EDIMAX
NETWORKING PEOPLE TOGETHER

BR-6428nS V3 / BR-6438nS
BR-6228nS V3 / BR-6238nS

User Manual

08-2014 / v1.0

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CONTENTS

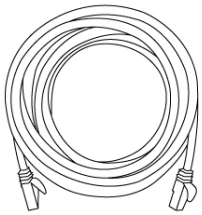
I. Product Information

I-1. Package Contents

Before you start using this product, please check if there is anything missing in the package, and contact your dealer to claim the missing item(s):

BR-6428nS V3* **or** ***BR-6228nS V3****

Power Adapter



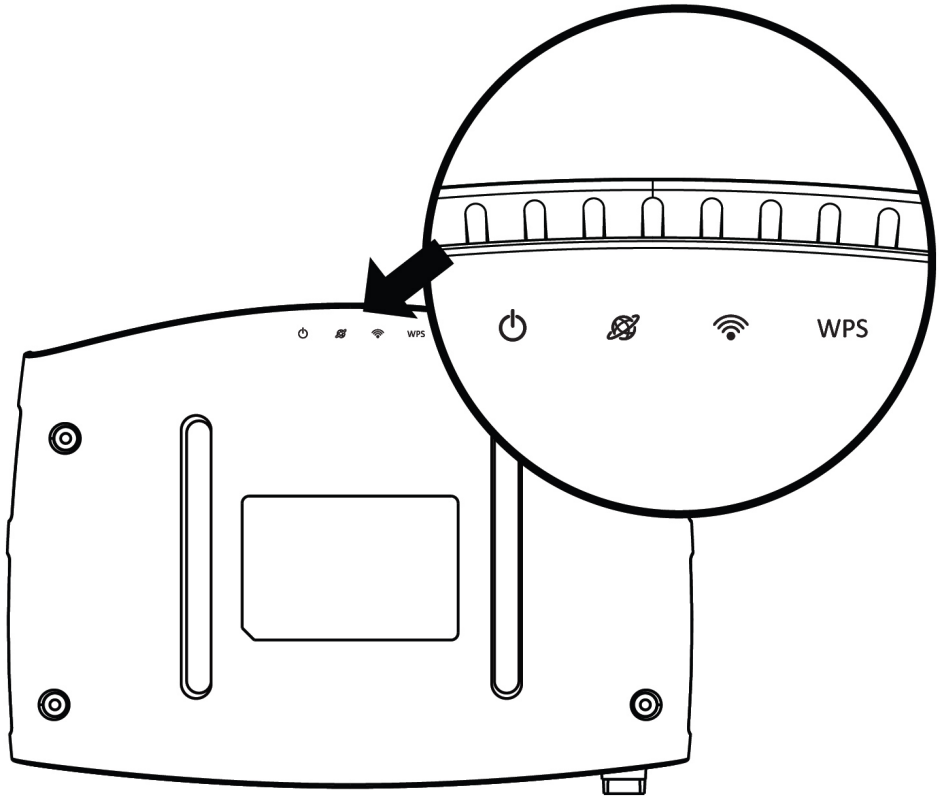
Ethernet Cable

Quick Installation Guide

CD-ROM

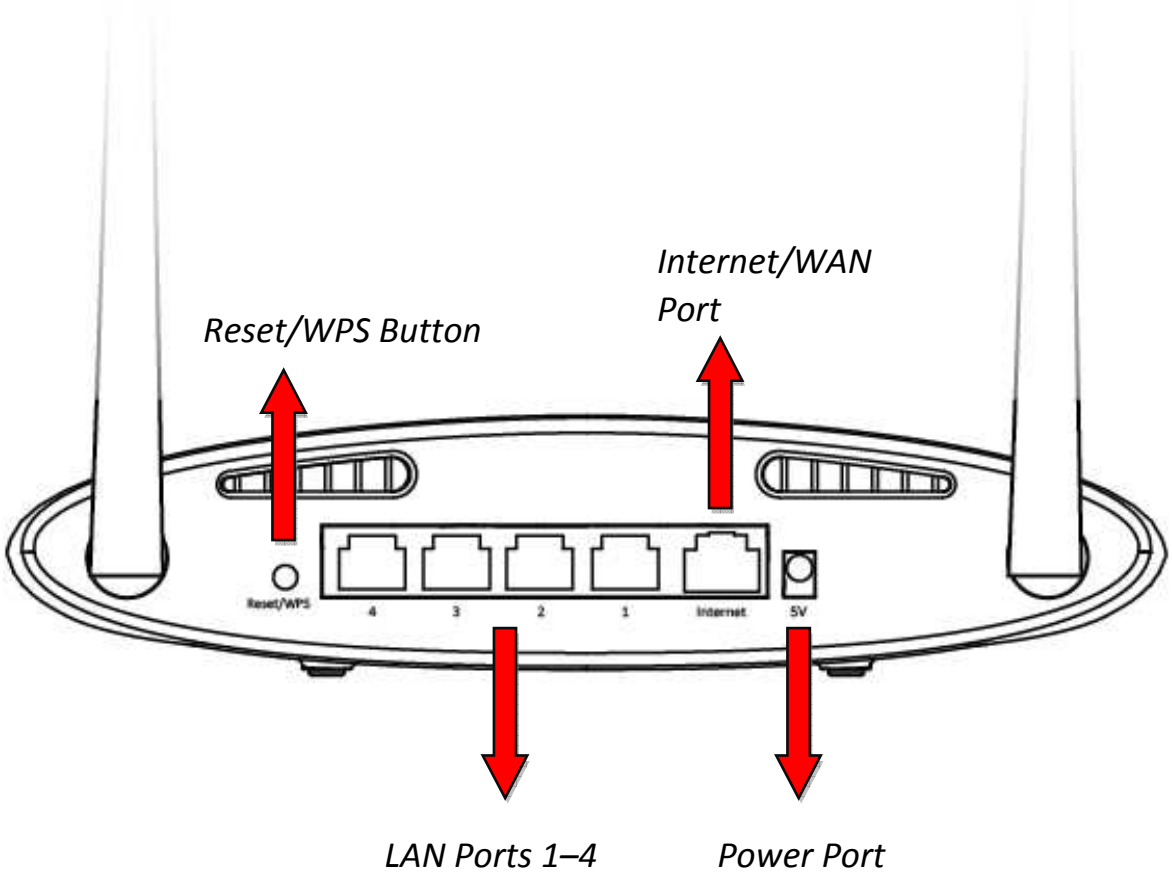
* BR-6428nS V3 and BR-6438nS are actually the same designed wireless router with different names.
* BR-6228nS V3 and BR-6238nS are actually the same designed wireless router with different names.

I-2. LED Status



LED	Color	LED Status	Description
Power	White	On	Device is on.
		Off	Device is off.
Internet	Blue	On	Internet is connected.
		Flashing	No Internet connection.
Wi-Fi	Blue	On	Wi-Fi activity (transferring/receiving data).
		Off	Wi-Fi not active.
WPS	Blue	On	WPS connection established (displays on for one minute).
		Flashing	WPS in progress.
		Off	No WPS connection.

I-3. Back Panel



I-4. Safety Information

In order to ensure the safe operation of the device and its users, please read and act in accordance with the following safety instructions.

1. The device is designed for indoor use only; do not place it outdoors.

2. Do not place the device in or near hot/humid places, such as a kitchen or bathroom.

3. Do not pull any connected cable with force; carefully disconnect it from the BR-6428nS V3/BR-6228nS V3.

4. Handle the device with care. Accidental damage will void the warranty of the device.

5. The device contains small parts which are a danger to small children under 3 years old. Please keep the device out of reach of children.

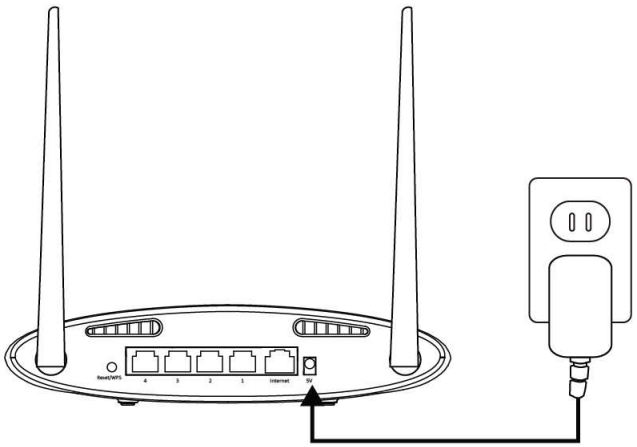
6. Do not place the device on paper, cloth, or other flammable materials. The device may become hot during use.

7. There are no user-serviceable parts inside the device. If you experience problems with the device, please contact your dealer of purchase and ask for help.

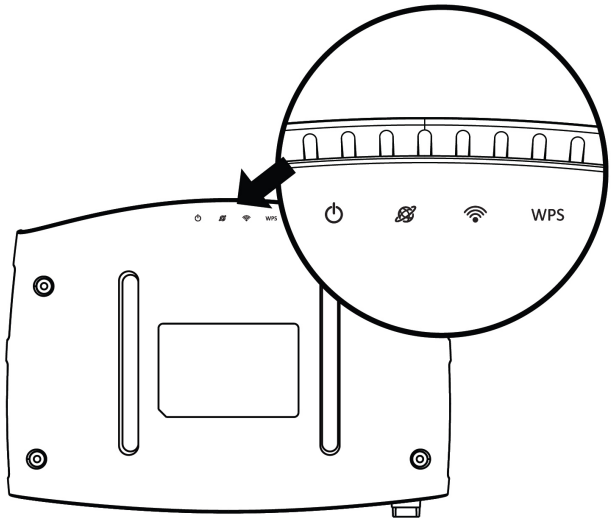
8. The device is an electrical device and as such, if it becomes wet for any reason, do not attempt to touch it without switching the power supply off. Contact an experienced electrical technician for further help.

II. Installation

1. Plug the included power adapter into the device's 5V DC power port and the other end into an electrical socket.



2. Ensure that the power LED is lit. If not, the device is not properly connected.



3. Use a Wi-Fi device (e.g. computer, tablet, smartphone) to search for a Wi-Fi network with the SSID "edimax.setup" and connect to it.

iOS 4 or Android 4 and above are required for setup on a smartphone or tablet.

4. Open a web browser and if you do not automatically arrive at the "Get Started" screen shown below, enter the URL ***http://edimax.setup*** and click **"Get Started"** to begin the setup process.

If you cannot access** http://edimax.setup**, please make sure your computer is set to use a dynamic IP address. Refer to** IV-1. Configuring your IP address **for more information.

