



Wi-Fi Extender

User Manual

Legal Information

About this Document

- This Document includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only.
- The information contained in the Document is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of the Document at the Hikvision website (<https://www.hikvision.com>). Unless otherwise agreed, Hangzhou Hikvision Digital Technology Co., Ltd. or its affiliates (hereinafter referred to as "Hikvision") makes no warranties, express or implied.
- Please use the Document with the guidance and assistance of professionals trained in supporting the Product.

About this Product

This product can only enjoy the after-sales service support in the country or region where the purchase is made.

Acknowledgment of Intellectual Property Rights

- Hikvision owns the copyrights and/or patents related to the technology embodied in the Products described in this Document, which may include licenses obtained from third parties.
- Any part of the Document, including text, pictures, graphics, etc., belongs to Hikvision. No part of this Document may be excerpted, copied, translated, or modified in whole or in part by any means without written permission.
- **HIKVISION** and other Hikvision's trademarks and logos are the properties of Hikvision in various jurisdictions.
- Other trademarks and logos mentioned are the properties of their respective owners.

LEGAL DISCLAIMER

- TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THIS DOCUMENT AND THE PRODUCT DESCRIBED, WITH ITS HARDWARE, SOFTWARE AND FIRMWARE, ARE PROVIDED "AS IS" AND "WITH ALL FAULTS AND ERRORS". HIKVISION MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE. THE USE OF THE PRODUCT BY YOU IS AT YOUR OWN RISK. IN NO EVENT WILL HIKVISION BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES, INCLUDING, AMONG OTHERS, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR LOSS OF DATA, CORRUPTION OF SYSTEMS, OR LOSS OF DOCUMENTATION, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), PRODUCT LIABILITY, OR OTHERWISE, IN CONNECTION WITH THE USE OF THE PRODUCT, EVEN IF HIKVISION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSS.
- YOU ACKNOWLEDGE THAT THE NATURE OF THE INTERNET PROVIDES FOR INHERENT SECURITY RISKS, AND HIKVISION SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER-ATTACK, HACKER ATTACK, VIRUS INFECTION, OR OTHER INTERNET SECURITY RISKS; HOWEVER, HIKVISION WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED.

- YOU AGREE TO USE THIS PRODUCT IN COMPLIANCE WITH ALL APPLICABLE LAWS, AND YOU ARE SOLELY RESPONSIBLE FOR ENSURING THAT YOUR USE CONFORMS TO THE APPLICABLE LAW. ESPECIALLY, YOU ARE RESPONSIBLE, FOR USING THIS PRODUCT IN A MANNER THAT DOES NOT INFRINGE ON THE RIGHTS OF THIRD PARTIES, INCLUDING WITHOUT LIMITATION, RIGHTS OF PUBLICITY, INTELLECTUAL PROPERTY RIGHTS, OR DATA PROTECTION AND OTHER PRIVACY RIGHTS. YOU SHALL NOT USE THIS PRODUCT FOR ANY PROHIBITED END-USES, INCLUDING THE DEVELOPMENT OR PRODUCTION OF WEAPONS OF MASS DESTRUCTION, THE DEVELOPMENT OR PRODUCTION OF CHEMICAL OR BIOLOGICAL WEAPONS, ANY ACTIVITIES IN THE CONTEXT RELATED TO ANY NUCLEAR EXPLOSIVE OR UNSAFE NUCLEAR FUEL-CYCLE, OR IN SUPPORT OF HUMAN RIGHTS ABUSES.
- IN THE EVENT OF ANY CONFLICTS BETWEEN THIS DOCUMENT AND THE APPLICABLE LAW, THE LATTER PREVAILS.




© Hangzhou Hikvision Digital Technology Co., Ltd. All rights reserved.

Applicable Models

This manual is applicable to the model: DS-3WRE3N

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
 Note	Provides additional information to emphasize or supplement important points of the main text.
 Caution	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 Danger	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

Safety Instructions

- Do not use the device in a place where wireless devices are not allowed.
- Clean only with dry cloth.
- Do not block any ventilation openings, such as newspapers, table-cloth, curtains.
- To avoid electrical shocks, do not insert any object into the ventilation openings.
- Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus that produce heat.
- Unplug this device during lightning storms or when unused for long periods of time.
- The mains plug is used as the disconnect device, which shall remain readily operable.
- Operating environment: Temperature: 0°C - 40°C (32°F - 104°F); Humidity: (10% - 90%) RH, non-condensing; Storage environment: Temperature: -40°C - 70°C (-40°F - 158°F); Humidity: (5% - 90%) RH, non-condensing.
- Warning: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing.
- Warning: To reduce the risk of electric shock, do not remove cover as there are no user-serviceable parts inside. Refer servicing to qualified personnel.

TABLE OF CONTENTS

Chapter 1 Quick Setup	1
1.1 Extend Your Wi-Fi Network through Web UI (Recommended)	1
1.2 Extend Your Wi-Fi Network through WPS button	6
Chapter 2 Status	7
2.1 View Internet Connection Status	8
2.2 View Online Devices	8
2.3 Blocklist	9
Block Unknown Devices	9
Unblock Devices	9
Chapter 3 Re-extend the Extender	10
Chapter 4 Wi-Fi Settings	13
4.1 Change Wi-Fi Name and Wi-Fi Password	14
4.2 Hide the Extender's Wi-Fi Network	14
4.3 Connect to the Hidden Wi-Fi Network	15
Chapter 5 Administration	17
5.1 Set Login Password	18
5.2 Reboot the Extender	19
5.3 Reset the Extender	20
Reset the Extender through Reset Button	20
Reset the Extender through Web UI	20
5.4 Export Syslog	21
5.5 Upgrade Firmware	22
Configure the Computer to Obtain an IPv4/IPv6 Address Automatically (Example: Windows 10)	24

Chapter 1 Quick Setup

This chapter introduces how to:

- [Extend Your Wi-Fi Network through Web UI \(Recommended\)](#)
- [Extend Your Wi-Fi Network through WPS button](#)

1.1 Extend Your Wi-Fi Network through Web UI (Recommended)

Note

- A desktop computer can connect to the Wi-Fi network only when it is installed with a wireless adapter.
- The following describes the configuration steps using a smartphone.

Step 1 Plug the extender into a power outlet near the Wi-Fi router. Wait until the indicator blinks red.

Step 2 Connect your smartphone to the extender's Wi-Fi network, which is **HIKVISION_EA90** in this example.

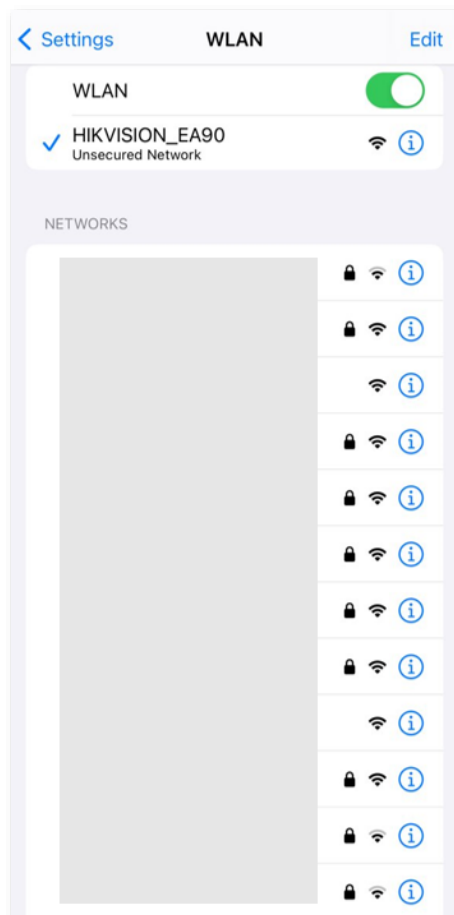


Figure 1-1 Connect to the extender's Wi-Fi

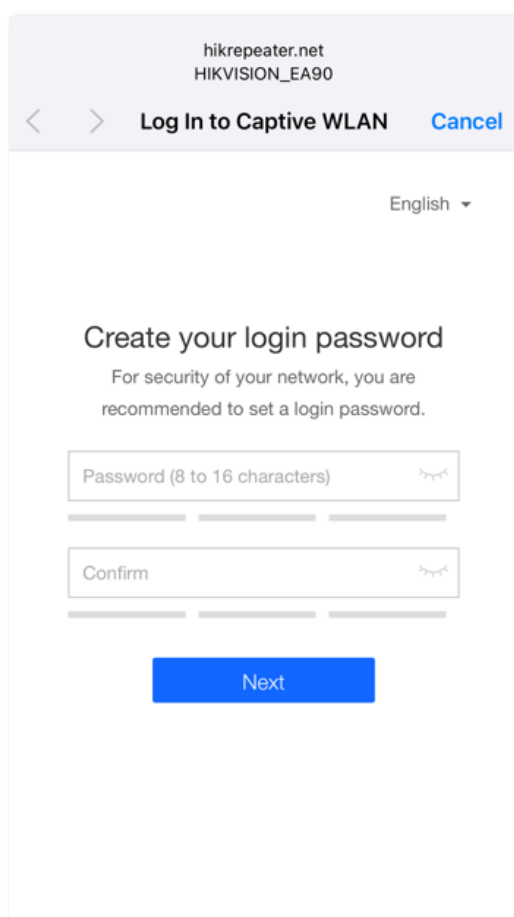
After connecting to the extender's Wi-Fi network, you will be redirected to the quick setup page.

