. From the initial setup of your Synology Router, to monitoring network usage, and to adjusting firewall settings, DS router makes network management truly easy, intuitive and mobile. To dynamically inform you of the Wi-Fi connection quality, DS router also allows you to see the link rate (Android/ iOS) and signal strength (Android) between your mobile device and the Synology Router. With Safe Access, you can create profiles and manage devices, set time quotas, and apply web filters to protect certain users and supervise Internet access. You can also easily check and control the Wi-Fi system through Network Map.

### Install DS router

You can download DS router by clicking the operating system name or scanning the QR code:

Android	iOS
	

## Other Synology Mobile Applications

Synology presents three mobile applications – DS file, DS get, and DS cloud – to help you manage File Station, Download Station, and Cloud Station Server on your Synology Router.

### DS file

DS file is ideal to manage files stored on your Synology Router, upload or download between your Synology Router and your wireless device, or do basic editing tasks. Besides file management, DS file is also a useful tool to do anything from browsing pictures, watching videos or checking work documents when you are on the go.

DS file is available for [Android](#), [iOS](#).

### DS get

DS get allows you to access Download Station remotely from your wireless devices. You can easily find content online with the keyword search or simply by browsing your favorite websites: With a simple tap, you'll start the downloading directly to the storage of your Synology Router. You can also view and manage your downloads, as well as manage basic settings such as transfer speed limits, right from the app.

DS get is available for [Android](#).

### DS cloud

DS cloud is the counterpart to Cloud Station for your mobile device. It allows you to choose the folders on your Synology Router which you want to sync to your mobile device and make available for offline viewing anywhere you go. DS cloud also gives you total control over the sync criteria: For each folder, you can set the maximum file size as well as the type of files you wish to sync.

DS cloud is available for [Android](#) and [iOS](#).



## VPN Plus

Though the Synology SSL VPN service powered by Synology Router, VPN Plus allows easy access to the Internet and local network resources. This mobile application provides you with fast connection speeds, enhanced security, and better capacity to pass through firewalls.

VPN Plus is now available for [Android](#) and [iOS](#).

# Diagnosis Tools

This chapter introduces the features on your Synology Router to diagnose system and connection problems.

## Check Connection Status

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To grasp its current status and pin down the possible causes of a down connection, you need a quick, well-rounded checkup on the wired and Wi-Fi connections at [Network Center > Status](#). There you can also find the real-time network, CPU, memory usage, and device status.

For a detailed traffic log (up to one month long) of devices and applications, please go to [Network Center > Traffic Control > Monitor](#).

## Check Notifications

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The Synology Router sends instant notifications to have you informed of system/connection errors via various media (e.g. SRM desktop, SMS, and email). You can quickly zero in on the errors and find remedies.

To tailor-make the notification service, go to [Control Panel > Notification](#).

## Ping

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Ping is a utility used to diagnose throttling connections. Ping works by sending out a request packet to a target website or IP address and calculating the time lapse for receiving a response packet from the target.

- **Normal connection:** The response packet comes from the target instantly.
- **Slow connection:** The response packet comes from the target with significant delay.

Delayed packet transmission may occur in the suggested scenarios below:

- The target is busy dealing with huge traffic to and from other hosts/clients
- The target website/IP address is down/not working
- The Internet/local network connection of your Synology Router is not properly configured
- The ISP service is down

If the problem is identified as extraneous to your Synology Router, you may consult the ISP or other relevant service providers for assistance.

To diagnose connection problems with Ping, please go to [Network Tools > Ping](#).

## Traceroute

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Traceroute is a utility used to examine the Internet pathways taken to reach specific destinations. The physical route will be displayed on Google Map, along with the time lapse spent between two adjacent route points.

With Traceroute, you can better understand how your traffic is being routed.

To diagnose connection problems with Traceroute, please go to [Network Tools > Traceroute](#).

## Contact Technical Support

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Go to [Support Center](#) or [Synology's official website](#) to seek help from Synology Technical Support.

# FAQ

## SRM Operation

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### Why can't I log in to SRM?

- Make sure you use the correct IP/QuickConnect/DDNS address. Add the correct port number if you use the IP or QuickConnect address.
- Make sure you use the correct username and password.
- Check if the network connection between the router and the enquiring device works properly.