5. Choose if you want to use your product in its default Wi-Fi router mode or in a different mode.

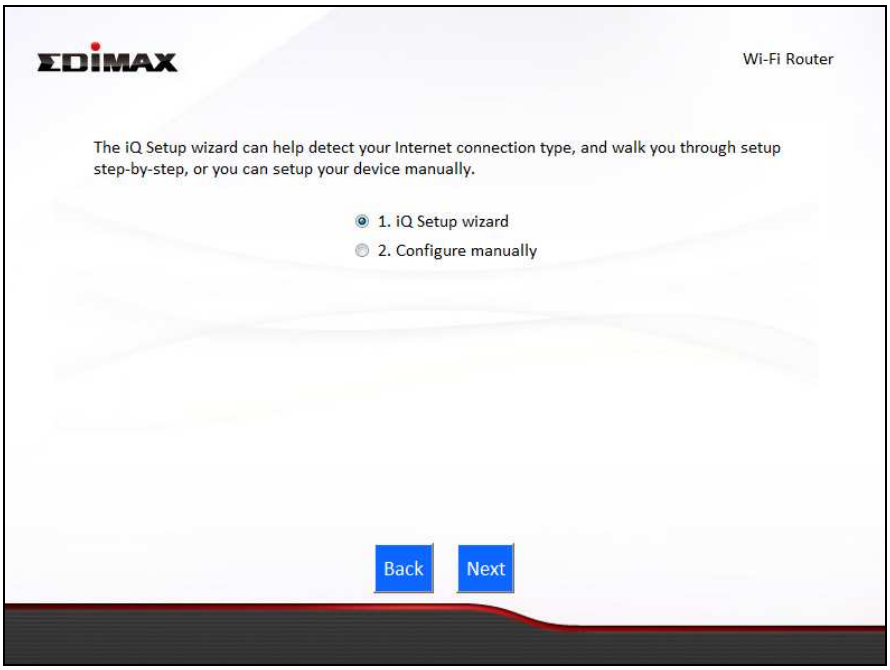
The device's five available modes are outlined below:

Wi-Fi Router Mode	*The device connects to your **modem** and provides 2.4GHz Internet (wireless and Ethernet) access for your network devices.*
Access Point Mode	*The device connects to an existing **router** via Ethernet cable and provides 2.4GHz Internet (wireless and Ethernet) access for your network devices.*
Range Extender Mode	*The device connects wirelessly to your existing 2.4GHz network and repeats the wireless signal(s).*
Wireless Bridge Mode	*The device connects to a network device for example: TV, gaming console, or media player via Ethernet cable and acts as a wireless receiver, allowing the network device to join your Wi-Fi network.*
WISP Mode	*The device connects wirelessly to your Wireless Internet Service Provider and provides 2.4GHz Internet (wireless and Ethernet) access for your network devices.*

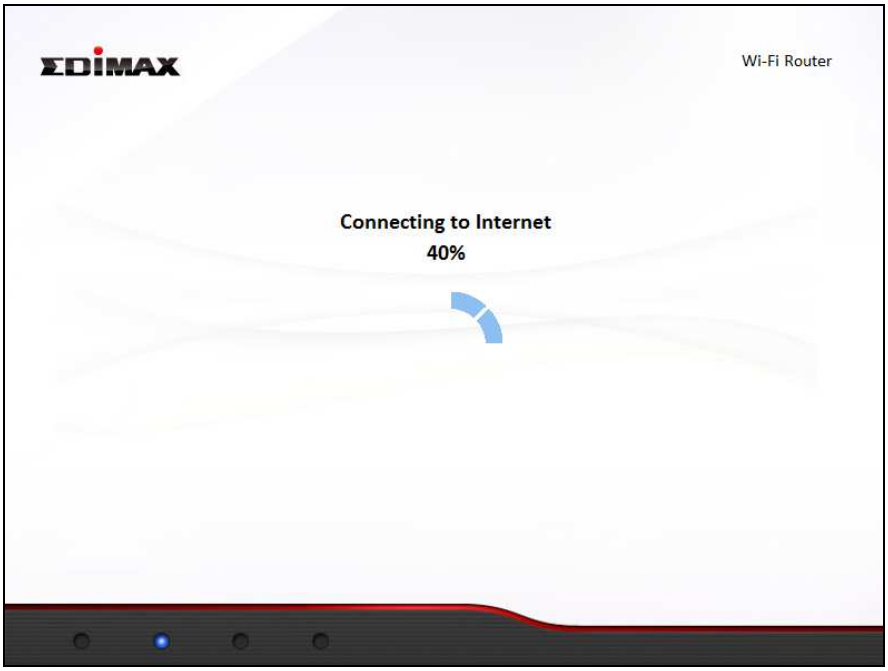
II-1. Wi-Fi Router Mode

1. Select whether to use the iQ Setup wizard (recommended) to detect your Internet connection type, or enter the settings manually.

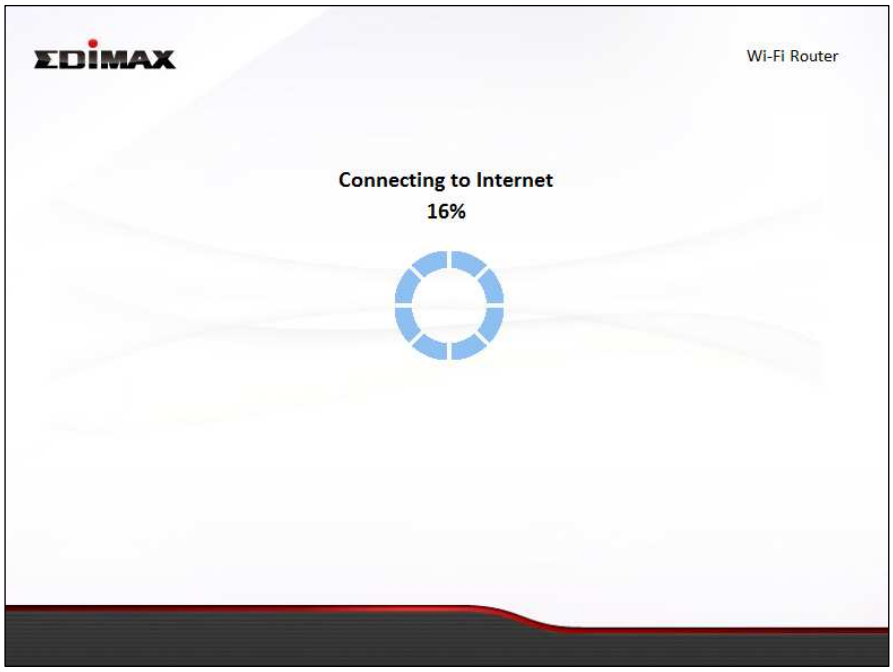
Manual configuration is only recommended for advanced users.



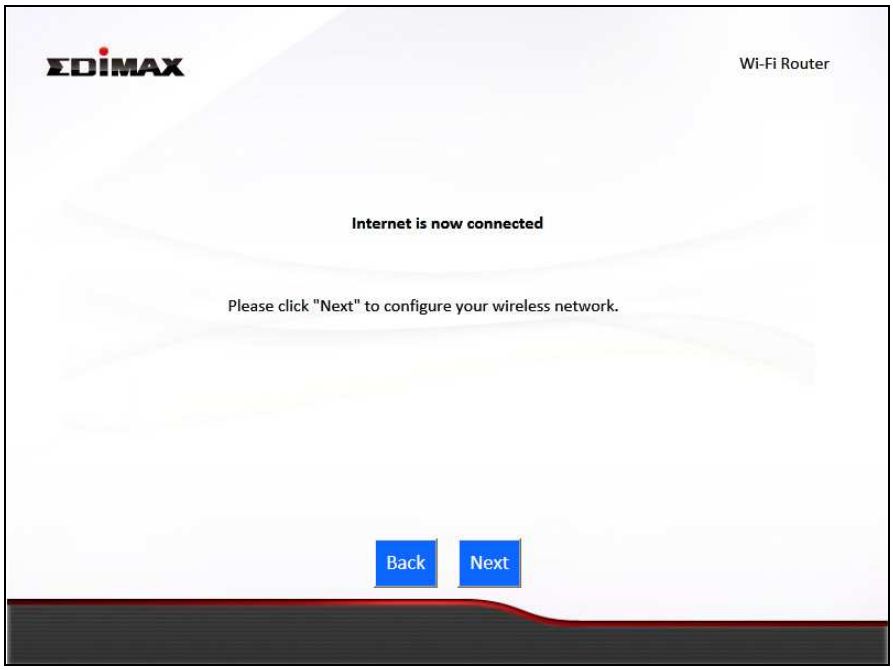
2. Connect the Internet port of your device to the LAN port of your modem using an Ethernet cable, and then click “Next”.



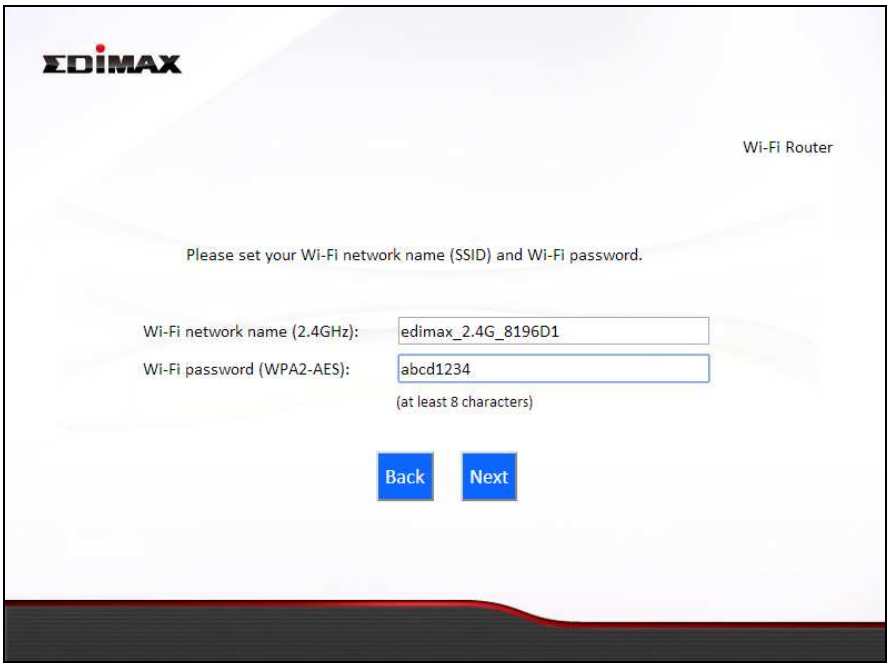
3. Please wait a moment while the device tests the connection.



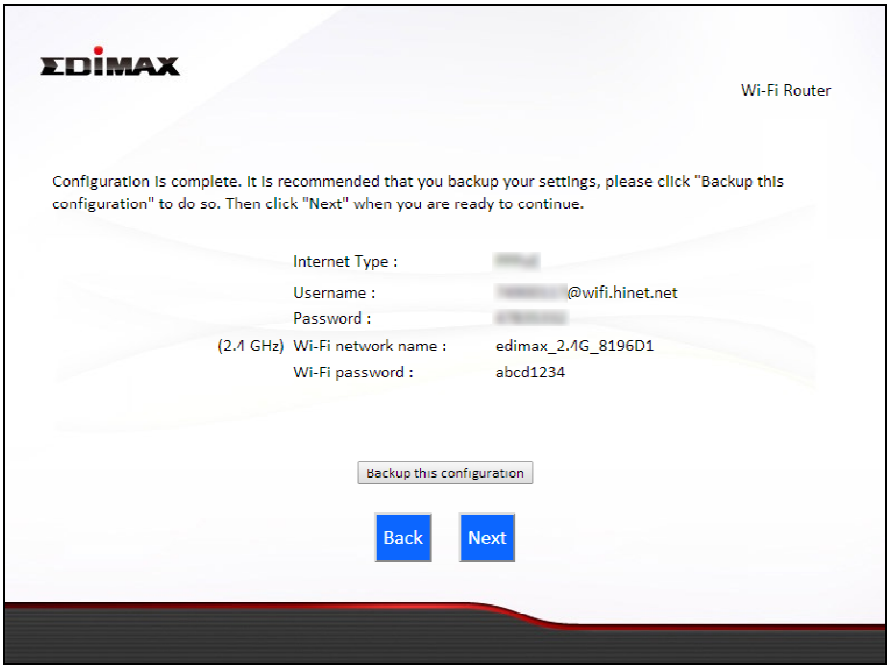
4. Click “Next” to continue and configure the device’s wireless network.



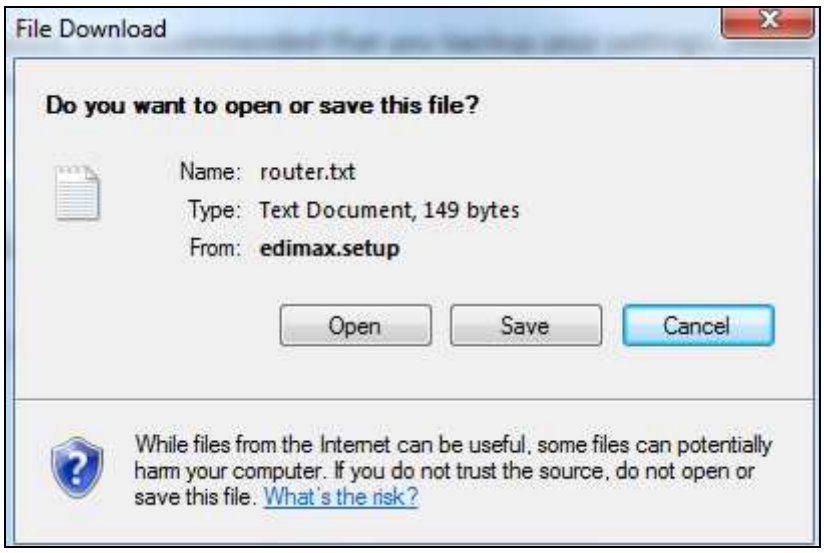
5. Enter a name and password for your 2.4GHz wireless network, then click “Next” to continue.