Note

If you cannot log in to the web UI of the extender, try the following solutions:

- For Wi-Fi-enabled devices, such as a smartphone: ensure that your smartphone has connected to the extender's Wi-Fi network named **HIKVISION_XXXX**, and the **Mobile Data** (if any) function is disabled. Then manually start a web browser on your smartphone, and visit **hikrepeater.net** in the address bar.
- For wired devices, such as a computer: ensure that your computer has connected to the extender's Wi-Fi network named **HIKVISION_XXXX**, and your computer has set to **Obtain an IP address automatically** and **Obtain DNS server address automatically**.
- Replace a web browser.
- [Reset the extender](#), and try again.

Step 3 Create a login password for security (recommended) and tap **Next**.



The screenshot shows a mobile web browser interface for hikrepeater.net. The address bar displays 'hikrepeater.net' and 'HIKVISION_EA90'. Below the address bar, there are navigation arrows, the text 'Log In to Captive WLAN', and a 'Cancel' button. The main content area has a language selector set to 'English'. The title 'Create your login password' is followed by a message: 'For security of your network, you are recommended to set a login password.' There are two input fields: 'Password (8 to 16 characters)' and 'Confirm'. Both fields have a strength indicator icon on the right. Below the input fields is a blue 'Next' button.

Figure 1-2 Create your login password

Step 4 Select the Wi-Fi network you want to extend, which is **Hikvision123** in this example.

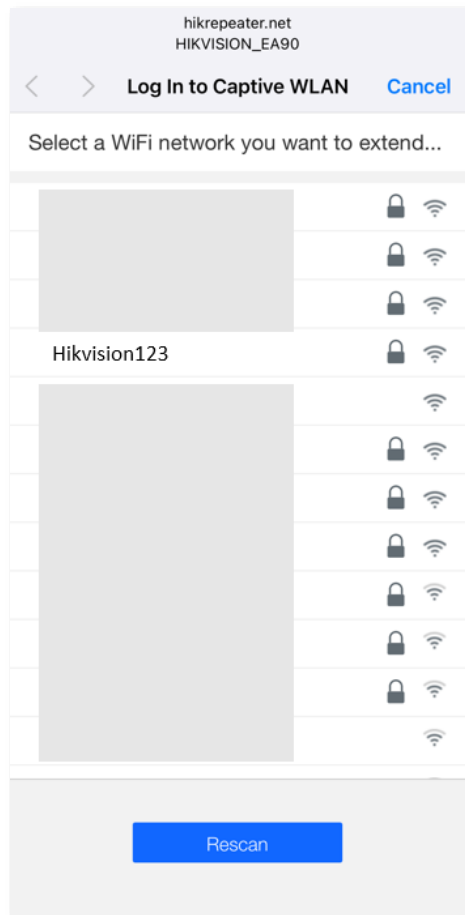


Figure 1-3 Select the Wi-Fi network

Note

If the extender cannot find the Wi-Fi network of your router. Try the following solutions:

- Ensure that the Wi-Fi network of your router is enabled and can be detected by your Wi-Fi-enabled devices. Tap **Rescan**, and wait a moment.
- Change the channel of your router, and try again.
- Change the encryption type of the router to **WPA-PSK** or **WPA2-PSK**, and try again.

Step 5 Enter the password of the Wi-Fi network you want to extend, change the SSID as required, and tap **Extend**.

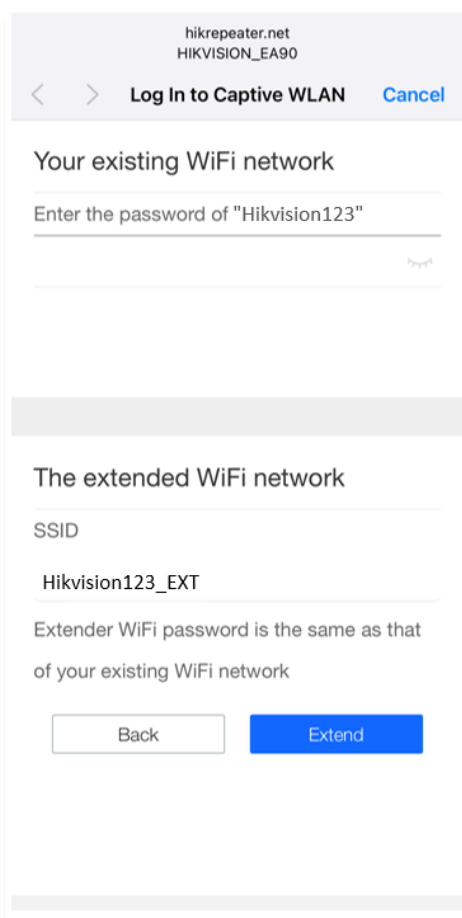


Figure 1-4 Wi-Fi password settings

Note

Configuration of the extender SSID is a tradeoff between better roaming experience and convenient management. Therefore, modify it as required.

- If you keep it identical to your existing Wi-Fi network name, you may enjoy a better roaming experience when moving around, but may have troubles when logging in to the web UI for management since your management device may stay connected to your existing Wi-Fi network other than your extender.
- If you set it differently from your existing Wi-Fi network name, you can log in to the web UI conveniently so long as your management device is connected to your extender's SSID, but the roaming experience may be affected.

Step 6 Wait until the indicator turns green or orange. Then, relocate the extender following the on-screen tips for optimal connection quality.

**Note**

For better performance:

- Place the extender within the range of your existing Wi-Fi network.
- Place the extender in a spacious position without obstacles.
- Keep the extender away from electronics with strong interference, such as microwave ovens, Bluetooth devices, and refrigerators.
- Adjust the antennas of the extender upward and vertical to the ground.

Connect your Wi-Fi-enabled devices to the extended network to access the internet.

- **SSID of the extended network:** The SSID you set, or the router's SSID with a suffix **_EXT**.
- **Wi-Fi password of the extended network:** The same as that of the router.

**Note**

If you want to change the extender's SSID and Wi-Fi password later, refer to [Change Wi-Fi name and Wi-Fi password](#).

1.2 Extend Your Wi-Fi Network through WPS button



Note

You can use this method if your router has a WPS button. Otherwise, use [Extend your Wi-Fi network using web UI](#).

Step 1 Plug the extender into a power outlet. Wait until the indicator blinks red.

Step 2 Press the WPS button on the Wi-Fi router to enable its WPS function.

Step 3 Within 2 minutes, press the WPS button (1-3s) on the extender.

The indicator lights solid red for 3 seconds, then blinking red quickly. When the indicator lights solid green, the setup is successful.



Note

If the indicator is off, use [Extend your Wi-Fi network using web UI](#).

Step 4 When the extender extends your existing Wi-Fi network successfully, plug the extender into an outlet halfway between the router and the Wi-Fi dead zone. The location you choose must be within the range of your existing Wi-Fi network.

Step 5 Check the indicator to see whether the extender is at a proper position.

- Solid green: Extended with good connection quality
- Solid orange: Extended with poor connection quality



Note

For better performance:

- Place the extender within the range of your existing Wi-Fi network.
- Place the extender in a spacious position without obstacles.
- Keep the extender away from electronics with strong interference, such as microwave ovens, Bluetooth devices, and refrigerators.
- Adjust the antennas upward and vertical to the ground.

You can connect your Wi-Fi-enabled devices to the extended network to access the internet.

- **SSID of the extended network:** The SSID you set, or the router's SSID with a suffix **_EXT**.
- **Wi-Fi password of the extended network:** The same as the router.



Note

If you want to change the extender's SSID and Wi-Fi password later, refer to [Change Wi-Fi name and Wi-Fi password](#).

Chapter 2 Status

Note

A computer installed with a wireless adapter is recommended for management of your extender.

This chapter introduces how to:

- [View Internet Connection Status](#)
- [View Online Devices](#)
- [Block/Unblock Unknown Devices](#)

To access the configuration page, [log in to the web UI of the extender](#), and click **Status**.