### What can I do if I forgot my SRM password?

- **As the administrator:**  
Perform Soft Reset to reset the administrator password.
- **As a non-administrator user:**
  - a Ask the administrator to select **Allow non-administrator users to reset forgotten passwords via email**.
  - b The user should go to the SRM login page, and click **Forgot your password?**
  - c Open the SRM-issued email at the previously specified email address and continue to reset the password.

### Why can't I update SRM successfully?

- Check if the update is newer than the current version running on the router.
- Check if you use a .pat update file officially released by Synology.

### What's the difference between Soft Reset and Hard Reset?

Please see "Reset Synology Router".

### How should I eject the USB/SD storage from my router?

To safely eject the external storage, please see "Install & Manage USB/SD Storage".

### How should I get the best Wi-Fi experience with my router?

We recommend placing your router upright with the stand kit included for optimal wireless results and better ventilation.

When your router is placed upright, the **EJECT** button will be hidden with the front panel facing down. In this situation, you can go to **Control Panel > Storage > Storage**, and click **Eject** to perform this operation.

# Network

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## Why can't I access the Internet?

- Make sure your wireless device is not banned under Traffic Control.
- Go to **Network Center** > **Status** > **Internet Connection**, and check if the status is "Connected".

## Why is the upload/download traffic slow?

- If **Traffic Control** is enabled, network speed promotion will be disabled and general transmission speed may be lower. To disable Traffic Control, go to **Network Center** > **Traffic Control** > **Advanced** > **Settings** for management.
- Check if your device's custom speed settings have been modified. Go to **Network Center** > **Traffic Control** > **General** and click the **Custom speed** icon to modify the settings.
- If you have created a large number of firewall or port forwarding rules, your network transmission performance may become slower. To remove firewall rules, go to **Network Center** > **Security** > **Firewall**. To remove port forwarding rules, go to **Network Center** > **Port Forwarding** > **Port Forwarding**.

## What can I do if port-forwarding doesn't work properly?

- Go to **Network Center** > **Port Forwarding** > **DMZ**, enable DMZ, and specify the DMZ host IP address. Then, see if the devices in the DMZ can be accessed from the Internet. As a specialized form of port forwarding, DMZ helps you find out whether the problem lies in port forwarding itself.
- If firewall is enabled on the router, suspend the firewall function for a while.
- Contact the ISP to know if the service port is blocked for any reason.

## Why can't I find my router via router.synology.com?

- You can only access your router via router.synology.com when the enquiring device is in the router's local network.
- Make sure the enquiring device (e.g. your PC) and the router are well-connected to each other via network cables or Wi-Fi connection.
- Re-connect your PC to the original port or another port on the router in case of poor contact between the network cable and the port socket.
- Simplify the network configuration by connecting your router and the PC directly, without hubs/switches in between, and try again.

## Why do I have abnormal incoming/outgoing traffic?

- Go to **Network Center** > **Traffic Control** > **Monitor**, and select **Enable traffic statistics** and **Enable application detection** to check which device/application overuses network bandwidth. Locate the device/application in question and disconnect/stop it.
- Go to **Security Advisor** and perform system scan to see if there is any malware overusing the network bandwidth.

## Does the router have SPI firewall?

Yes. In SRM, the SPI firewall is always enabled by default so no related management options are provided.

## Can the VPN Server package work on my router if I use IPv6 connection?

If the router provides IPv6 connection, you can only use VPN Server as an OpenVPN server. The other types of VPN (i.e. PPTP and L2TP/IPSec) are not supported under an IPv6 environment.

## What can I do if I can't connect to the router via VPN connection?

Make sure you enable the VPN pass-through function and select the corresponding options of the VPN protocols (PPTP, L2TP, IPSec) that you use.

## Wi-Fi

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### What can I do if I forgot the Wi-Fi SSID and its password?

- As the administrator, log in to SRM via wired connection and go to **Wi-Fi Connect > Wireless > Wi-Fi** to find out the Wi-Fi SSID and password.
- If you forgot the administrator's login credentials, you may perform Soft Reset to reset the Wi-Fi SSID and its password. For more information, please see "Reset Synology Router".