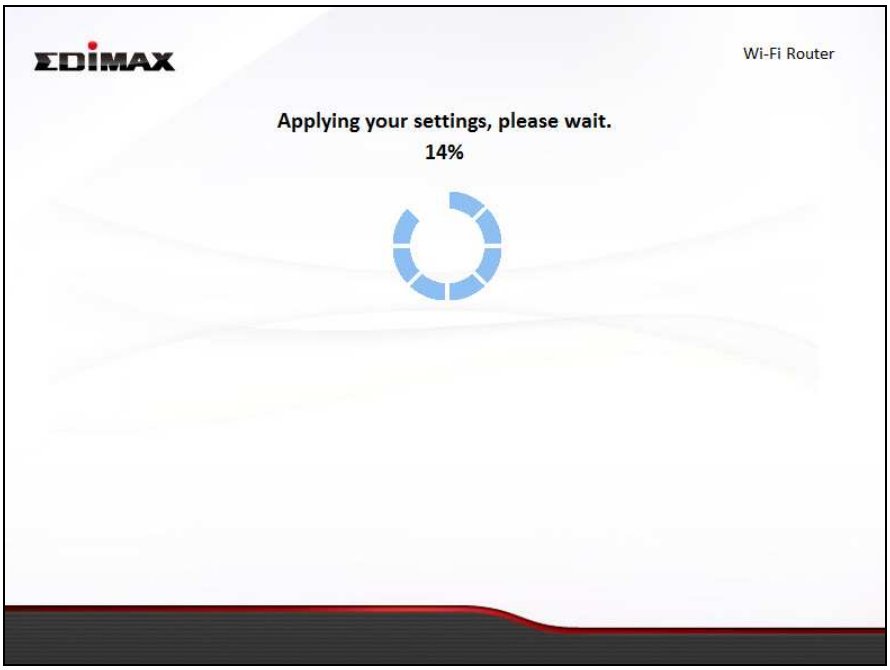
6. A summary of your configuration will be displayed, as shown below depending on your Internet type. Check that all of the details are correct and then click "Next" to proceed.



If you wish to backup the device's settings, click "Backup this configuration" to open a new window and save your current configuration to a .txt file.



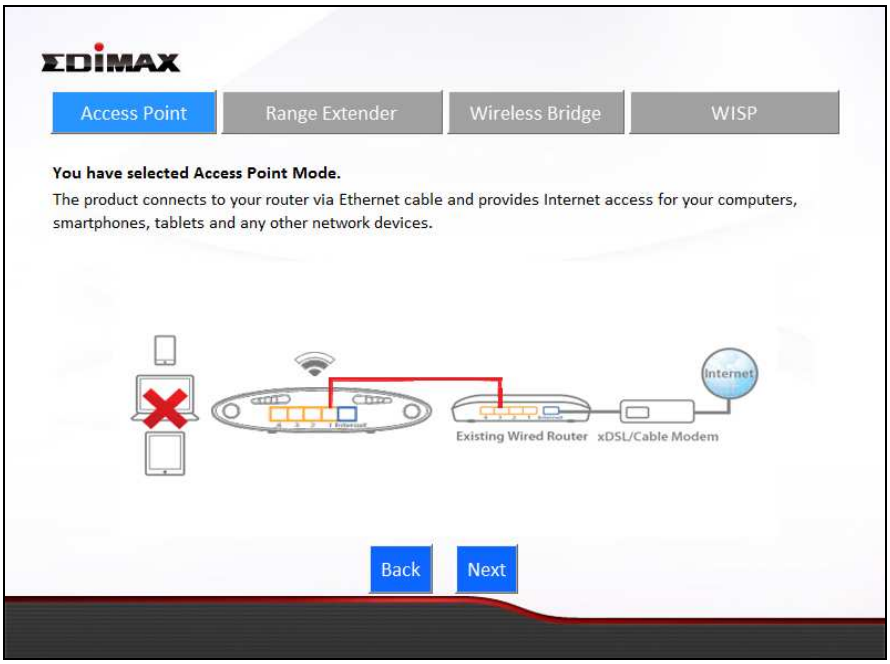
7. Please wait while the device applies your settings.



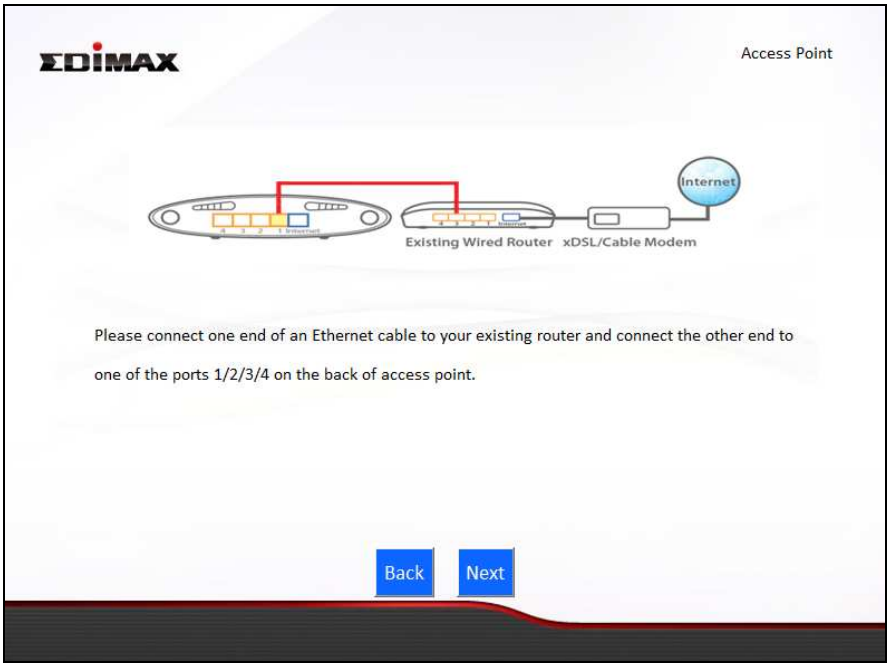
8. A final congratulations screen will indicate that setup is complete. You can now connect to the device's new SSID(s) which are shown on the screen then close the browser window.

II-2. Access Point Mode

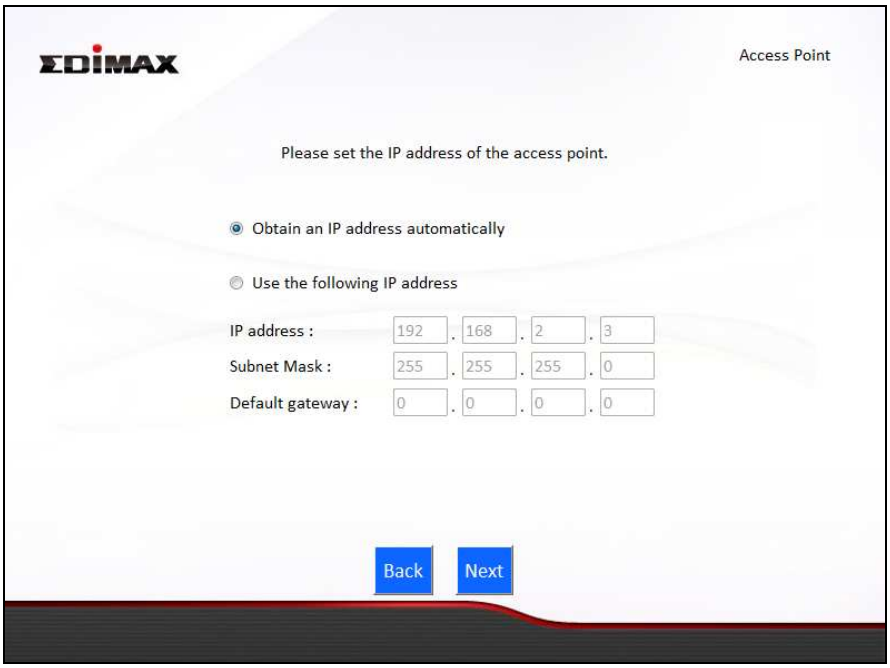
1. Select “Access Point” from the top menu and click “Next”.



2. Connect the LAN port of your BR-6428nS V3/BR-6228nS V3 to the LAN port of your existing router using an Ethernet cable, then click “Next”.

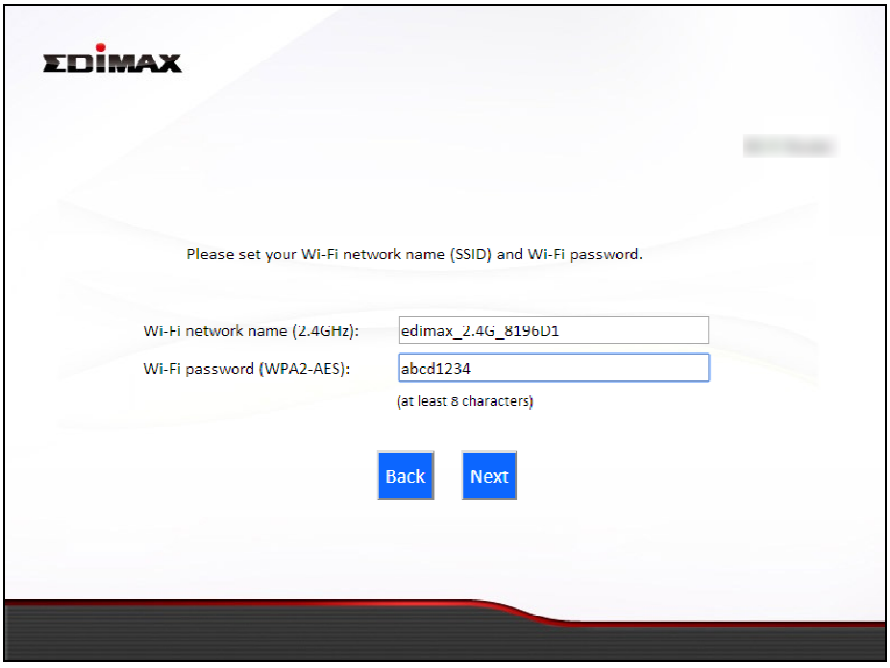


3. Select “Obtain an IP address automatically” or “Use the following IP address” for your BR-6428nS V3/BR-6228nS V3. If you are using a static IP, enter the IP address, subnet mask and default gateway. Click “Next” to proceed to the next step.

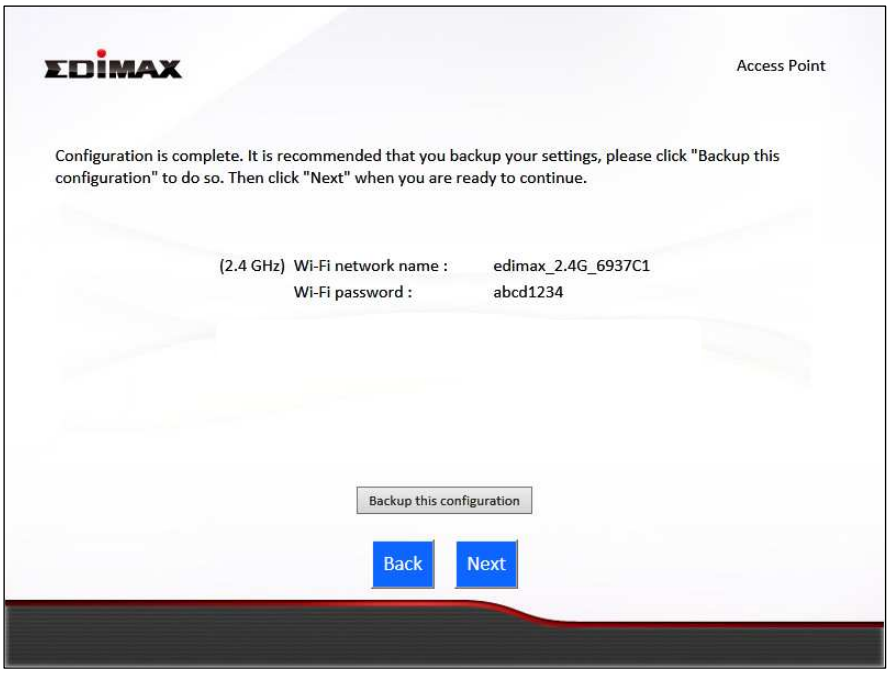


"Obtain an IP address automatically" is the recommended setting for most users. For more guidance on static IP addresses, please refer to IV-1. Configuring your IP address.