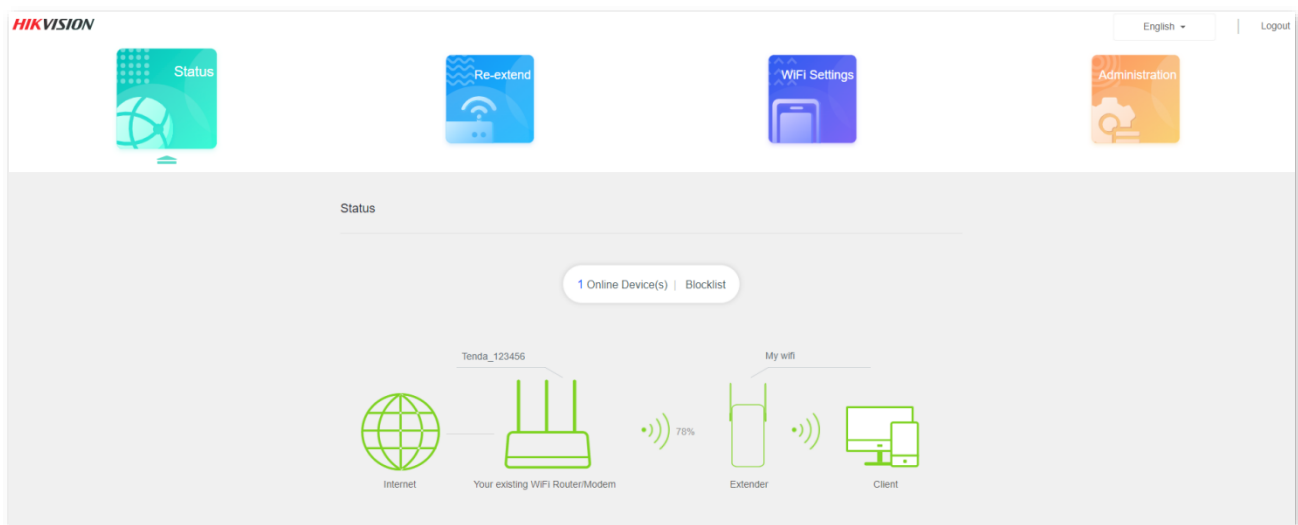




Figure 2-1 Internet status

2.1 View Internet Connection Status

The internet connection status between the extender and the existing Wi-Fi router is shown below:

Internet connection status	Description
	Extended successfully on 2.4 GHz band. The signal strength is indicated by percentage.
	Failed to extend.

2.2 View Online Devices

In this section, you can see the number of clients connected to the extender. Click **Online Device(s)** to view the detailed information about online devices, including **Device Name**, **MAC Address**, and so on.

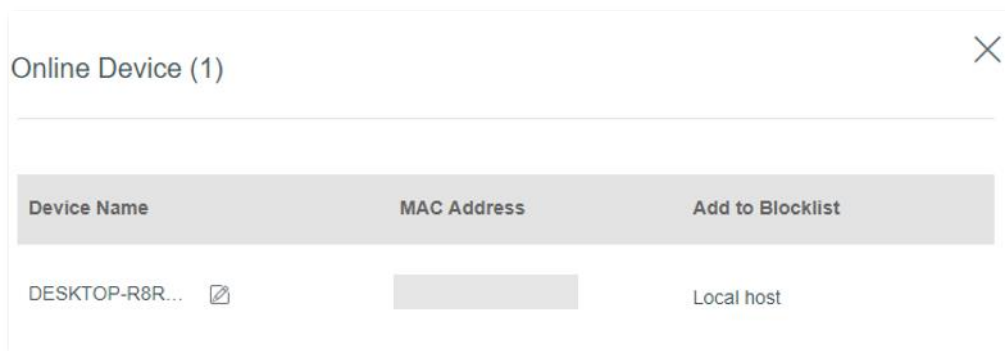


Figure 2-2 Online device

2.3 Blocklist

Block Unknown Devices

Step 1 [Log in to the web UI of the extender.](#)

Step 2 Navigate to **Status > Online Device(s)**.

Step 3 Click **Block** to block unauthorized or unknown devices.

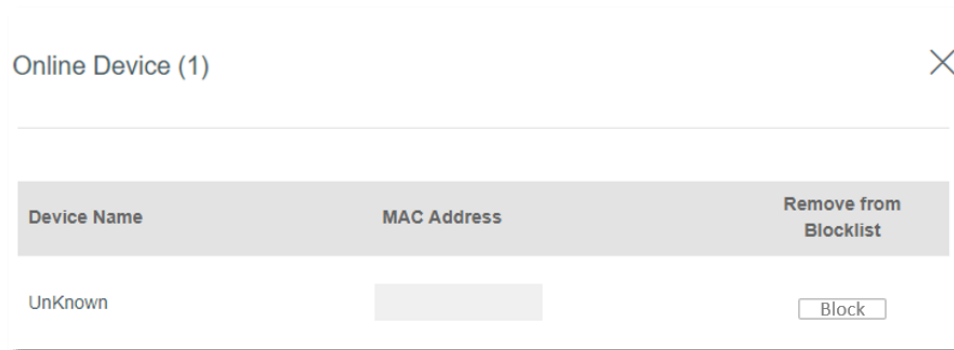


Figure 2-3 Block device

Devices in the blocklist cannot connect to the extender's Wi-Fi network. Navigate to **Status > Blocklist** to view the blocked devices.

Unblock Devices

Step 1 [Log in to the web UI of the extender.](#)

Step 2 Navigate to **Status > Blocklist**.

Step 3 Click **Unblock** to remove the blocked device from the blocklist.

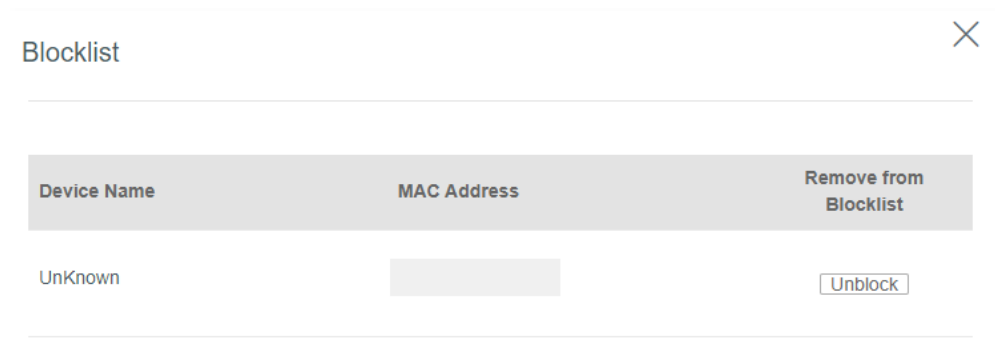


Figure 2-4 Unblock device

Devices removed from the **Blocklist** can connect to the extender again.

Chapter 3 Re-extend the Extender

If you need to use the extender at another place, or if the wireless information (including Wi-Fi name, Wi-Fi password) of your existing router is changed, you can re-extend your extender.

Step 1 [Log in to the web UI of the extender](#), and navigate to **Re-extend**.

Note

The extender supports to re-extend the 2.4 GHz Wi-Fi network.