### Why did my Wi-Fi SSID disappear?

- Check if the Wi-Fi network is enabled (at **Wi-Fi Connect > Wireless > Wi-Fi**) and if the Wi-Fi switch is set "ON" on the Synology Router.
- Check if the SSID status is "Show" (at **Wi-Fi Connect > Wireless > Wi-Fi**). Then disable the Wi-Fi network and enable it again.

### Why can't my device connect to the Synology Router wirelessly?

- Check if the Wi-Fi button on your router is set "ON", the Wi-Fi feature is enabled in SRM, and the antennas are well-installed.
- Check if the device is too far away from the router or if there is any obstacle/electrical signal source that may interrupt the Wi-Fi connection.
- Check if your wireless device is connected to the Wi-Fi network hosted by the router. If the device is not in the router's local network, you cannot access SRM via router.synology.com or its local IP address.
- Move your wireless device closer to the router and reconnect again.

### Why can't my wireless devices communicate with each other though they are in the same Wi-Fi network?

AP isolation may have been enabled (at **Wi-Fi Connect > Wireless > Wi-Fi > Advanced options**). AP isolation prevents wireless client devices that join the same Wi-Fi network (2.4GHz or 5GHz) from communicating with each other.

### Why is the Wi-Fi signal weak and how can I improve it?

Weak Wi-Fi signal may come from the following reasons:

- The router is too distant from the client devices.
- The router's Wi-Fi transmit power is not strong enough. Go to **Wi-Fi Connect > Wireless > Wi-Fi > Advanced options**, and change the **Transmit power** level (Low, Middle, High).
- There might be intervening barriers (e.g. a large expanse of metal) that can block Wi-Fi signals. 5GHz Wi-Fi is more sensitive to such barriers than 2.4GHz, as mentioned in "Set up Your Wi-Fi Connection".
- Nearby devices (e.g. microwaves/wireless phones) using the same frequency band may interfere with the router's 2.4GHz Wi-Fi transmission.

To improve Wi-Fi signal strength, you may try the following solutions:

- Adjust the antennas to make them 45 degrees apart from each other as recommended in "Set up Synology Router Manager (SRM)". If the Wi-Fi strength is not boosted, you may try other angles to find out the best antenna placement.
- Relocate your router to the center of the area where the client devices are placed, or to a position where the router and the devices are within a visible distance without interfering barriers. However, the two locations may not always work, and you may try other locations to find out the best router placement.
- If there are radio transmitting devices near the router, to avoid channel overlapping, re-assign their operation channels to channels 1, 6, or 11 (for devices using 2.4GHz Wi-Fi); to any non-overlapping channels (for devices using 5GHz Wi-Fi).

## Why can't I boost a device's signal with beamforming?

- Only six devices can concurrently receive beamforming.
- Make sure your device supports beamforming too. This means the device must conform to the 802.11ac standards.
- RT2600ac performs beamforming for all its Wi-Fi connections by default, and does not provide relevant option on the management interface.

## Which Wi-Fi frequency (2.4GHz and 5GHz) should I choose?

Please see "Set up Your Wi-Fi Connection".

## Why can't I find the router's 5GHz Wi-Fi network?

Due to previous NCC (National Communications Commission) regulations, in Taiwan wireless devices manufactured before 2009 cannot make use of the 5GHz Wi-Fi channels 36-48. To help such wireless devices connect to the 5GHz Wi-Fi network, you should use alternative channels rather than channels 36-48 (at [Wi-Fi Connect > Wireless > Wi-Fi > 5GHz > Advanced options](#)).

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Section 19. Attorneys' Fees. In any arbitration, mediation, or other legal action or proceeding to enforce rights or remedies under this EULA, the prevailing party will be entitled to recover, in addition to any other relief to which it may be entitled, costs and reasonable attorneys' fees.

Section 20. Severability. If any provision of this EULA is held by a court of competent jurisdiction to be invalid, illegal, or unenforceable, the remainder of this EULA will remain in full force and effect.

Section 21. Entire Agreement. This EULA sets forth the entire agreement of Synology and you with respect to the Software and the subject matter hereof and supersedes all prior and contemporaneous understandings and agreements whether written or oral. No amendment, modification or waiver of any of the provisions of this EULA will be valid unless set forth in a written instrument signed by the party to be bound thereby.