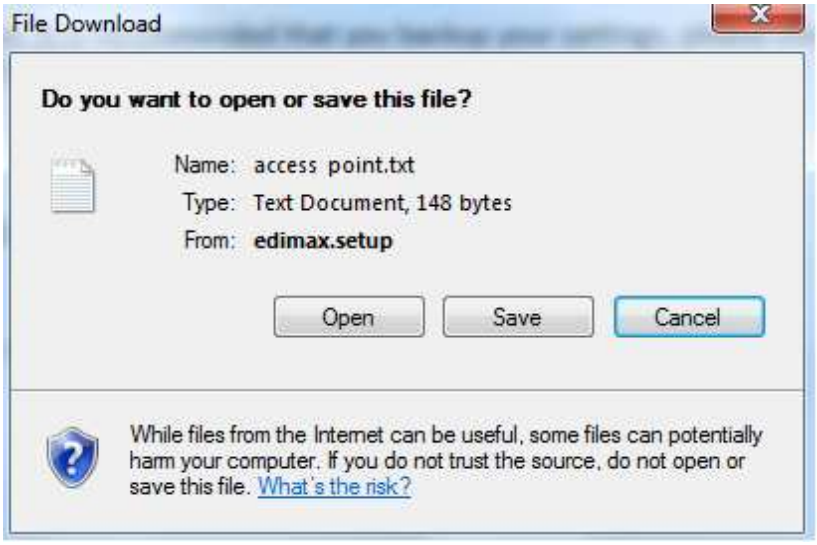
4. Enter a name and password for your 2.4GHz wireless network, then click "Next" to continue.



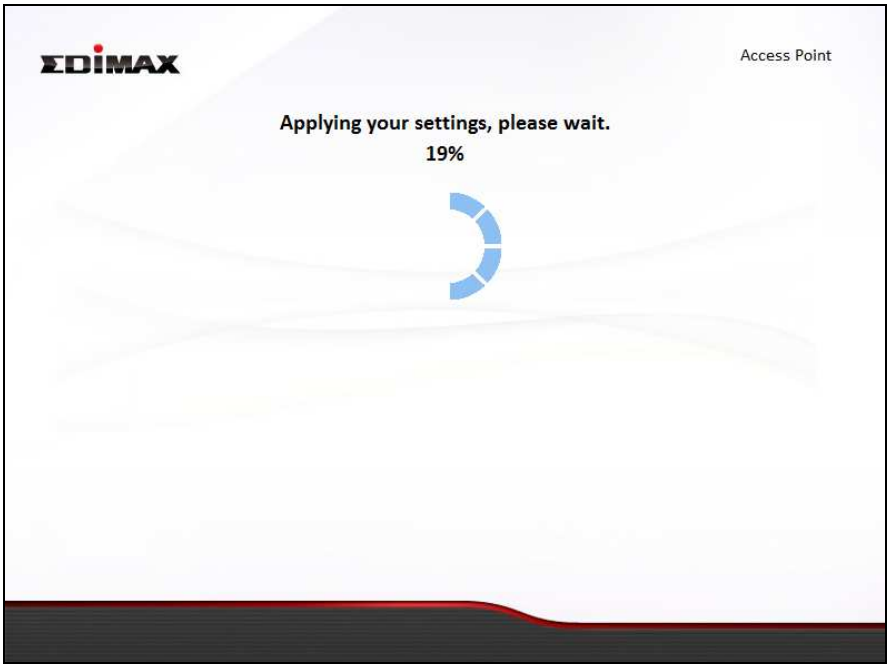
5. A summary of your configuration will be displayed, as shown below. Check that all of the details are correct and then click "Next" to proceed.



If you wish to backup the device's settings, click "Backup this configuration" to open a new window and save your current configuration to a .txt file.



6. Please wait a moment until the BR-6428nS V3/BR-6228nS V3 is ready.

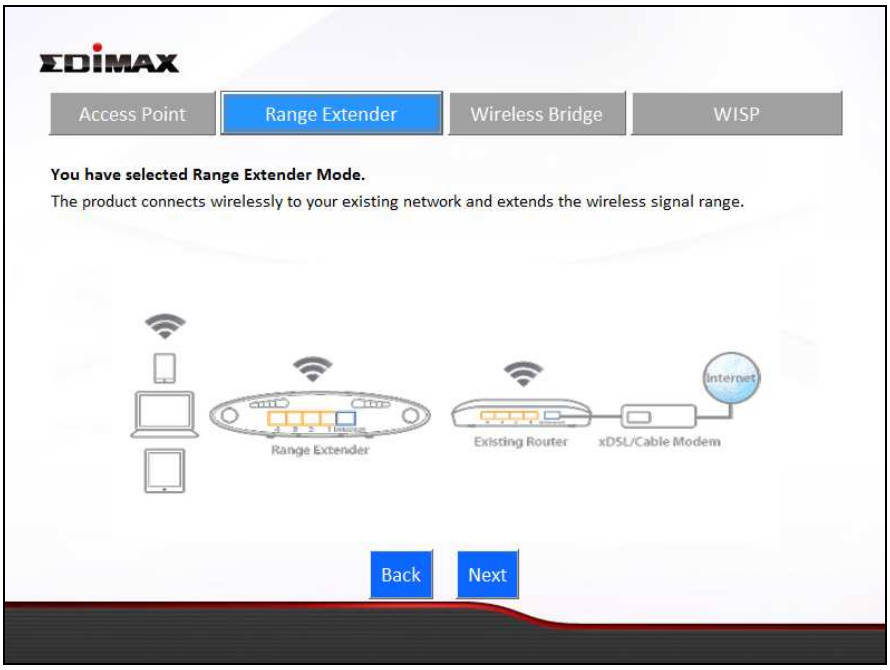


8. A final congratulations screen will indicate that setup is complete. You can now connect to the device's new SSID(s) which are shown on the screen then close the browser window.

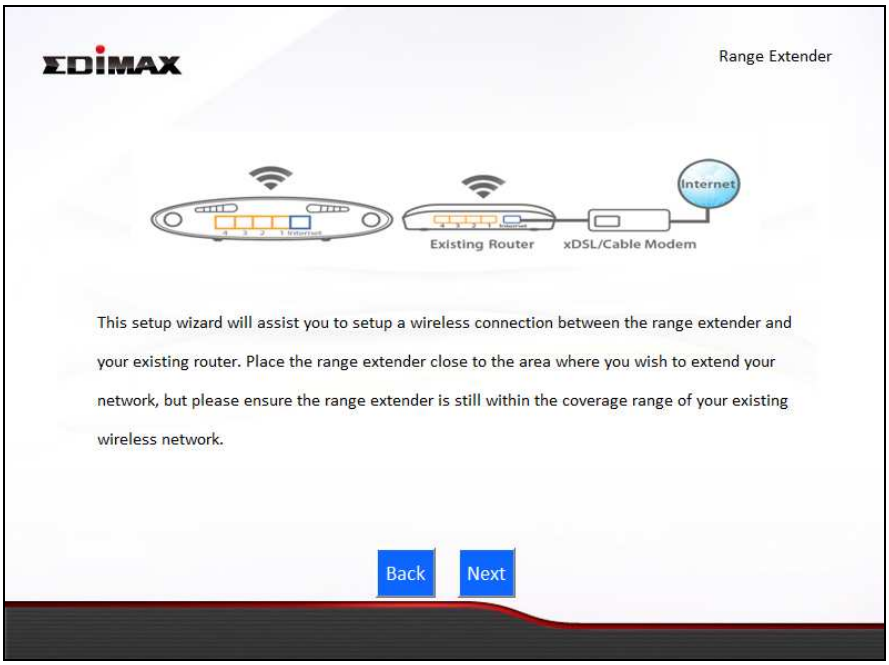
9. The BR-6428nS V3/BR-6228nS V3 is working and ready for use. Refer to **IV-2. Connecting to a Wi-Fi network** if you require more guidance.

II-3. Range Extender Mode

1. Select “Range Extender” from the top menu and click “Next”.

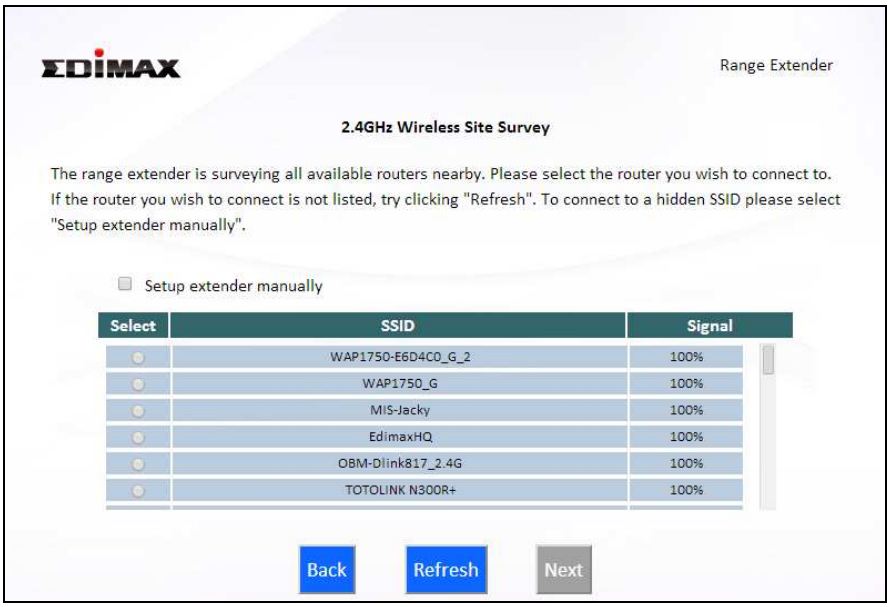


2. Please ensure your BR-6428nS V3/BR-6228nS V3 is within Wi-Fi range of your existing wireless router. Click “Next” to continue.

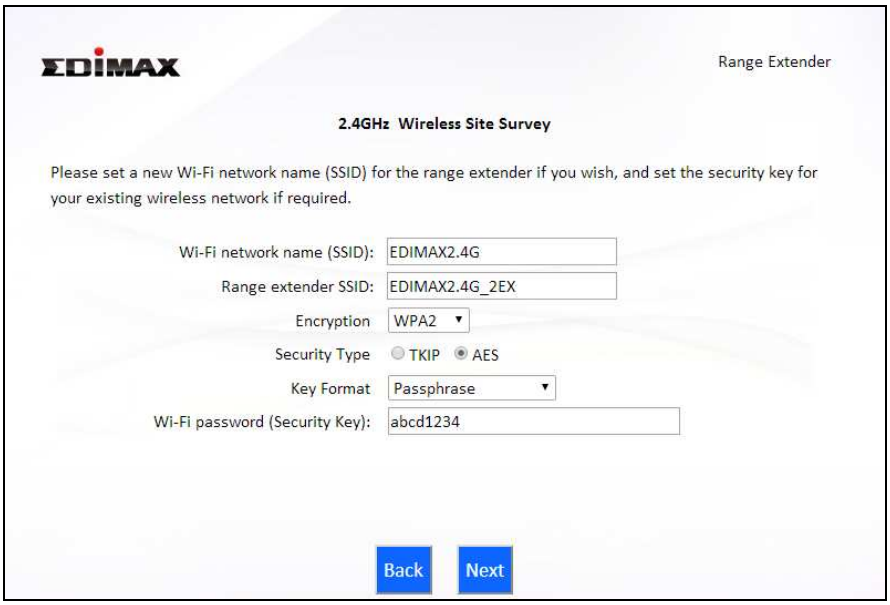


3. Select the Wi-Fi network name (SSID) which you wish to connect to for the specified frequency and click “Next” to continue.