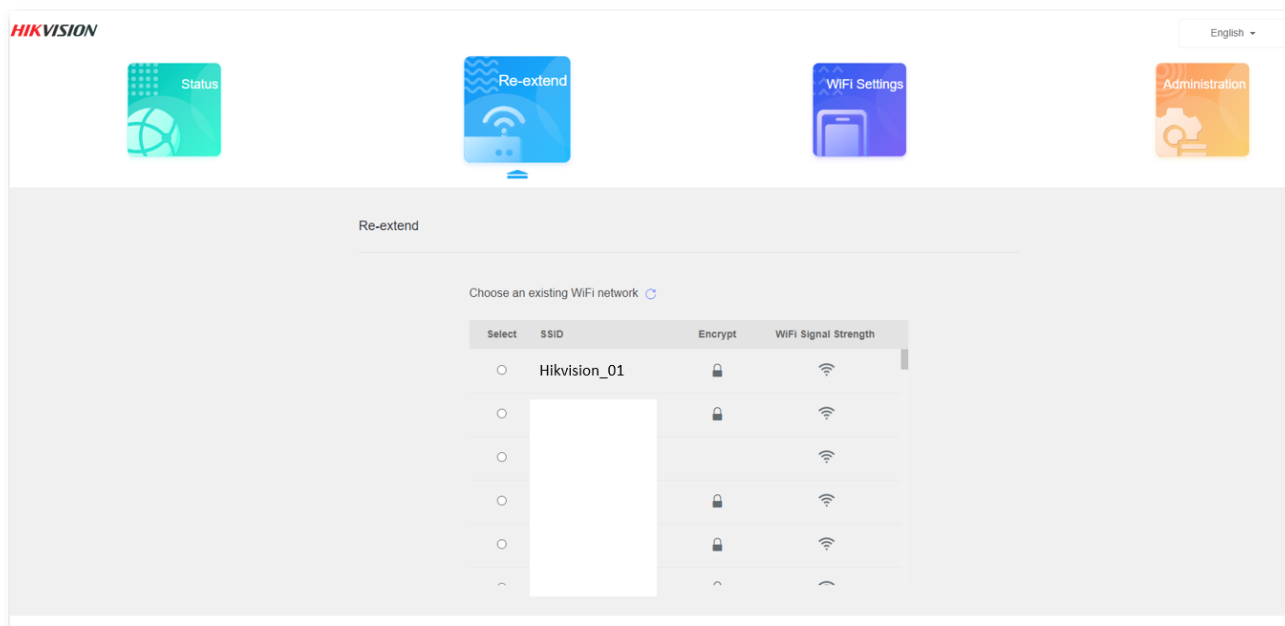



Figure 3-1 Re-extend the extender

Step 2 Select the Wi-Fi network you want to re-extend.

- 1) Select the SSID from the list.

Note

If the Wi-Fi network you want to extend is not on the list, try the following solutions:

- Click .
 - Ensure that your existing Wi-Fi network is not hidden.
 - Change the encryption type of the router to WPA-PSK or WPA2-PSK, and try again.
- 2) Enter the Wi-Fi password of the Wi-Fi network.
 - 3) Change the SSID (optional).

Note

The default SSID of the extended Wi-Fi network is your existing Wi-Fi network's SSID with a suffix **_EXT**.

- 4) Click **Next**.

Re-extend

Your Existing WiFi Network

Enter the password of "Hikvision_01"

Your Extender WiFi Network

Extender SSID:

Extender WiFi password is the same as that of your existing WiFi network

Back Next

Figure 3-2 Re-extend the extender

Step 3 Wait until the indicator lights green or orange, and the following page appears.

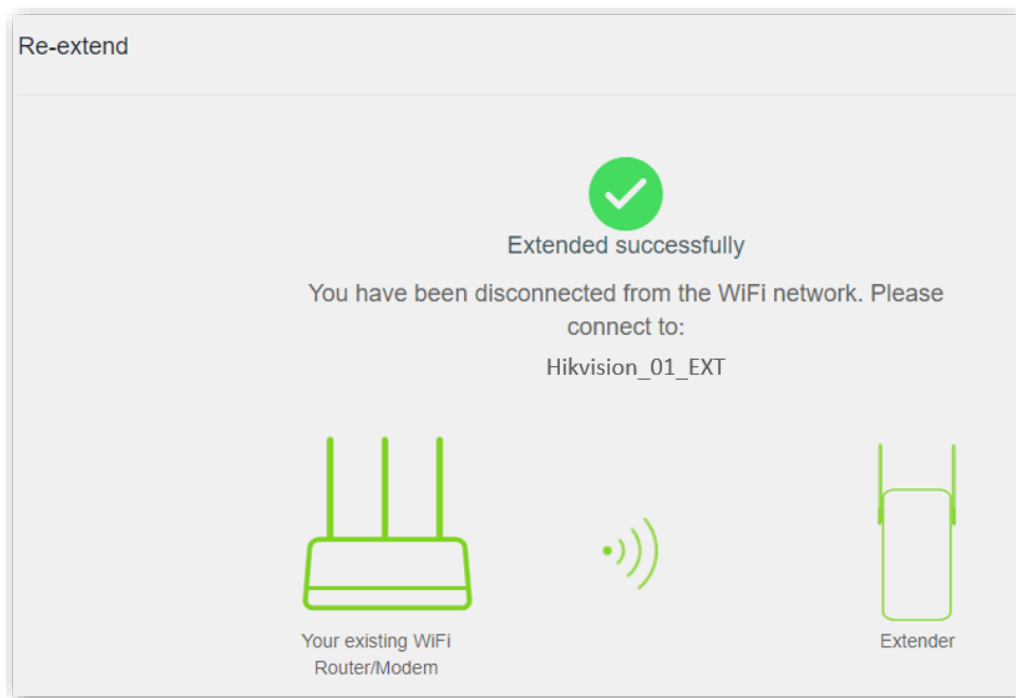


Figure 3-3 Extend the Wi-Fi network successfully

Step 4 Plug the extender into an outlet halfway between the router and the Wi-Fi dead zone. The location you choose must be within the range of your existing Wi-Fi network. Check the indicator to see whether the extender is in a proper position.

- Solid green: Extended with good connection quality
- Solid orange: Extended with poor connection quality. Move the extender closer to the Wi-Fi router

**Note**

- For better performance, keep the extender away from products with strong interference, such as microwaves, Bluetooth devices, and refrigerators.
- Place the extender at a spacious position without obstacles.

You can connect your Wi-Fi-enabled devices to the re-extended Wi-Fi network using the SSIDs you set or the existing Wi-Fi name with a suffix **_EXT**.

Chapter 4 Wi-Fi Settings

This chapter introduces how to:

- [Change Wi-Fi Name and Wi-Fi Password](#)
- [Hide the Extender's Wi-Fi Network](#)
- [Connect to the Hidden Wi-Fi Network](#)

This module allows you to change the extender's Wi-Fi name and Wi-Fi password, or to hide the extender's Wi-Fi name.

To access the page, [log in to the web UI of the extender](#), and navigate to **WiFi Settings**.

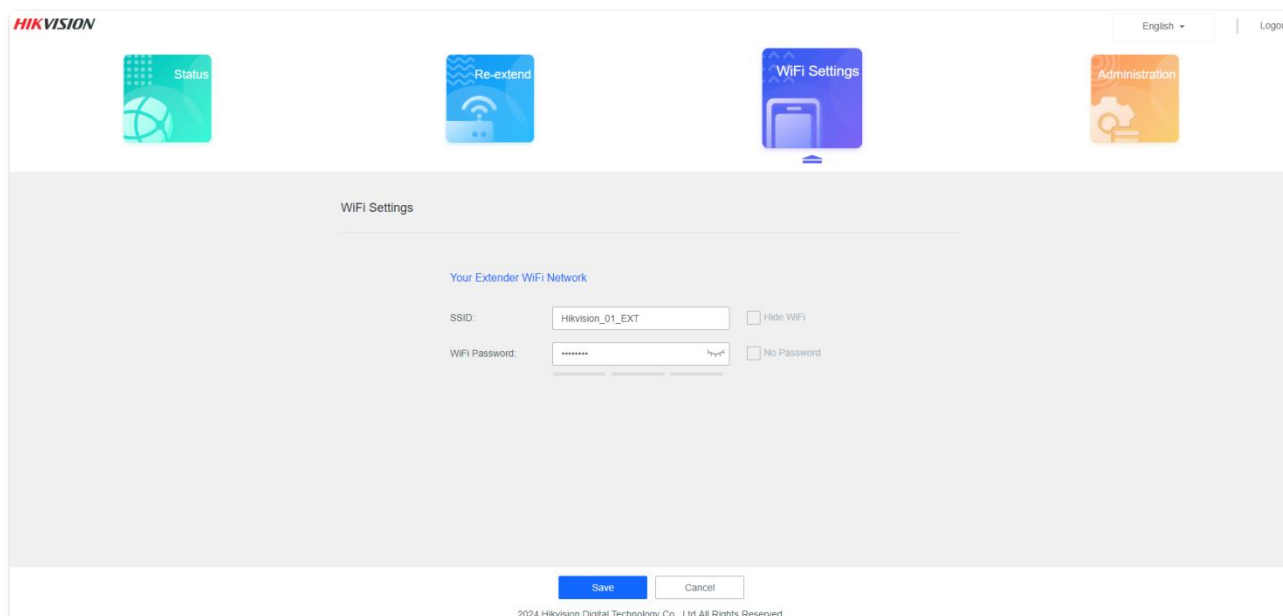


Figure 4-1 Wi-Fi settings

Table 4-1 Parameter description

Parameter	Description
SSID	Specifies the wireless network name of the extender.
WiFi Password	Password used for wireless network connection. You are recommended to use the combination of digits, letters and special characters for higher security.
Hide WiFi	With this function enabled, wireless clients cannot detect the corresponding SSID, and you need to manually enter the SSID on the wireless client to access the wireless network. By default, this function is disabled.
No password	It indicates that a wireless network is not encrypted and any clients can access the network without a password. This option is not recommended as it leads to low network security.