## SYNOLOGY, INC. LIMITED PRODUCT WARRANTY

THIS LIMITED WARRANTY ("WARRANTY") APPLIES TO THE PRODUCTS (AS DEFINED BELOW) OF SYNOLOGY, INC. AND ITS AFFILIATES, INCLUDING SYNOLOGY AMERICA CORP, (COLLECTIVELY, "SYNOLOGY"). YOU ACCEPT AND AGREE TO BE BOUND BY THE TERMS OF THIS WARRANTY BY OPENING THE PACKAGE CONTAINING AND/OR USING THE PRODUCT. IF YOU DO NOT AGREE TO THE TERMS OF THIS WARRANTY, DO NOT USE THE PRODUCT. INSTEAD, YOU MAY RETURN THE PRODUCT TO THE RESELLER WHERE YOU PURCHASED IT FOR A REFUND IN ACCORDANCE WITH THE RESELLER'S APPLICABLE RETURN POLICY.

### Section 1. Products

- (a) "Products" refer to New Products or Refurbished Products.
- (b) "New Product", includes: (1) "Category I Product" means Synology product models RS810+, RS810RP+, RX410, all FS-series models, all DS/RS NAS models with the XS+/XS suffix (except RS3413xs+) in or after 13-series, all DX/RX/RXD expansion units with 12 or more drive bays in or after 13-series, 10GbE NIC, ECC DDR4 and ECC DDR3 memory modules. (2) "Category II Product" means Synology product models RS3413xs+, RS3412xs, RS3412RPxs, RS3411xs, RS3411RPxs, RS2211+, RS2211RP+, RS411, RS409RP+, RS409+, RS409, RS408-RP, RS408, RS407, DS3612xs, DS3611xs, DS2411+, DS1511+, DS1010+, DS509+, DS508, EDS14, RX1211, RX1211RP, RX4, DX1211, DX510, DX5, NVR1218, NVR216, VS960HD, VS360HD, VS240HD, M2D17, and all other non-ECC memory modules not included in Category I. (3) "Category III Product" means Synology product models that match the following requirements: all DS NAS models without the XS+/XS suffix and with 5 and more drive bays in or after 12-series, all RS NAS models without the XS+/XS suffix in or after 12-series, and all DX/RX expansion units with 4 or 5 drive bays in or after 12-series. (4) "Category IV Product" means all other Synology product models purchased by Customer after March 1, 2008. (5) "Category V Product" means all other Synology product models purchased by Customer before February 29, 2008 and any "spare parts" purchased directly from Synology.
- (c) "Refurbished Product" means all Synology products which have been refurbished and sold directly by Synology through Online Store, not including those sold by an authorized Synology distributor or reseller.
- (d) Other definition: "Customer" means the original person or entity purchasing the Product from Synology or an authorized Synology distributor or reseller; "Online Store" means an online shop operated by Synology or Synology's affiliate; "Software" means the Synology proprietary software that accompanies the Product when purchased by Customer, is downloaded by Customer from the Web Site, or is pre-installed on the Product by Synology, and includes any firmware, associated media, images, animations, video, audio, text and applets incorporated into the software or Product and any updates or upgrades to such software.

### Section 2. Warranty Period

- (a) "Warranty Period" : The warranty period commences on the date the Product is purchased by customer and ending (1) five years after such date for Category I Products; (2) three years after such date for Category II & III Products; (3) two years after such date for Category IV Products; (4) one year after such date for Category V Products; or (5) 90 days after such date for Refurbished Products, except for those sold as "as is" or with "no warranty" on Online Store.
- (b) "Extended Warranty Period" : For Customer purchasing EW201 optional service for applicable Products specified in Section 1 (b), the Warranty Period specified in Section 2 (a) of the applicable Product registered with EW201 optional service will be extended by two years.

### Section 3. Limited Warranty and Remedies

3.1 Limited Warranty. Subject to Section 3.6, Synology warrants to the Customer that each Product (a) will be free of material defects in workmanship and (b) under normal use will perform substantially in accordance with Synology's published specifications for the Product during the Warranty Period. Such limited warranty does not apply to the Software which shall be subject to the accompanying end user license agreement provided with the Product, if any. Synology provides no warranty to Refurbished Product sold as "as is" or with "no warranty" on Online Store.