If the Wi-Fi network you wish to connect to does not appear, try clicking “Refresh”.



To connect to a hidden SSID, check the "Setup extender manually" box and enter the details manually on the next page, as shown below.

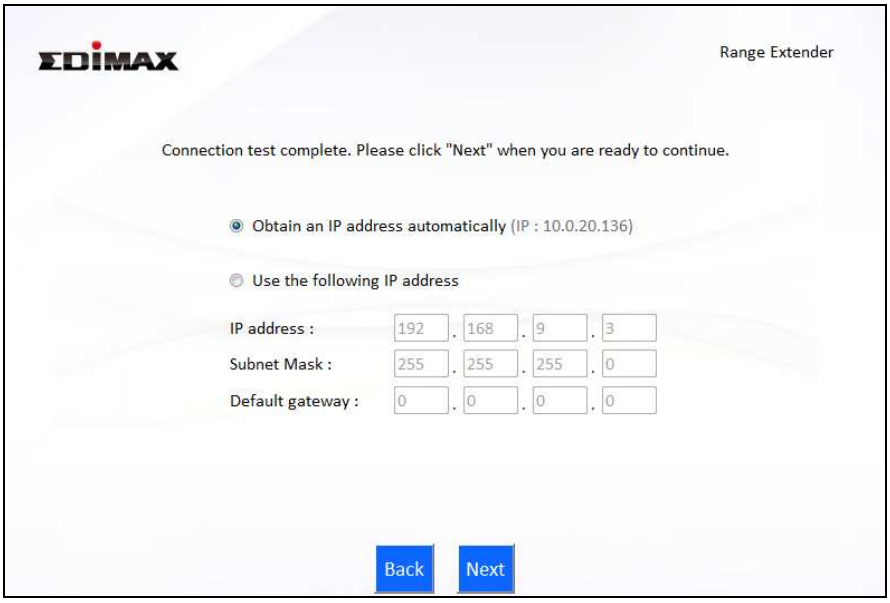


4. Enter your existing wireless network's security key/password in the "Security Key" field and click "Next" to continue.

5. Wait a moment while the BR-6428nS V3/BR-6228nS V3 tests the wireless connection.

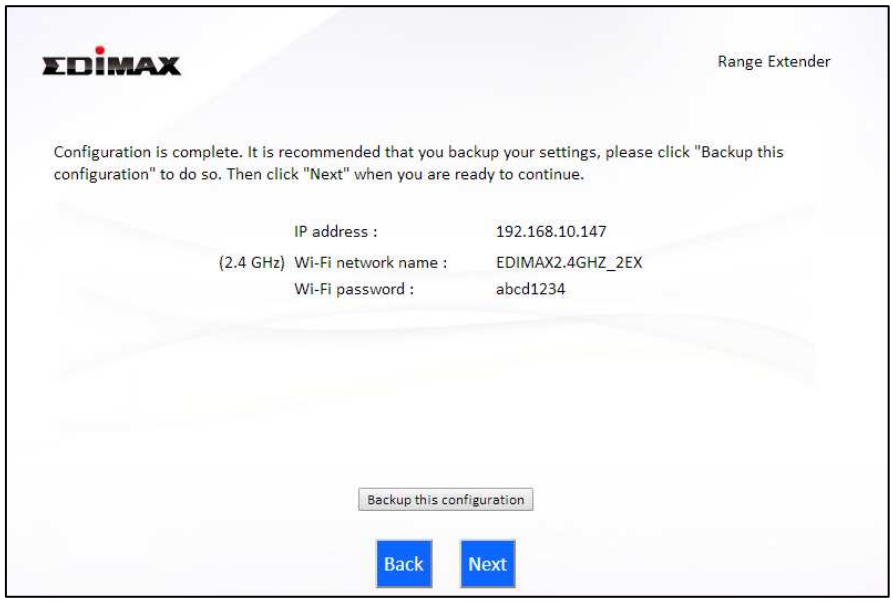
6. Select “Obtain an IP address automatically” or “Use the following IP address” for your BR-6428nS V3/BR-6228nS V3. If you are using a static IP, enter the IP address, subnet mask and default gateway. Click “Next” to proceed to the next step.

“Obtain an IP address automatically” is the recommended setting for most users. The IP address will be displayed in brackets.

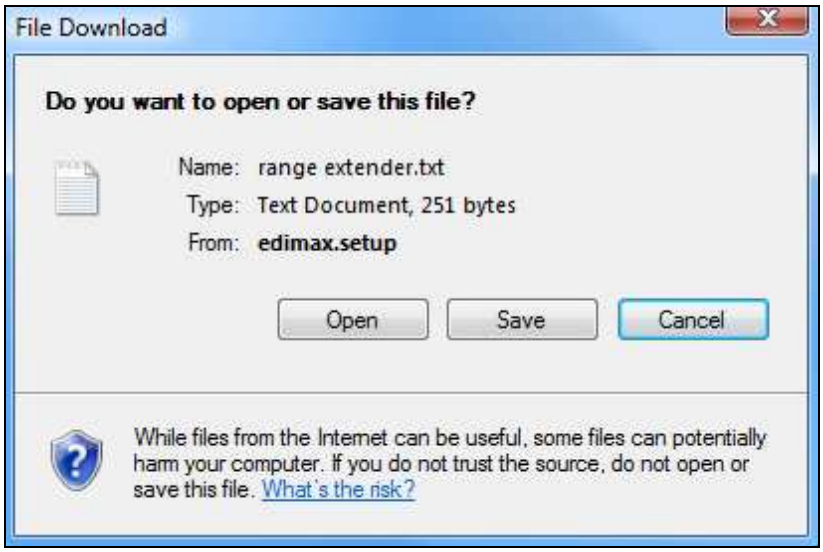


7. A summary of your configuration will be displayed, as shown below. Check that all of the details are correct and then click “Next” to proceed.

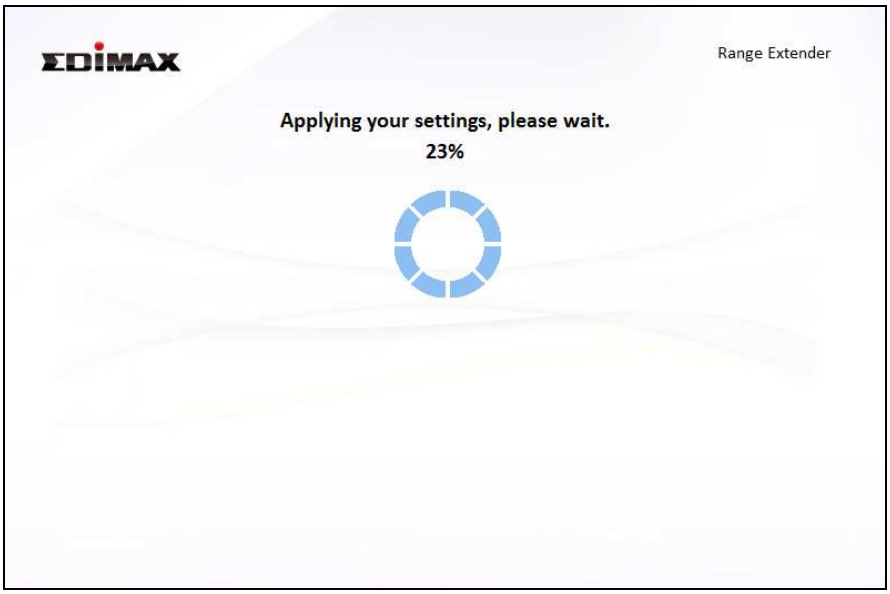
The device will use the same wireless password/security key as the existing wireless network.



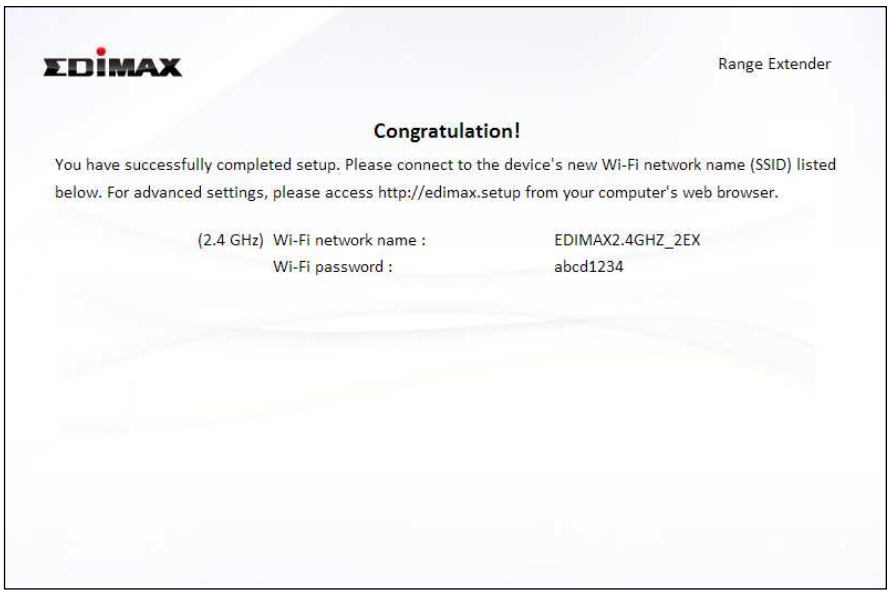
If you wish to backup the BR-6428nS V3/BR-6228nS V3’s settings, click “Backup this configuration” to open a new window and save your current configuration to a .txt file.



8. Please wait a moment until the BR-6428nS V3/BR-6228nS V3 is ready.



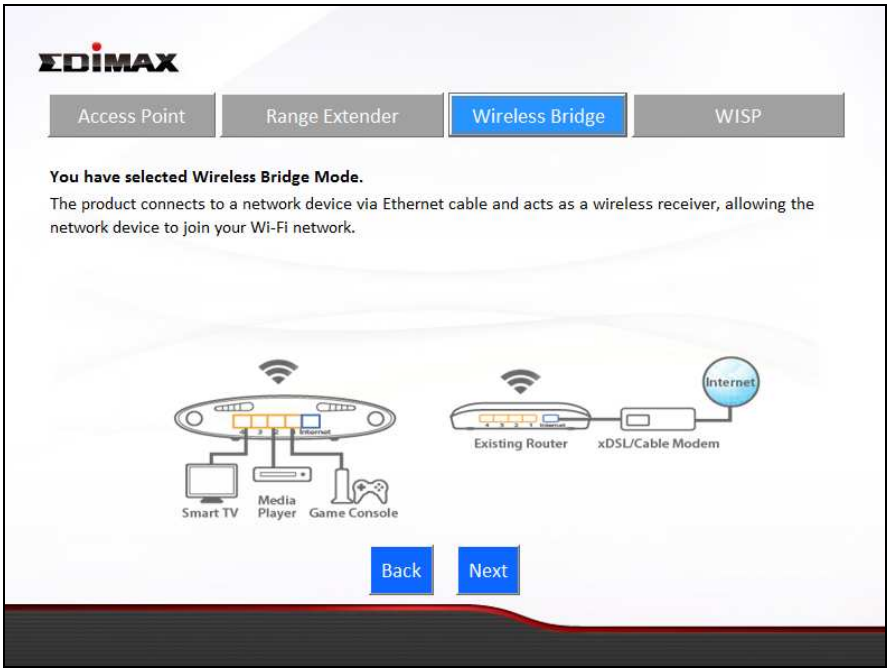
9. A final congratulations screen will indicate that setup is complete. You can now connect to the device's new SSID(s) which are shown on the screen then close the browser window.