4.1 Change Wi-Fi Name and Wi-Fi Password

Step 1 [Log in to the web UI of the extender.](#)

Step 2 Navigate to **WiFi Settings**.

Step 3 Change the **SSID** and **WiFi Password** of 2.4 GHz and 5 GHz networks as required.

Step 4 Click **Save**.



Note

To access the internet on the Wi-Fi-enabled devices, you need to connect to the new SSID using the Wi-Fi password you set.

4.2 Hide the Extender's Wi-Fi Network

The extender supports hiding its Wi-Fi network so that wireless devices cannot scan it, thus improving the security of the extender's Wi-Fi network.

Step 1 [Log in to the web UI of the extender.](#)

Step 2 Navigate to **WiFi Settings**.

Step 3 Tick **Hide WiFi** corresponding to the Wi-Fi network, and click **Save**.

WiFi Settings

Your Extender WiFi Network

SSID: ☒ Hide WiFi

WiFi Password: ☐ No Password

Figure 4-2 Hide the extender's Wi-Fi network

After configurations, the extender disconnects all clients connected to it.

4.3 Connect to the Hidden Wi-Fi Network

To connect to the extender's Wi-Fi network again, you need to manually enter its SSID and Wi-Fi password on your Wi-Fi-enabled devices.

Assume that the relevant parameters as follows:

- Wi-Fi name: Alice
- Security: WPA2-PSK (Recommended)
- Wi-Fi password: UmXmL9UK

Procedure: (An iOS phone is used for illustration).

Step 1 Tap **Settings** on the homepage of your smartphone.

Step 2 Tap **WLAN**, and enable **WLAN**.

Step 3 Scroll down to the bottom of the WLAN page, and tap **Others...**

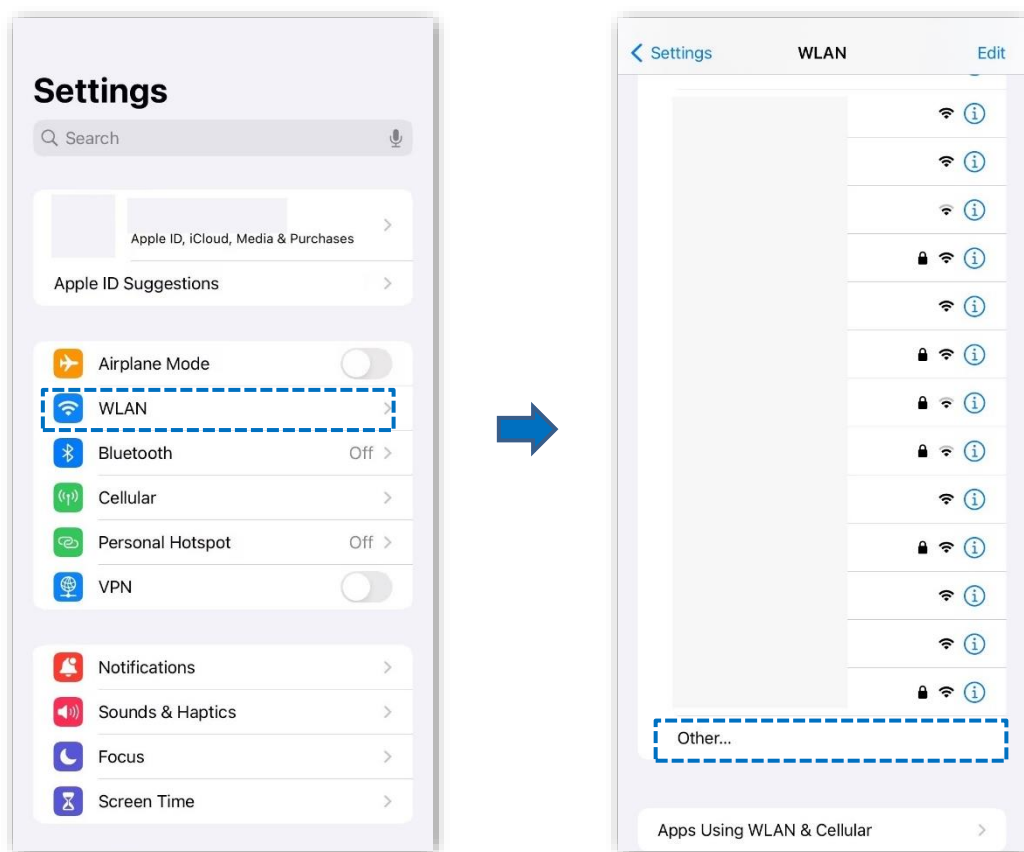


Figure 4-3 Connect to the hidden Wi-Fi network

Step 4 Enter the network **Name**, which is **Alice** in this example.

Step 5 Set the **Security** mode, which is **WPA2/WPA3** in this example.

Step 6 Enter the **Password**, which is **UmXmL9UK** in this example.

Step 7 Tap **Join**.

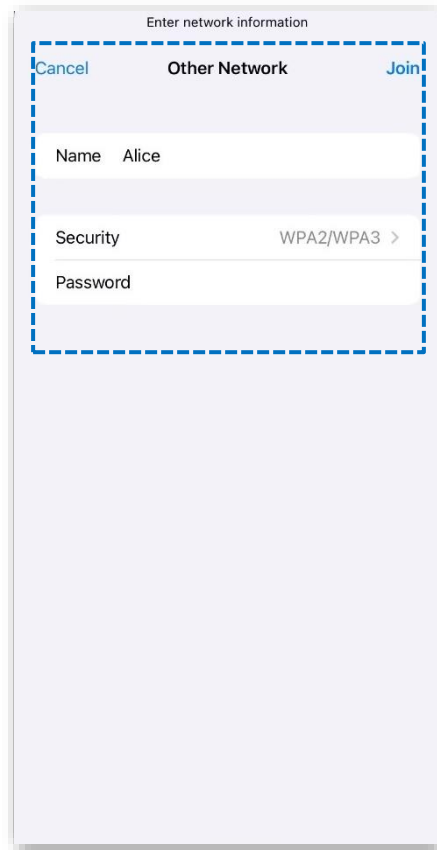


Figure 4-4 Connect to the hidden Wi-Fi network

Wait until your smartphone connects to the extender's Wi-Fi network, then you can access the internet.

Chapter 5 Administration

This chapter introduces how to:

- [Set Login Password](#)
- [Reboot the Extender](#)
- [Reset the Extender](#)
- [Export Syslog](#)
- [Upgrade Firmware](#)

This module allows you to set a login password, reboot or reset the extender, export system logs, and upgrade the extender.

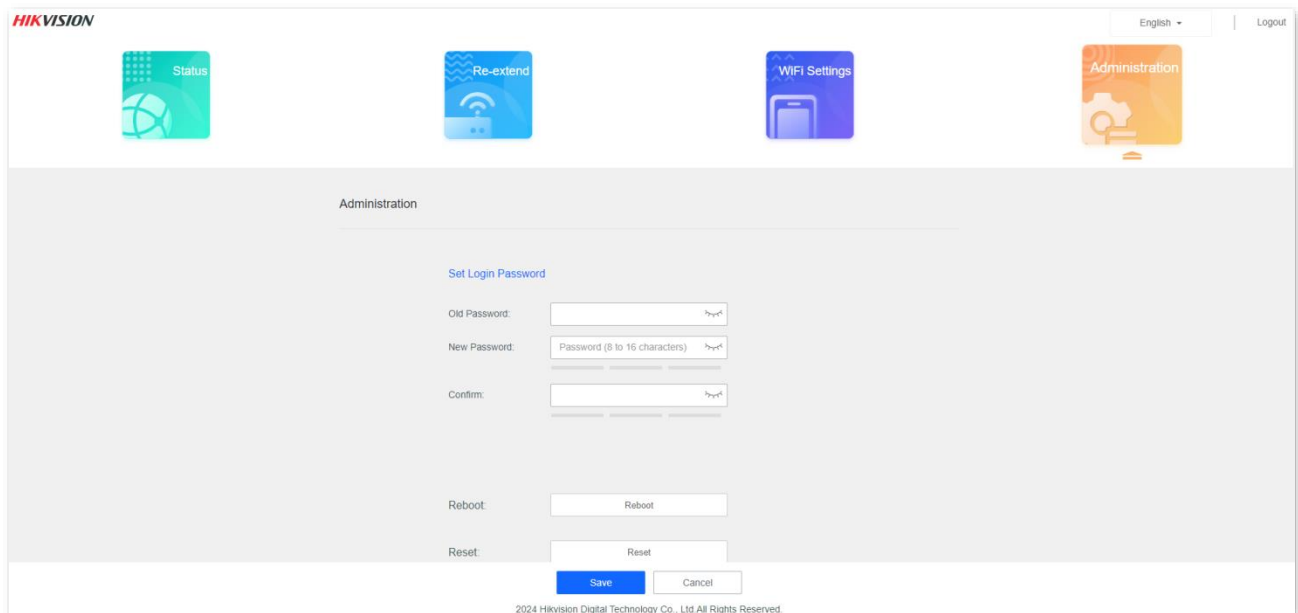


Figure 5-1 Administration

5.1 Set Login Password

To ensure network security, a complicated login password is recommended. A login password consisting of more types of characters, such as uppercase letters, lowercase letters, and special characters, has better security.