3.2 Exclusive Remedy. If Customer gives notice of noncompliance with any of the warranties set forth in Section 3.1 within the applicable Warranty Period in the manner set forth below, then, upon verification of the noncompliance by Synology, Synology will, at Synology's option: (a) use commercially reasonable efforts to repair the Product, or (b) replace the noncomplying Product or part thereof upon return of the complete Product in accordance with Section 3.3 The foregoing sets forth Synology's entire liability and Customer's sole and exclusive remedy for any breach of warranty under Section 3.1 or any other defect or deficiency in the Product. Customer will reasonably assist Synology to diagnose and validate any nonconformity with the Product. The warranty set forth in Section 3.1 does not include: (1) any warranty relating to the Software; (2) physical installation or removal of the Product from Customer's site; (3) visits to Customer's site; (4) labor necessary to effect repairs or replace defective parts other than during Synology's or its contracted service providers' normal local business hours, exclusive of weekends and service providers' holidays; (5) any work with any third party equipment or software; (6) any warranty of the hard disk if installed by Customer or any other third party; or (7) any warranty of compatibility with the hard disk.

3.3 Return. Any Product returned by Customer under Section 3.2 must be assigned a Return Merchandise Authorization

("RMA") number by Synology before shipment and must be returned in accordance with Synology's then current RMA procedures. Customer may contact any authorized Synology distributor or reseller or Synology Support to obtain assistance in obtaining an RMA, and must provide proof of purchase and product serial number when asking for such assistance. For warranty claims, Customer must return the complete Product to Synology in accordance with this Section 3.3 to be eligible for coverage under this Warranty. Any Product returned without an RMA number, or any Product that has been disassembled (except under the direction of Synology) will be refused and returned to Customer at Customer's expense. Any Product that has been assigned a RMA number must be returned in the same condition as it was received from Synology to the address designated by Synology, freight pre-paid, in packaging sufficient to protect the contents thereof and with the RMA number prominently displayed on the outside of the box. Customer is responsible for insurance and risk of loss with respect to returned items until they are properly received by Synology. A Product with a RMA number must be returned within fifteen (15) days after issuance of the applicable RMA number.

3.4 Replacement by Synology. If Synology elects to replace any Product under this Warranty set forth in Section 3.1, then Synology will ship a replacement Product at Synology's expense via the shipping method selected by Synology after receipt of the nonconforming Product returned in accordance with Section 3.3 and validation by Synology that the Product does not conform to the warranty. In some countries, Synology may at its own discretion apply the Synology Replacement Service to certain Products, through which Synology will ship a replacement Product to Customer before its receipt of the nonconforming Product returned by Customer ("Synology Replacement Service").

3.5 Support. During the Warranty Period, Synology will make available to Customer the support services. Following the expiration of the applicable Warranty Period, support for Products may be available from Synology upon written request.

3.6 Exclusions. The foregoing warranties and warranty obligations do not apply to any Product that (a) has been installed or used in a manner not specified or described in the Product specifications; (b) has been repaired, modified or altered by anyone other than Synology or its agent or designee; (c) has been in any way misused, abused, or damaged; (d) has been used with items not provided by Synology other than the hardware or software for which the Product is designed; or (e) otherwise fails to conform to the Product specifications and such failure is attributable to causes not within or under Synology's control. Further, the foregoing warranties will be void if (1) Customer disassembles the Product except as authorized by Synology; (2) Customer fails to implement any correction, modification, enhancement, improvement or other update made available to Customer by Synology; or (3) Customer implements, installs or uses any correction, modification, enhancement, improvement or other update made available by any third party. The warranty set forth in Section 3 will terminate upon Customer's sale or transfer of the Product to a third party.