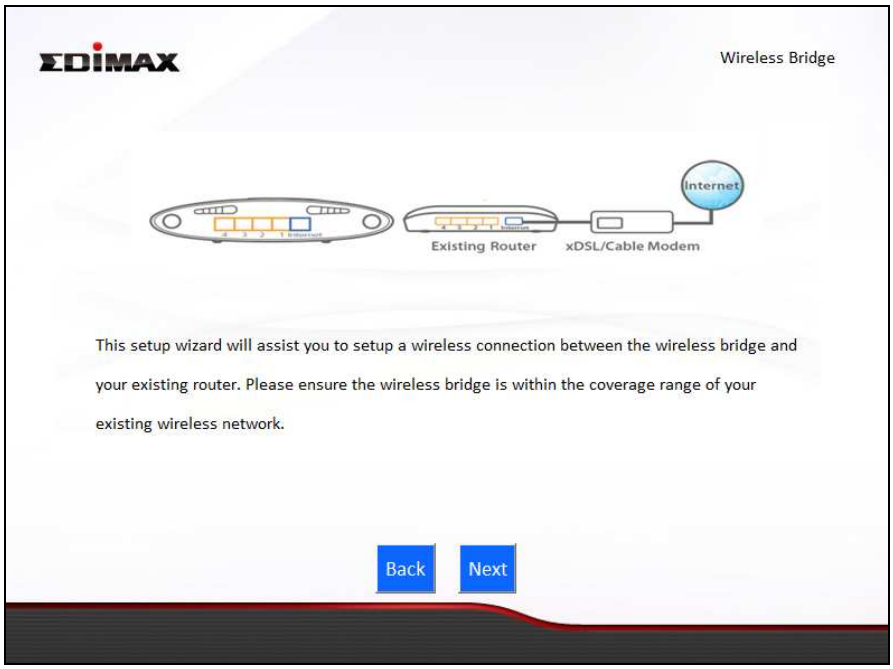
10. The BR-6428nS V3/BR-6228nS V3 is working and ready for use. Refer to **IV-2. Connecting to a Wi-Fi network** if you require more guidance.

II-4. Wireless Bridge Mode

1. Select “Wireless Bridge” from the top menu and click “Next”.

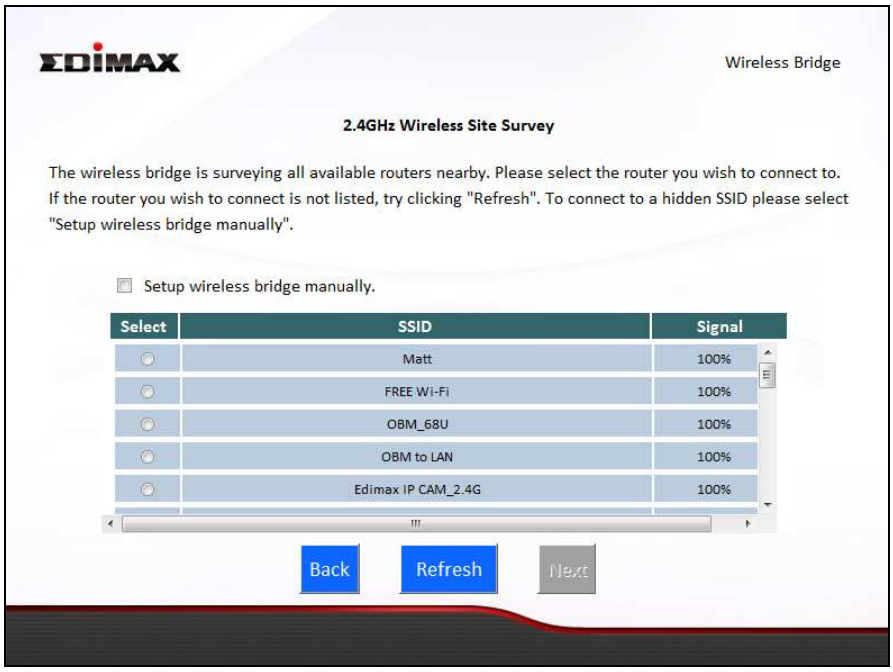


2. Please ensure your BR-6428nS V3/BR-6228nS V3 is within Wi-Fi range of your existing wireless router. Click “Next” to continue.

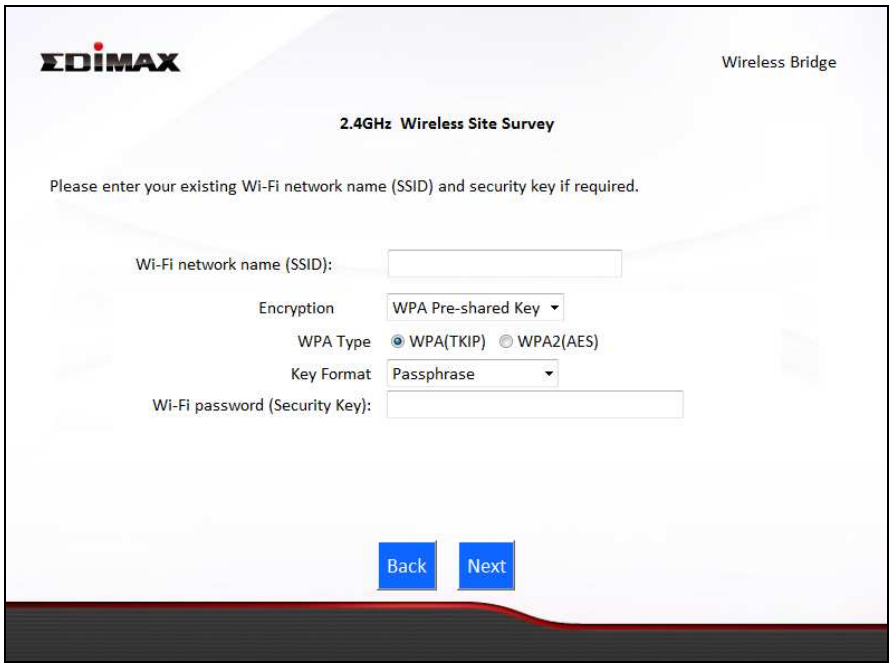


3. Select the Wi-Fi network name (SSID) which you wish to connect to and click “Next” to continue.

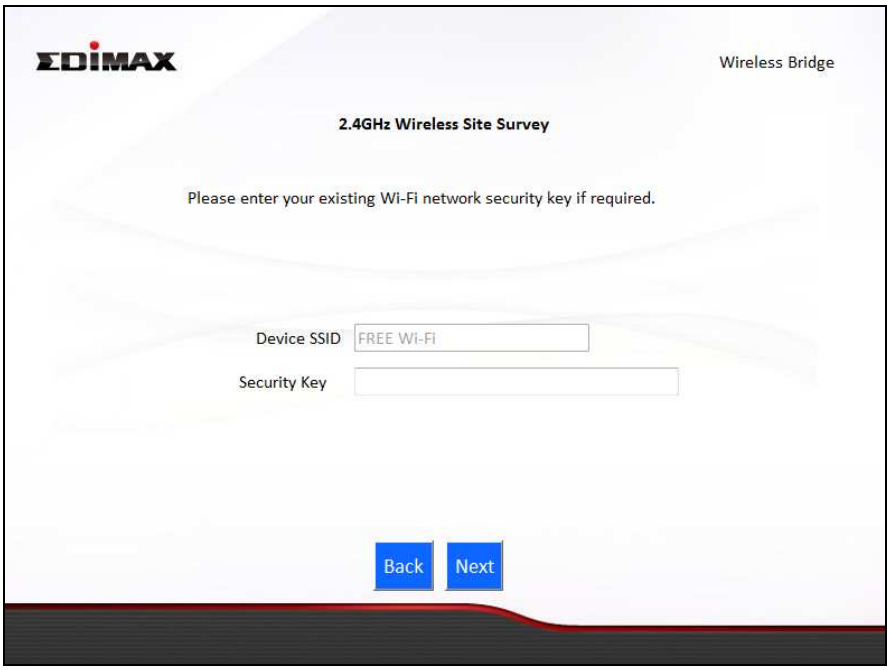
If the Wi-Fi network you wish to connect to does not appear, try clicking "Refresh".



To connect to a hidden SSID, check the "Setup extender manually" box and enter the details manually on the next page, as shown below.



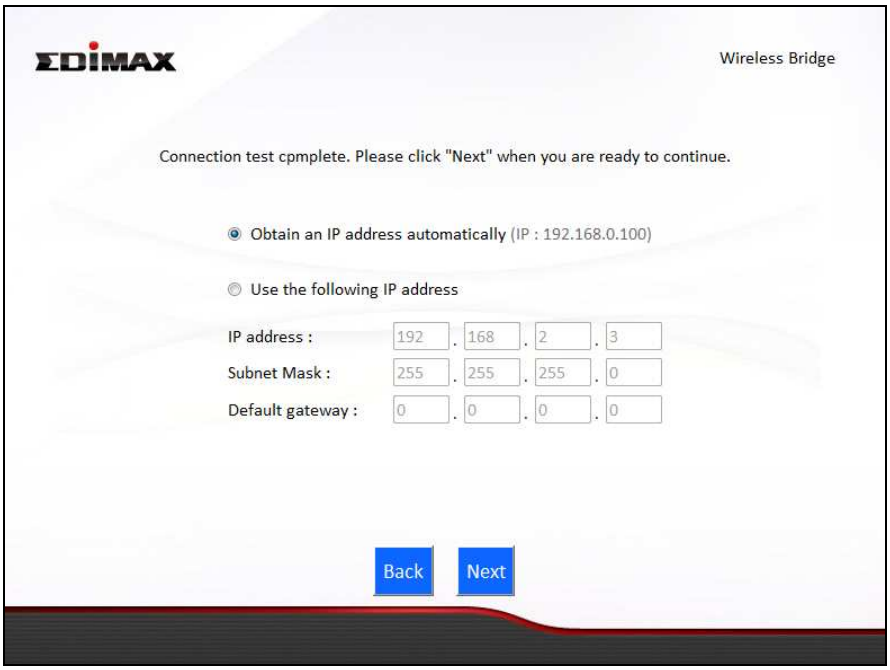
4. Enter your existing wireless network's security key/password in the "Security Key" field and click "Next" to continue.



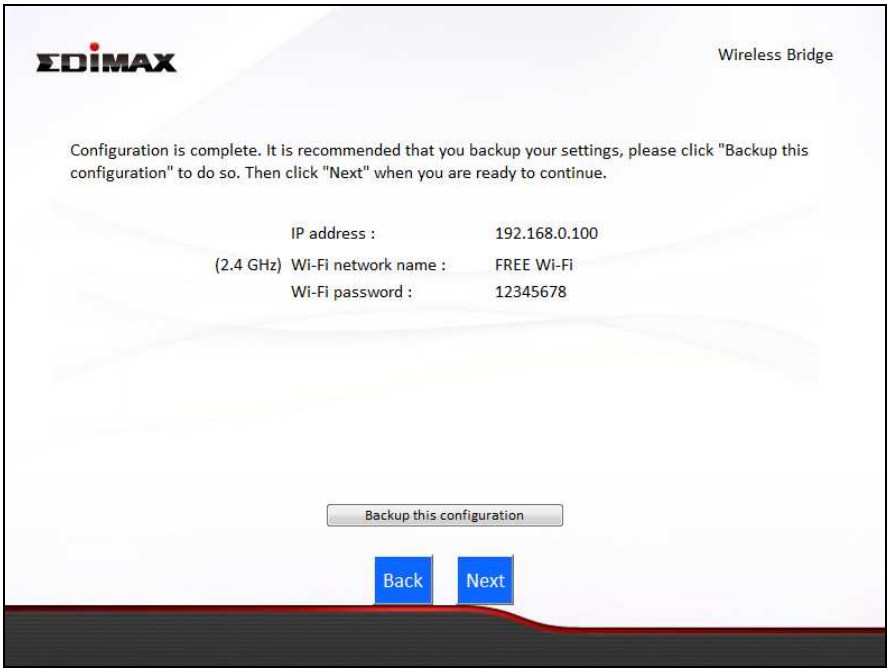
5. Wait a moment while the BR-6428nS V3/BR-6228nS V3 tests the wireless connection.