Step 1 [Log in to the web UI of the extender.](#)

Step 2 Navigate to **Administration**.

Step 3 In the **Old Password** text box, enter the current login password of the extender.

Step 4 In the **New Password** text box, set a new login password.

Step 5 In the **Confirm** text box, repeat the new login password.

Step 6 Click **Save** at the bottom of the page.

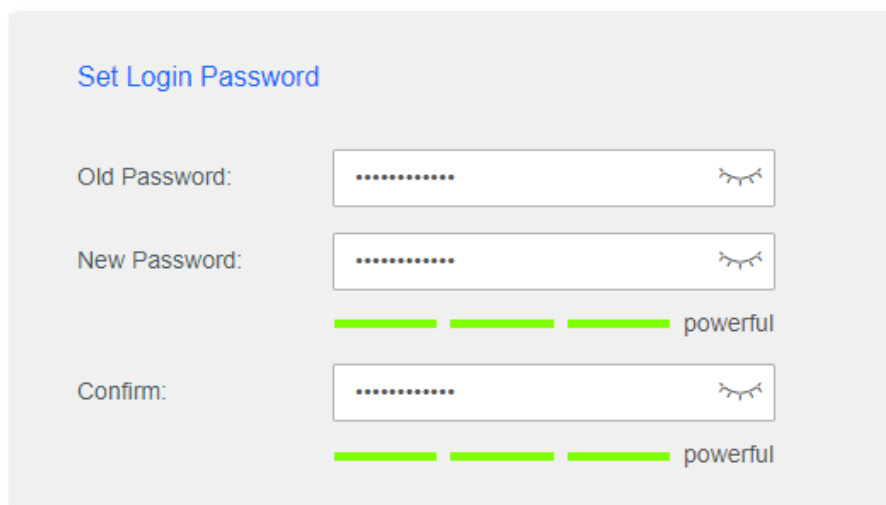
The screenshot shows a web form titled "Set Login Password" in blue text. It contains three input fields: "Old Password:", "New Password:", and "Confirm:". Each field is a white rectangle with a light gray border, containing a series of dots for the password. To the right of each field is a small icon of an eye with a slash through it, indicating a password toggle. Below the "New Password:" and "Confirm:" fields are two identical green progress bars. Each bar is divided into three segments, all of which are filled with green. To the right of each bar is the word "powerful" in a green, sans-serif font.

Figure 5-2 Set login password

The system logs you out automatically. Enter the new password to log in to the web UI of the extender.

5.2 Reboot the Extender

You are recommended to reboot the extender when the configured parameters do not take effect, or the extender does not work properly.

Step 1 [Log in to the web UI of the extender](#).

Step 2 Navigate to **Administration**.

Step 3 Click **Reboot**.

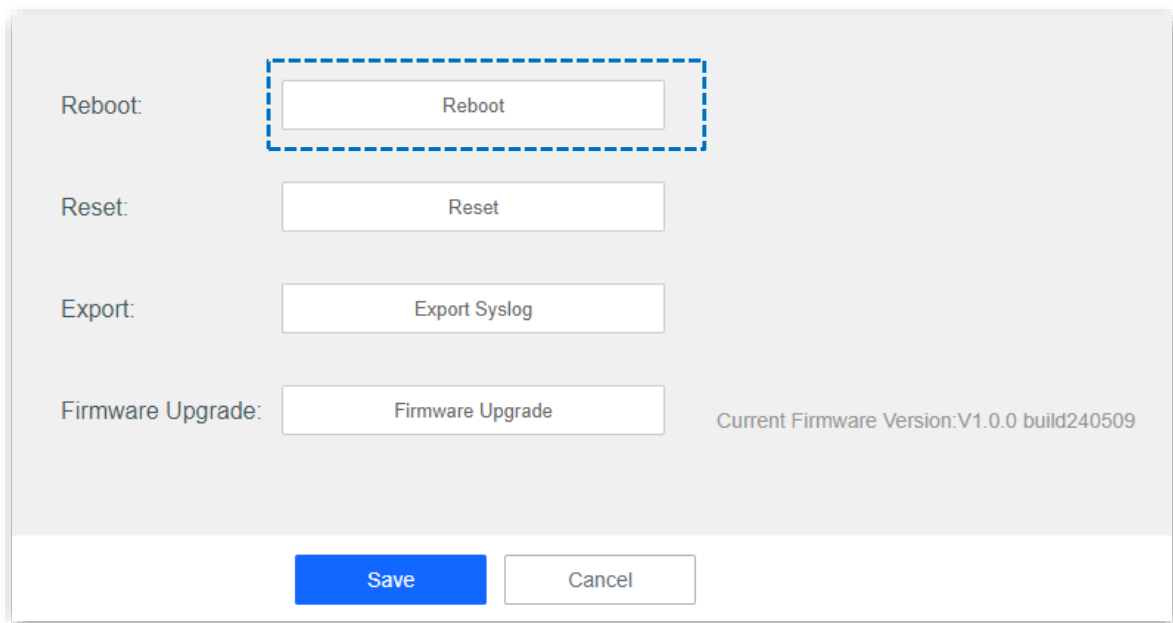


Figure 5-3 Reboot the extender

Step 4 Click **Reboot** on the pop-up window.

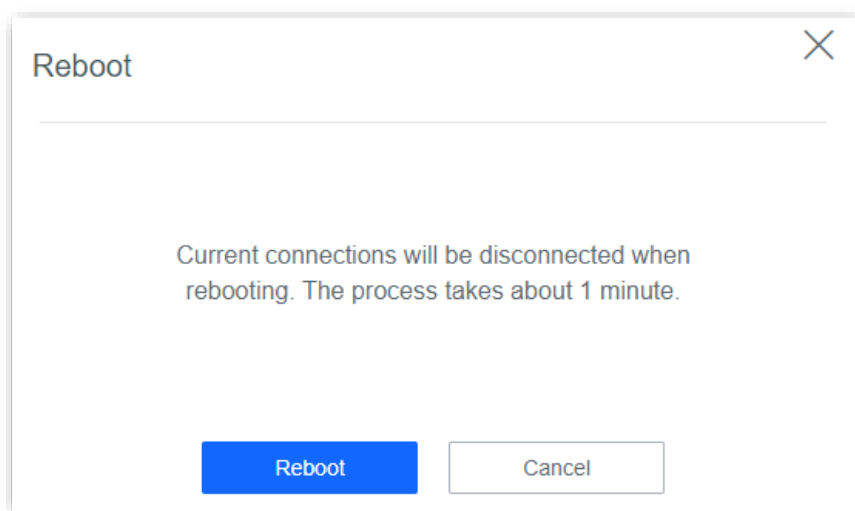


Figure 5-4 Reboot the extender

Wait a moment until the progress bar is completed.

5.3 Reset the Extender

You are recommended to reset the extender if you forgot your login password, or you cannot locate the problem that interrupts your extender's Wi-Fi network service.



Note

Resetting the extender clears all configurations. You need to configure the extender again.

Reset the Extender through Reset Button

With your extender powered on, press the reset button using a paper clip. Release it when the indicator lights red. The extender is restored to the factory settings.

Reset the Extender through Web UI

Step 1 [Log in to the web UI of the extender](#), and navigate to **Administration**.

Step 2 Click **Reset**.