3.7 Disclaimer of Warranties. THE WARRANTIES, OBLIGATIONS, AND LIABILITIES OF SYNOLOGY AND THE REMEDIES OF CUSTOMER SET FORTH IN THIS WARRANTY ARE EXCLUSIVE AND IN SUBSTITUTION FOR, AND CUSTOMER HEREBY WAIVES, RELEASES AND DISCLAIMS, ALL OTHER WARRANTIES, OBLIGATIONS AND LIABILITIES OF SYNOLOGY AND ALL OTHER RIGHTS, CLAIMS AND REMEDIES OF CUSTOMER AGAINST SYNOLOGY, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, WITH RESPECT TO THE PRODUCT, ACCOMPANYING DOCUMENTATION OR SOFTWARE AND ANY OTHER GOODS OR SERVICES DELIVERED UNDER THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO ANY: (A) IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE; (B) IMPLIED WARRANTY ARISING FROM COURSE OF PERFORMANCE, COURSE OF DEALING, OR USAGE OF TRADE; (C) CLAIM OF INFRINGEMENT OR MISAPPROPRIATION; OR (D) CLAIM IN TORT (WHETHER BASED ON NEGLIGENCE, STRICT LIABILITY, PRODUCT LIABILITY OR OTHER THEORY). SYNOLOGY MAKES NO GUARANTEE AND SPECIFICALLY DISCLAIMS ANY WARRANTY THAT THE DATA OR INFORMATION STORED ON ANY SYNOLOGY PRODUCT WILL BE SECURE AND WITHOUT RISK OF DATA LOSS. SYNOLOGY RECOMMENDS THAT CUSTOMER TAKES APPROPRIATE MEASURES TO BACK UP THE DATA STORED ON THE PRODUCT. SOME STATES/JURISDICTIONS DO NOT ALLOW LIMITATIONS ON IMPLIED WARRANTIES, SO THE ABOVE LIMITATION MAY NOT APPLY TO CUSTOMER.

#### Section 4. Limitations of Liability

4.1 Force Majeure. Synology will not be liable for, or be considered to be in breach of or default under this Warranty on account of, any delay or failure to perform as required by this Warranty as a result of any cause or condition beyond its reasonable control (including, without limitation, any act or failure to act by Customer).

4.2 Disclaimer of Certain Damages. IN NO EVENT WILL SYNOLOGY OR ITS SUPPLIERS BE LIABLE FOR THE COST OF COVER OR FOR ANY INCIDENTAL, INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL OR SIMILAR DAMAGES OR LIABILITIES WHATSOEVER (INCLUDING, BUT NOT LIMITED TO LOSS OF DATA, INFORMATION, REVENUE, PROFIT OR BUSINESS) ARISING OUT OF OR RELATING TO THE USE OR INABILITY TO USE THE PRODUCT, ANY ACCOMPANYING DOCUMENTATION OR SOFTWARE AND ANY OTHER GOODS OR SERVICES PROVIDED UNDER THIS WARRANTY, WHETHER BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHER THEORY EVEN IF SYNOLOGY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

4.3 Limitation of Liability. SYNOLOGY'S AND ITS SUPPLIERS' LIABILITY ARISING OUT OF OR RELATING TO THE

USE OR INABILITY TO USE THE PRODUCT, ANY ACCOMPANYING DOCUMENTATION OR SOFTWARE AND ANY OTHER GOODS OR SERVICES PROVIDED UNDER THIS WARRANTY IS LIMITED TO THE AMOUNT ACTUALLY PAID BY CUSTOMER FOR THE PRODUCT REGARDLESS OF THE AMOUNT OF DAMAGES CUSTOMER MAY INCUR AND WHETHER BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHER THEORY. The foregoing disclaimer of certain damages and limitation of liability will apply to the maximum extent permitted by applicable law. The laws of some states/jurisdictions do not allow exclusion or limitation of certain damages. To the extent that those laws apply to the Product, the exclusions and limitations set forth above may not apply to Customer.

## Section 5. Miscellaneous

5.1 Proprietary Rights. The Product and any accompanying Software and documentation provided with the Product include proprietary and intellectual property rights of Synology and its third party suppliers and licensors. Synology retains and reserves all right, title, and interest in the intellectual property rights of the Product, and no title to or ownership of any intellectual property rights in or to the Product, any accompanying Software or documentation and any other goods provided under this Warranty is transferred to Customer under this Warranty. Customer will (a) comply with the terms and conditions of the Synology end user license agreement accompanying any Software furnished by Synology or an authorized Synology distributor or reseller; and (b) not attempt to reverse engineer any Product or component thereof or accompanying Software or otherwise misappropriate, circumvent or violate any of Synology's intellectual property rights.