7. Select “Obtain an IP address automatically” or “Use the following IP address” for your BR-6428nS V3/BR-6228nS V3. If you are using a static IP, enter the IP address, subnet mask and default gateway. Click “Next” to proceed to the next step.

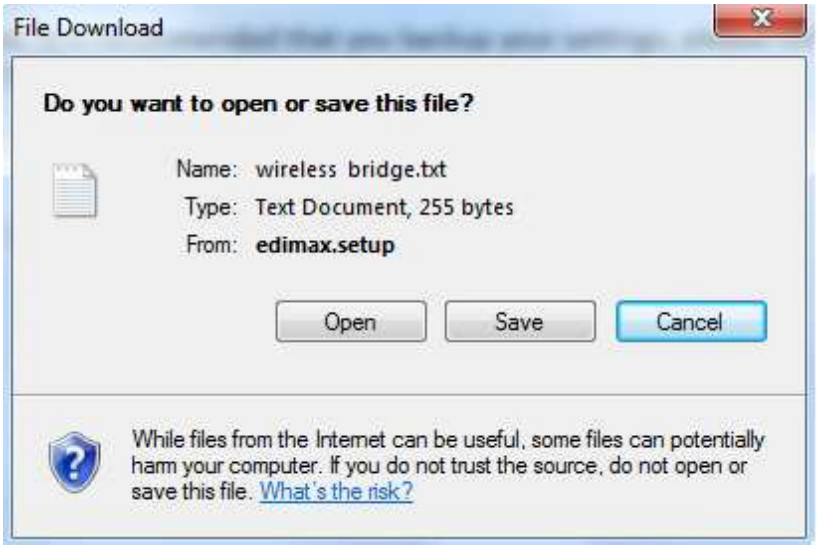
“Obtain an IP address automatically” is the recommended setting for most users. The IP address will be displayed in brackets.



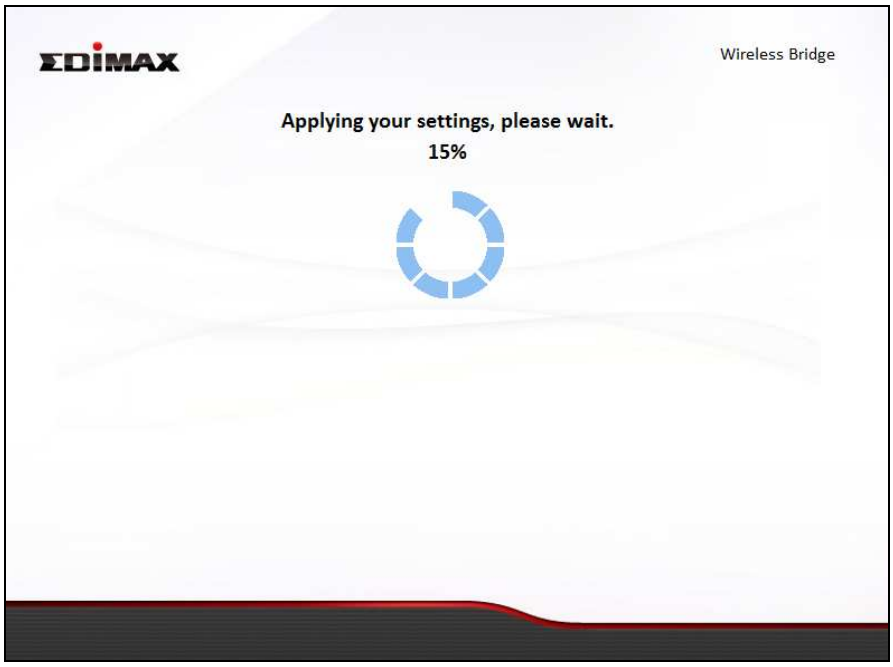
8. A summary of your configuration will be displayed, as shown below. Check that all of the details are correct and then click “Next” to proceed.



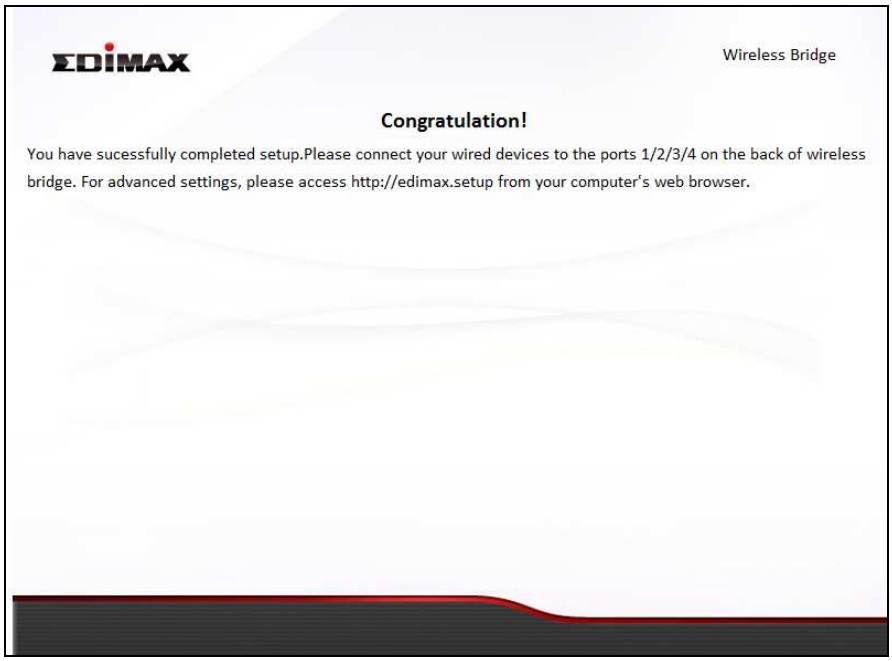
If you wish to backup the BR-6428nS V3/BR-6228nS V3’s settings, click “Backup this configuration” to open a new window and save your current configuration to a .txt file.



9. Please wait a moment until the BR-6428nS V3/BR-6228nS V3 is ready.



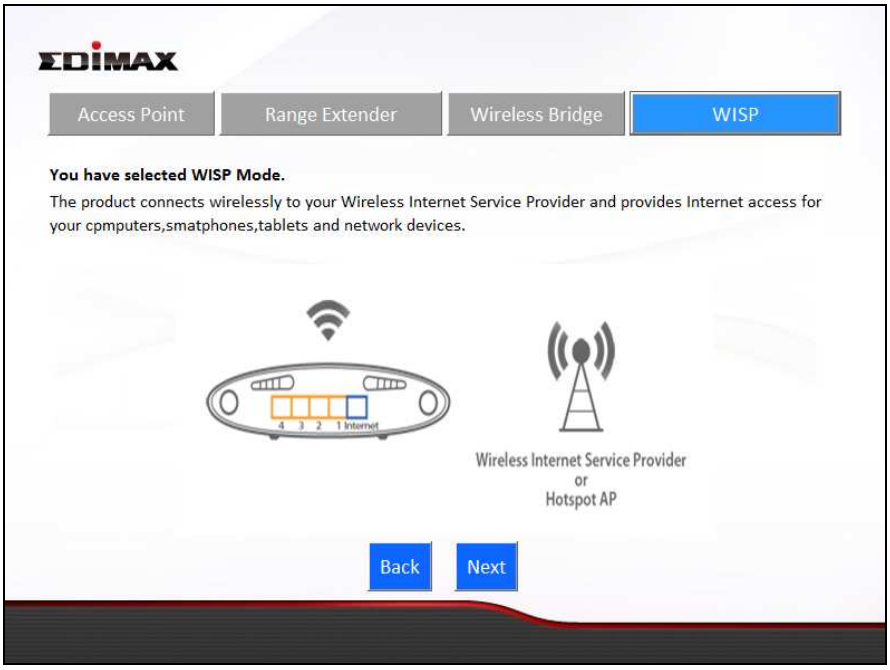
10. A final congratulations screen will indicate that setup is complete. Please close the browser window.



11. The BR-6428nS V3/BR-6228nS V3 is working and ready for use. You can now connect the BR-6428nS V3/BR-6228nS V3 to your network device using an Ethernet cable and connect to your network as usual.

II-5. WISP Mode

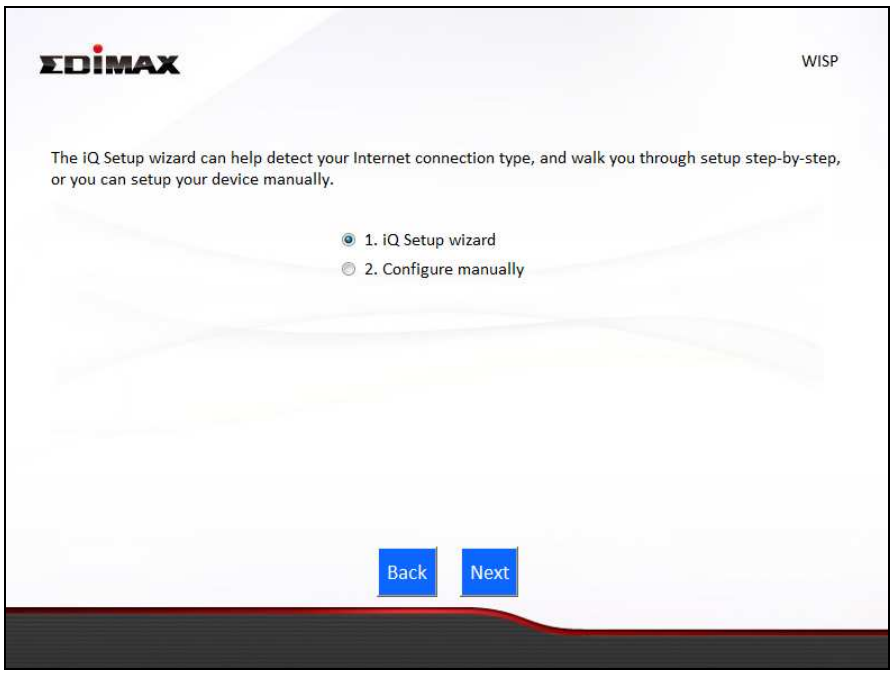
1. Select “WISP” from the top menu and click “Next”.



2. Please ensure your BR-6428nS V3/BR-6228nS V3 is within Wi-Fi range of your WISP network and click “Next” to continue.

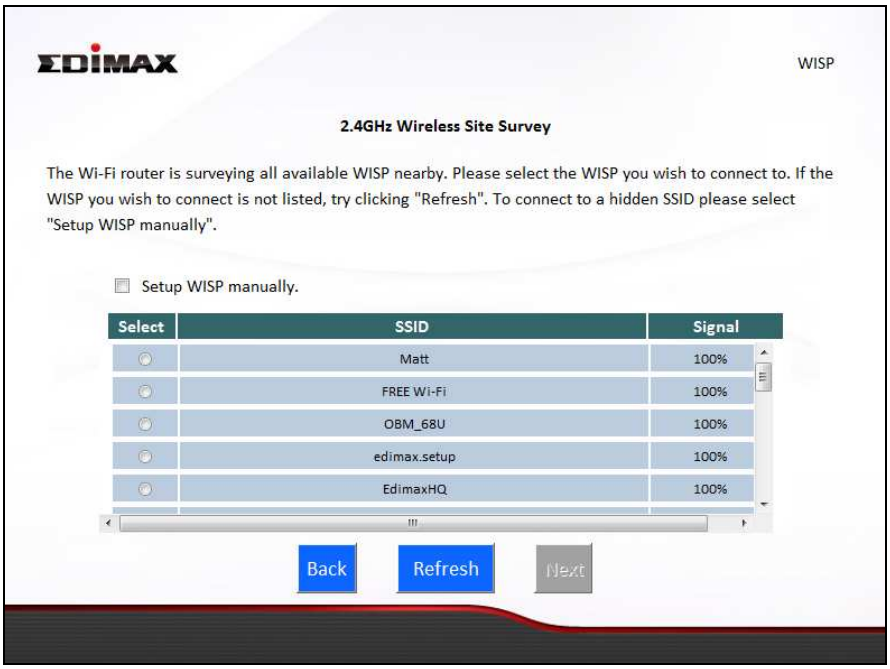
3. Select whether to use the iQ Setup wizard (recommended) to detect your Internet connection type, or enter the settings manually.