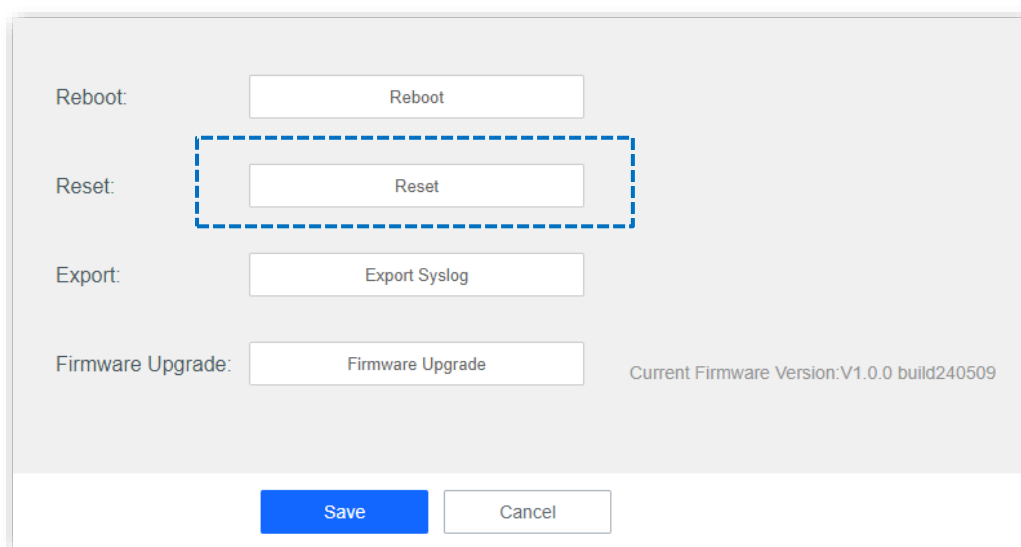


Figure 5-5 Reset the extender through web UI

Step 3 Enter and confirm the login password, and then click **OK**.

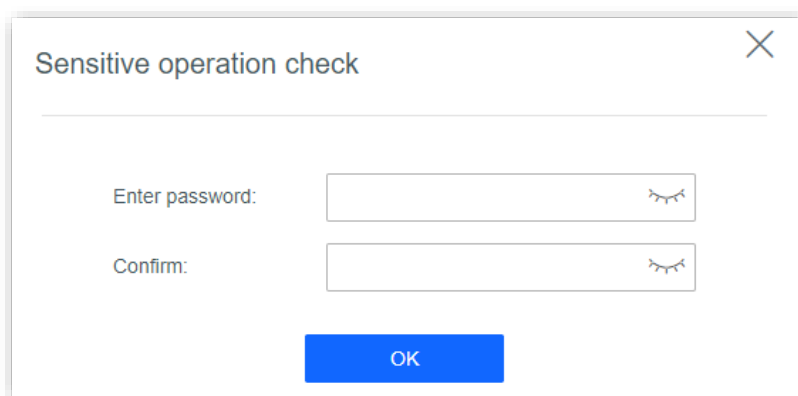


Figure 5-6 Reset the extender through web UI

Wait a moment until the progress bar is completed. You need to reconfigure the extender.

5.4 Export Syslog

System log is used to record events happened when the extender works. You can export the system log as required.

To access the configuration page, [log in to the web UI of the extender](#), navigate to **Administration**, and click **Export Syslog** to export system logs.

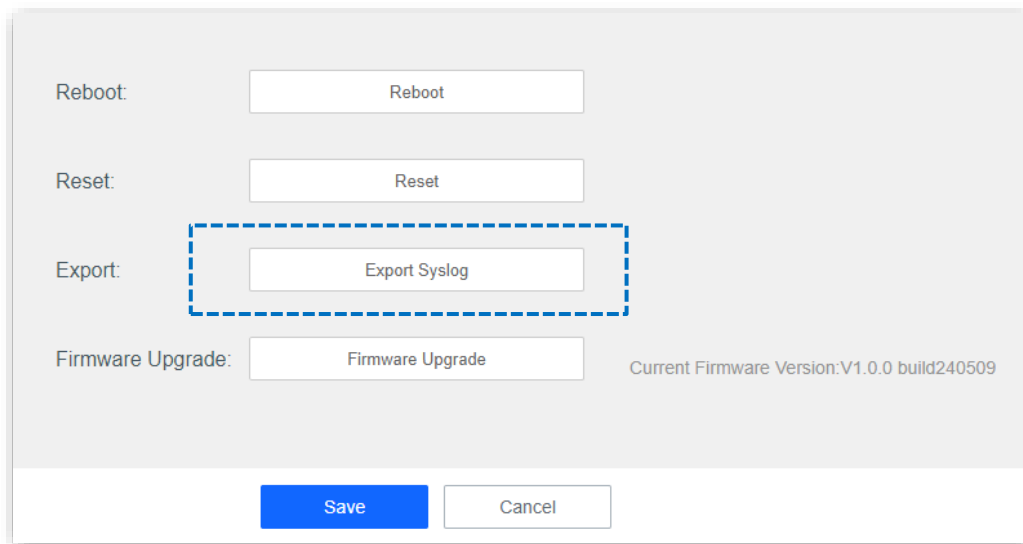


Figure 5-7 Export syslog

5.5 Upgrade Firmware

Note

- To enable your extender to upgrade successfully, ensure that the firmware used to upgrade is applicable to the extender.
- During upgrade, do not power off the extender.

Step 1 Go to www.hikvision.com, download the latest firmware package to your local computer, and unzip the package.

Note

Generally, the file format of a firmware is **.bin**.

Step 2 [Log in to the web UI of the extender](#), and navigate to **Administration**.

Step 3 Click **Firmware Upgrade** and choose the firmware file you have unzipped.

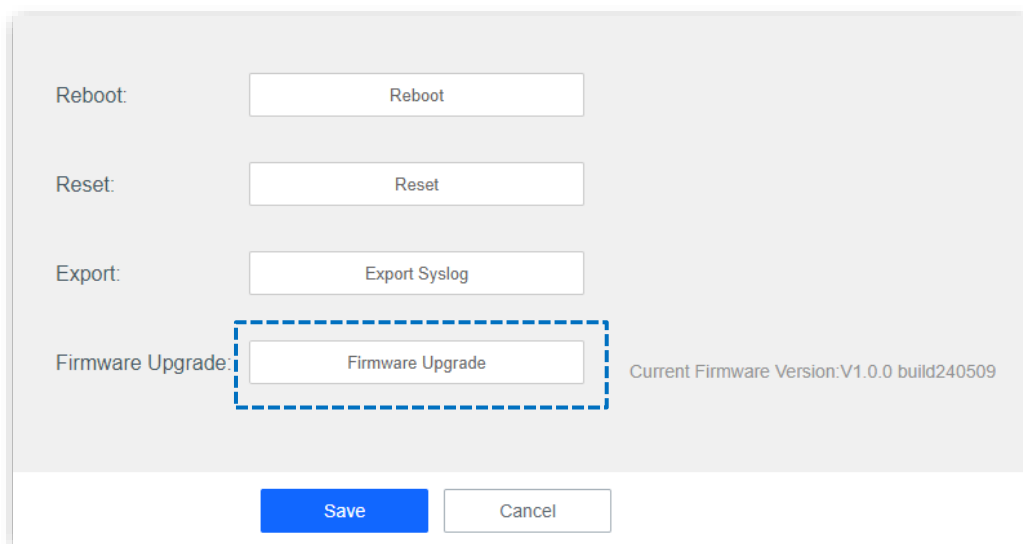


Figure 5-8 Upgrade firmware

Step 4 Enter and confirm the login password, and click **OK**.