5.2 Assignment. Customer will not assign any of its rights under this Warranty directly, by operation of law or otherwise, without the prior written consent of Synology.

5.3 No Additional Terms. Except as expressly permitted by this Warranty, neither party will be bound by, and each party specifically objects to, any term, condition or other provision that conflicts with the provisions of this Warranty that is made by the other party in any purchase order, receipt, acceptance, confirmation, correspondence or otherwise, unless each party specifically agrees to such provision in writing. Further, if this Warranty conflicts with any terms or conditions of any other agreement entered into by the parties with respect to the Product, this Warranty will prevail unless the other agreement specifically references the sections of this Warranty that it supersedes.

5.4 Applicable Law. Unless explicitly prohibited by local law, this Warranty is governed by the laws of the State of Washington, U.S.A. for the Customers residing within the United States; and by the laws of the Republic of China (Taiwan) for Customers not residing within the United States, without regard to any conflict of law principles to the contrary. The 1980 U.N. Convention on Contracts for the International Sale of Goods or any successor thereto does not apply.

5.5 Dispute Resolution. Any dispute, controversy or claim arising out of or relating to this Warranty, the Product or services provided by Synology with respect to the Product or the relationship between Customers residing within the United States and Synology will be resolved exclusively and finally by arbitration under the current commercial rules of the American Arbitration Association, except as otherwise provided below. The arbitration will be conducted before a single arbitrator, and will be limited solely to the dispute between Customer and Synology. The arbitration, or any portion of it, will not be consolidated with any other arbitration and will not be conducted on a class-wide or class action basis. The arbitration shall be held in King County, Washington, U.S.A. by submission of documents, by telephone, online or in person as determined by the arbitrator at the request of the parties. The prevailing party in any arbitration or legal action occurring within the United States or otherwise shall receive all costs and reasonable attorneys' fees, including any arbitration fee paid by the prevailing party. Any decision rendered in such arbitration proceedings will be final and binding on the parties, and judgment may be entered thereon in any court of competent jurisdiction. Customer understands that, in the absence of this provision, Customer would have had a right to litigate any such dispute, controversy or claim in a court, including the right to litigate claims on a class-wide or class-action basis, and Customer expressly and knowingly waives those rights and agrees to resolve any disputes through binding arbitration in accordance with the provisions of this Section 5.5. For Customers not residing within the United States, any dispute, controversy or claim described in this section shall be finally resolved by arbitration conducted by three neutral arbitrators in accordance with the procedures of the R.O.C. Arbitration Law and related enforcement rules. The arbitration shall take place in Taipei, Taiwan, R.O.C., and the arbitration proceedings shall be conducted in English or, if both parties so agree, in Mandarin Chinese. The arbitration award shall be final and binding on the parties and may be enforced in any court having jurisdiction. Nothing in this Section shall be deemed to prohibit or restrict Synology from seeking injunctive relief or seeking such other rights and remedies as it may have at law or equity for any actual or threatened breach of any provision of this Warranty relating to Synology's intellectual property rights.

5.6 Attorneys' Fees. In any arbitration, mediation, or other legal action or proceeding to enforce rights or remedies under this Warranty, the prevailing party will be entitled to recover, in addition to any other relief to which it may be entitled, costs and reasonable attorneys' fees.

5.7 Export Restrictions. You acknowledge that the Product may be subject to U.S. export restrictions. You will comply with all applicable laws and regulations that apply to the Product, including without limitation the U.S. Export Administration Regulations.

5.8 Severability. If any provision of this Warranty is held by a court of competent jurisdiction to be invalid, illegal, or unenforceable, the remainder of this Warranty will remain in full force and effect.

5.9 Entire Agreement. This Warranty constitutes the entire agreement, and supersedes any and all prior agreements, between Synology and Customer related to the subject matter hereof. No amendment, modification or waiver of any of the provisions of this Warranty will be valid unless set forth in a written instrument signed by the party to be bound thereby.

## Radio Frequency Specifications

802.11 abgn and 802.11ac up to 80MHz Bandwidth,

Support beamforming and TPC Function and MIMO 3\*3 (RT1900ac)/4\*4 (RT2600ac)

Frequency and output power details for maximum EIRP

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
<b>2400-2483.5MHz</b>	1	2412 MHz	7	2442 MHz
	2	2417 MHz	8	2447 MHz
	3	2422 MHz	9	2452 MHz
	4	2427 MHz	10	2457 MHz
	5	2432 MHz	11	2462 MHz
	6	2437 MHz	-	-
<b>5150-5250 MHz</b> <b>(Band 1)</b>	36	5180 MHz	44	5220 MHz
	38	5190 MHz	46	5230 MHz
	40	5200 MHz	48	5240 MHz
	42	5210 MHz	-	-
<b>5250-5350 MHz</b> <b>(Band 2)</b>	52	5260 MHz	60	5300 MHz
	54	5270 MHz	62	5310 MHz
	56	5280 MHz	64	5320 MHz
	58	5290 MHz	-	-
<b>5470-5725 MHz</b> <b>(Band 3)</b>	100	5500 MHz	112	5560 MHz
	102	5510 MHz	116	5580 MHz
	104	5520 MHz	132	5660 MHz
	106	5530 MHz	134	5670 MHz
	108	5540 MHz	136	5680 MHz
	110	5550 MHz	140	5700 MHz
<b>5725-5850 MHz</b> <b>(Band 4)</b>	149	5745 MHz	157	5785 MHz
	151	5755 MHz	159	5795 MHz
	153	5765 MHz	161	5805 MHz
	155	5775 MHz	165	5825 MHz

## **Federal Communications Commission (FCC) Statement**

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

When using IEEE 802.11a wireless LAN, this product is restricted to indoor use, due to its operation in the 5.15 to 5.25GHz frequency range.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference, and
- 2) This device must accept any interference received, including interference that may cause undesired operation.

## **FCC RF Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## IC Statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

*Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

*Pour les produits disponibles aux États-Unis / Canada du marché, seul le canal 1 à 11 peuvent être exploités. Sélection d'autres canaux n'est pas possible.*

This device and its antennas(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with IC multi-transmitter product procedures.

*Cet appareil et son antenne (s) ne doit pas être co-localisés ou fonctionnement en association avec une autre antenne ou transmetteur.*

Dynamic Frequency Selection (DFS) for devices operating in the bands 5250- 5350 MHz, 5470-5600 MHz and 5650-5725 MHz

*Sélection dynamique de fréquences (DFS) pour les dispositifs fonctionnant dans les bandes 5250-5350 MHz, 5470-5600 MHz et 5650-5725 MHz*

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

*les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.*

The maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit.

*le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la limite de p.i.r.e.*

The maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate.

*le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5850 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.*

Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

*De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.*

For indoor use only.

*Pour une utilisation en intérieur uniquement.*



## **IMPORTANT NOTE:**

### **IC Radiation Exposure Statement:**

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

*Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.*

This radio transmitter RT1900ac has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

*Le présent émetteur radio RT1900ac a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.*

## EU Declaration of Conformity

Language	Statement
<b>English</b>	Hereby, <i>Synology Inc.</i> declares that this Wireless Router is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
<b>Finnish</b>	<i>Synology Inc.</i> vakuuttaa täten että Wireless Router tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
<b>Dutch</b>	Hierbij verklaart <i>Synology Inc.</i> dat het toestel Wireless Router in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG
<b>French</b>	Par la présente <i>Synology Inc.</i> déclare que l'appareil Wireless Router est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE
<b>Swedish</b>	Härmed intygar <i>Synology Inc.</i> att denna Wireless Router står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
<b>Danish</b>	Undertegnede <i>Synology Inc.</i> erklærer herved, at følgende udstyr Wireless Router overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF
<b>German</b>	Hiermit erkläre <i>Synology Inc.</i> dass sich dieser/diese/dieses Wireless Router in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet"
<b>Greek</b>	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ <i>Synology Inc.</i> ΔΗΛΩΝΕΙ ΟΤΙ Wireless Router ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ
<b>Italian</b>	Con la presente <i>Synology Inc.</i> dichiara che questo Wireless Router è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
<b>Spanish</b>	Por medio de la presente <i>Synology Inc.</i> declara que el Wireless Router cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE
<b>Portuguese</b>	<i>Synology Inc.</i> declara que este Wireless Router está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

## NCC 警語

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。