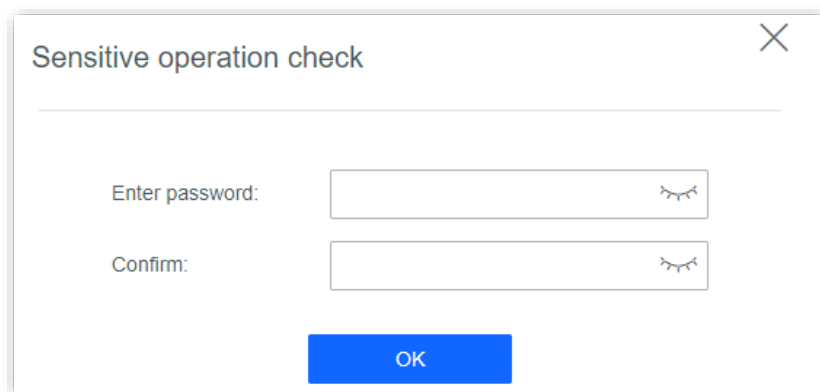



Figure 5-9 Upgrade firmware

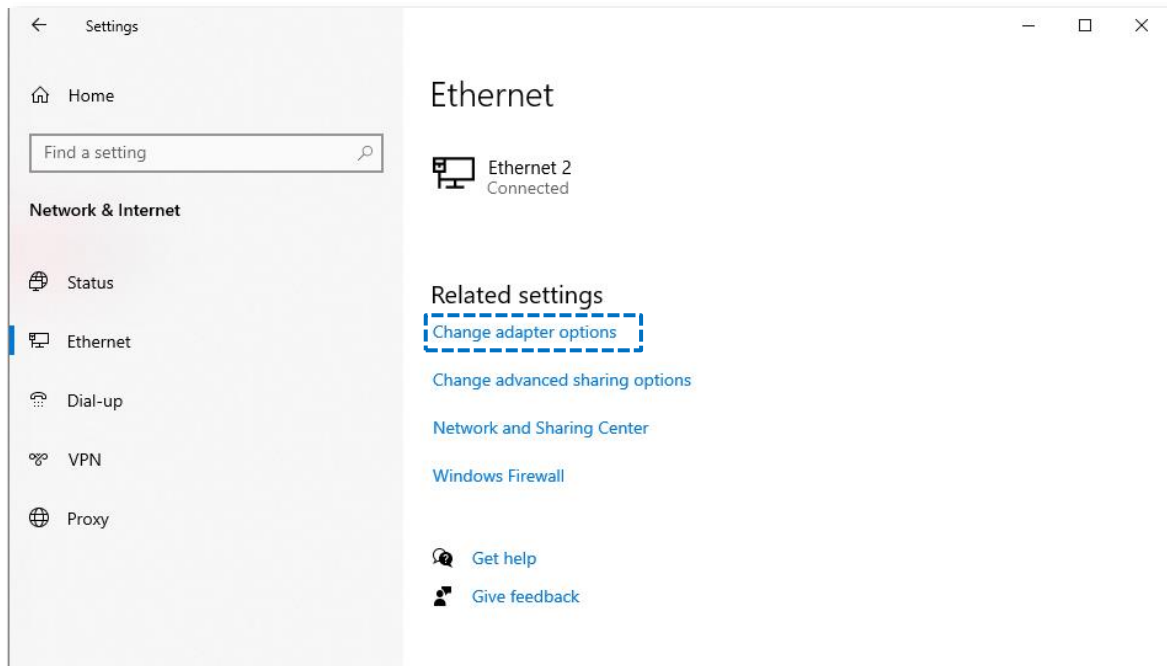
Wait until the progress bar is completed. Log in to the web UI of the extender, navigate to **Administration** and verify if the **Current Firmware Version** is the one you select to upgrade.

Configure the Computer to Obtain an IPv4/IPv6 Address Automatically (Example: Windows 10)

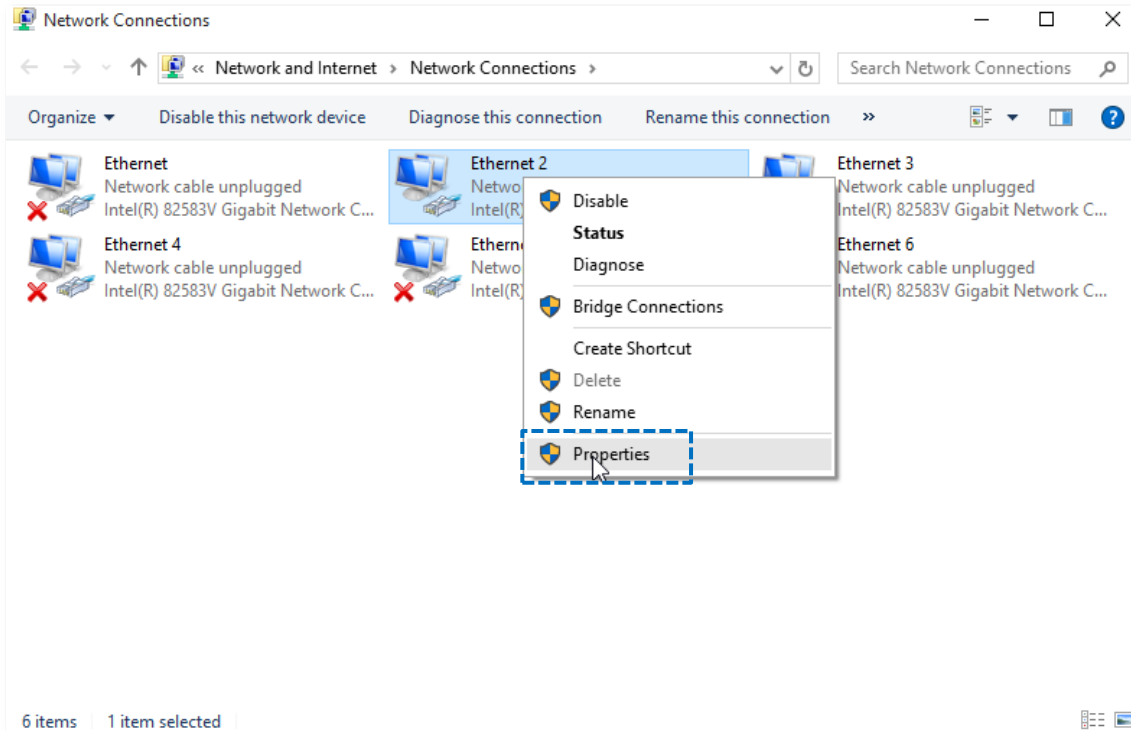
Step 1 Click  in the bottom right corner of the desktop and choose **Network & Internet settings**.

Network & Internet settings

Step 2 Click **Change adapter options**.



Step 3 Right click on the connection which is being connected, and then click **Properties**.

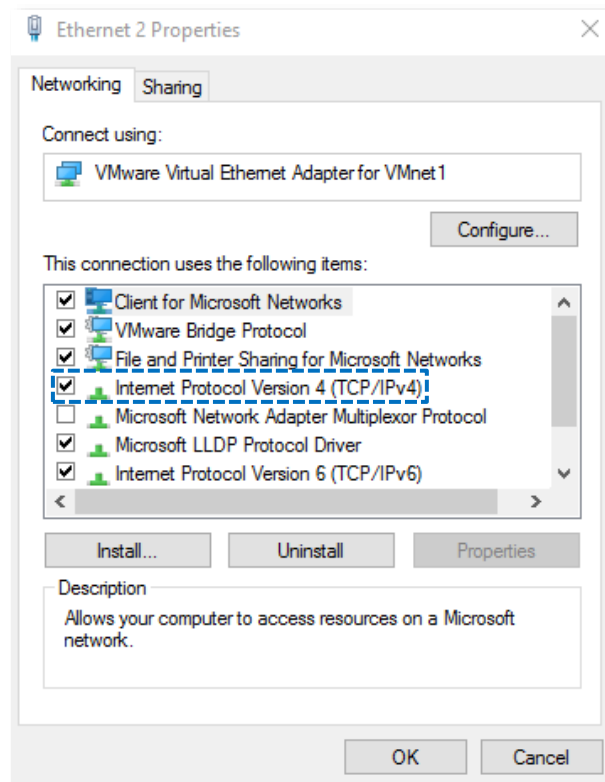


Step 4 Double-click **Internet Protocol Version 4 (TCP/IPv4)**.

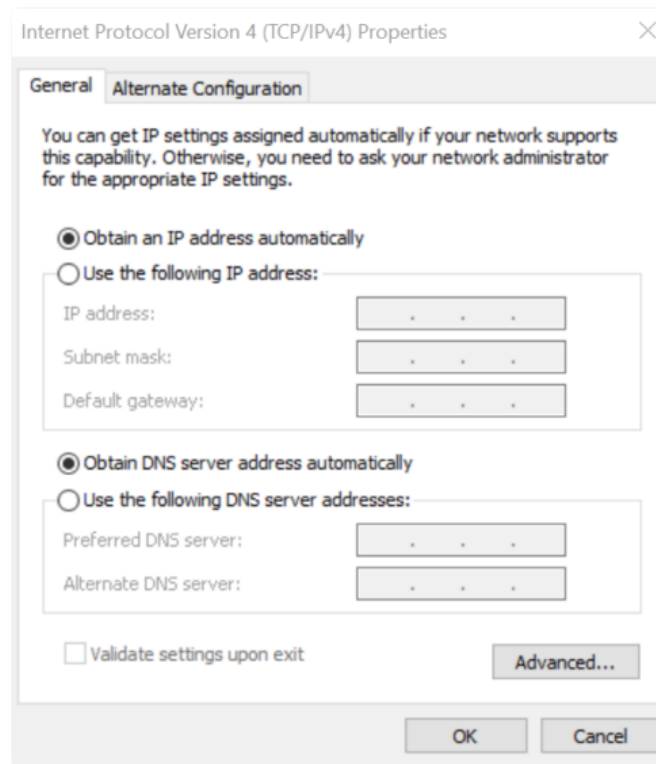


Note

If you want to configure the computer to allow it obtain an IPv6 address automatically, choose **Internet Protocol Version 6 (TCP/IPv6)**.



Step 5 Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and click **OK**.



Step 6 Click **OK** in the **Ethernet Properties** window



See Far, Go Further