Manual configuration is only recommended for advanced users.

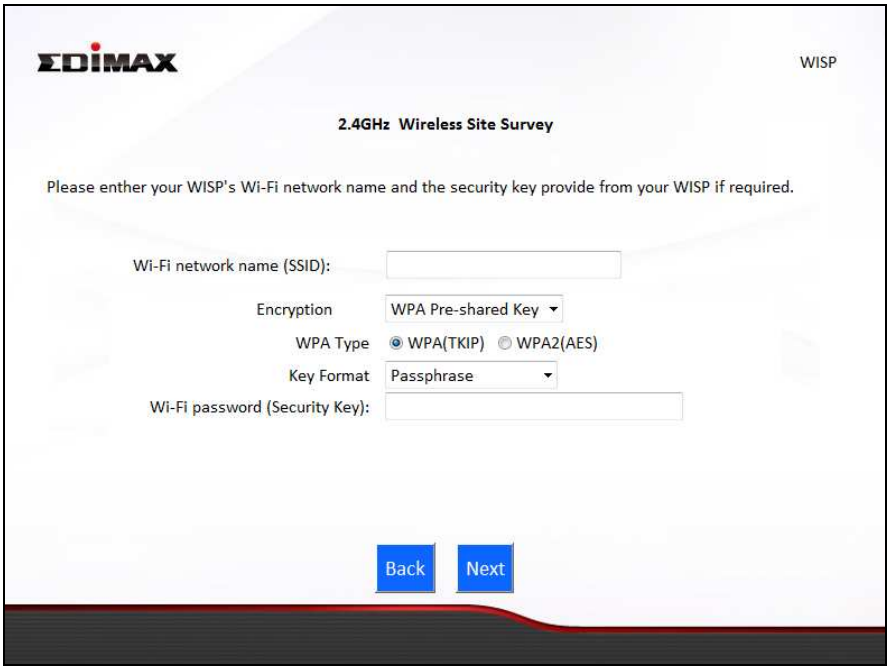


5. Select the WISP SSID which you wish to connect to and click “Next” to continue.

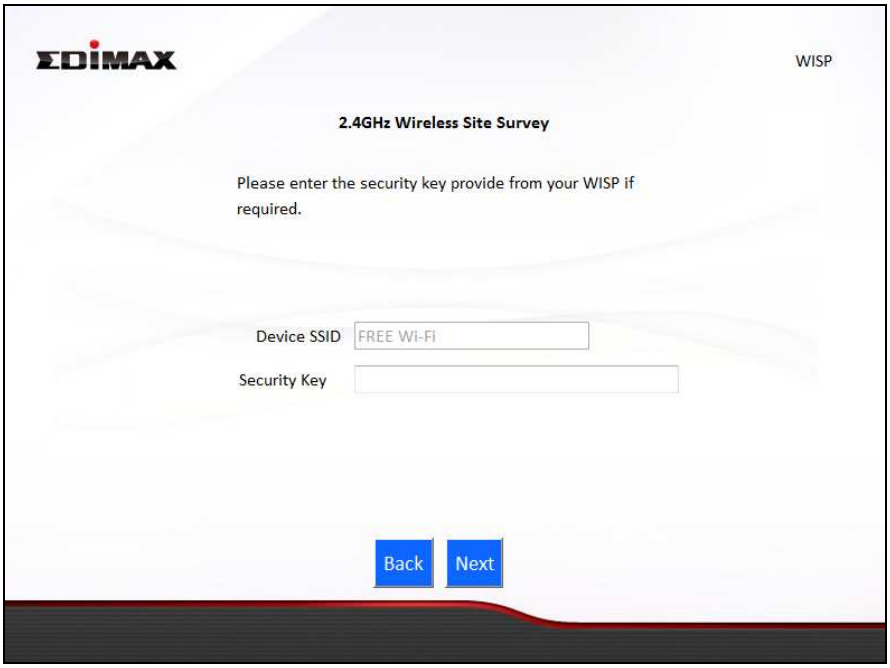
If the Wi-Fi network you wish to connect to does not appear, try clicking “Refresh”.



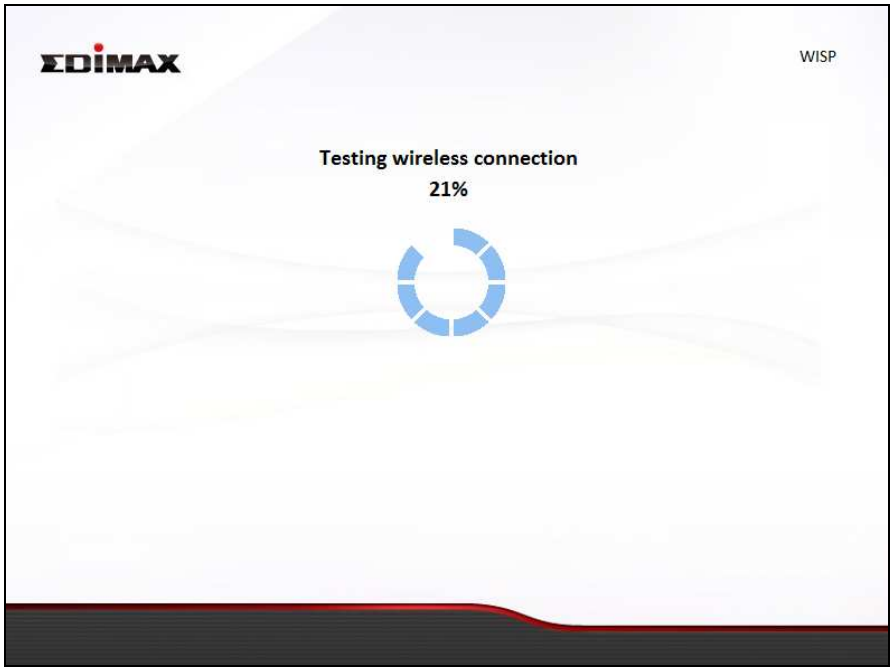
To connect to a hidden SSID, check the "Setup extender manually" box and enter the details manually on the next page, as shown below.



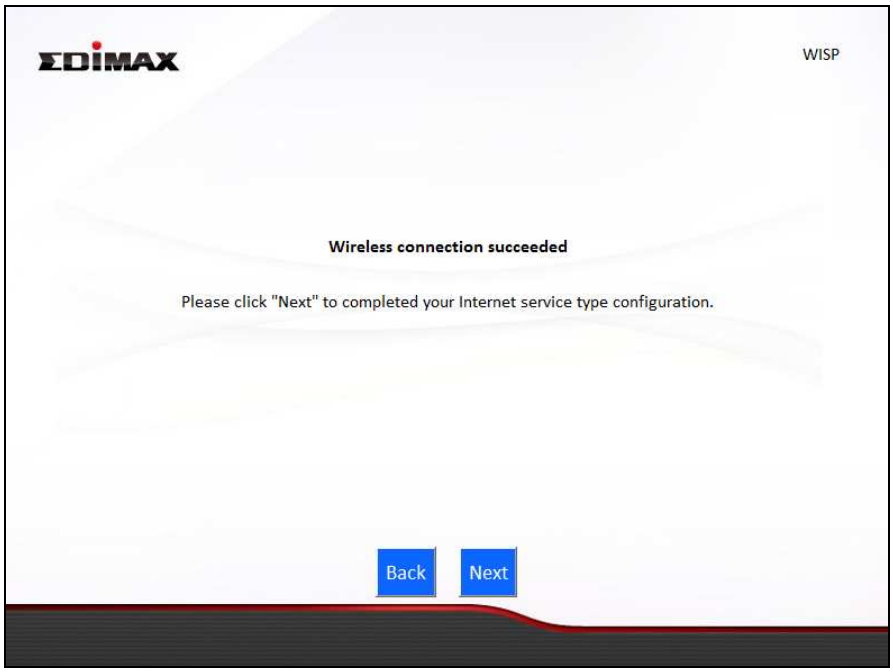
6. Enter your existing wireless network's security key/password in the "Security Key" field and click "Next" to continue.



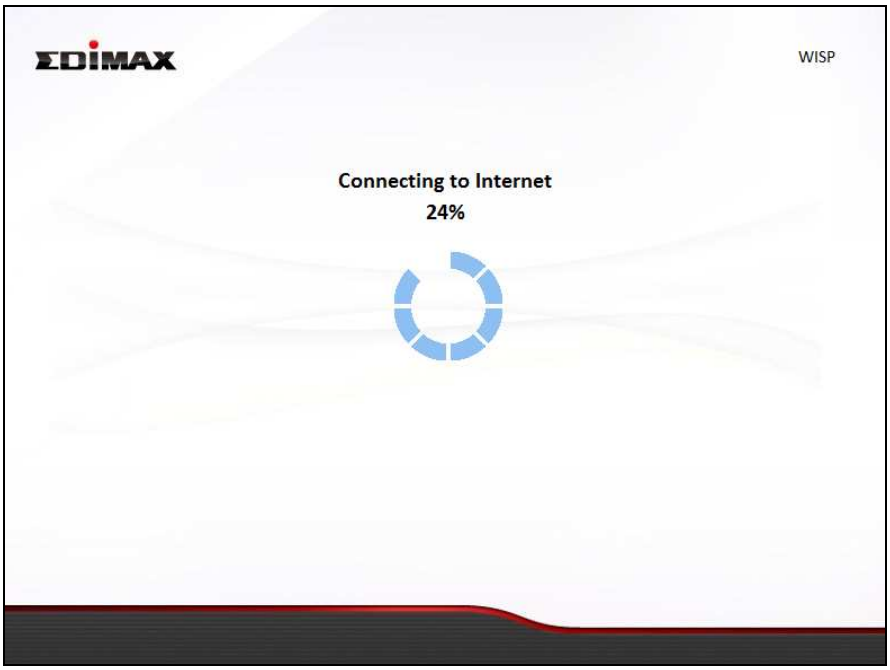
7. Wait a moment while the BR-6428nS V3/BR-6228nS V3 tests the wireless connection.



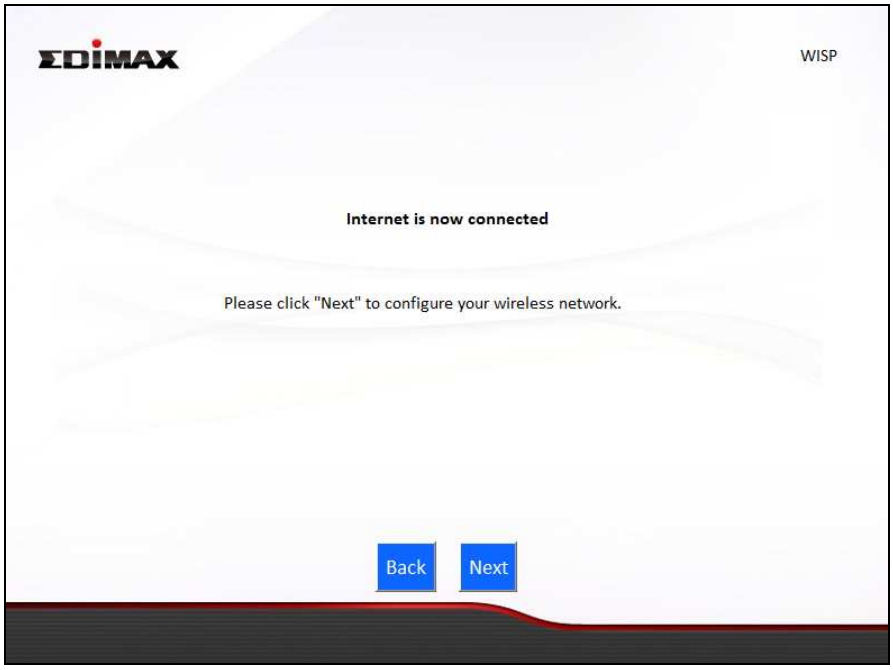
8. Click “Next” to continue your Internet service type configuration.



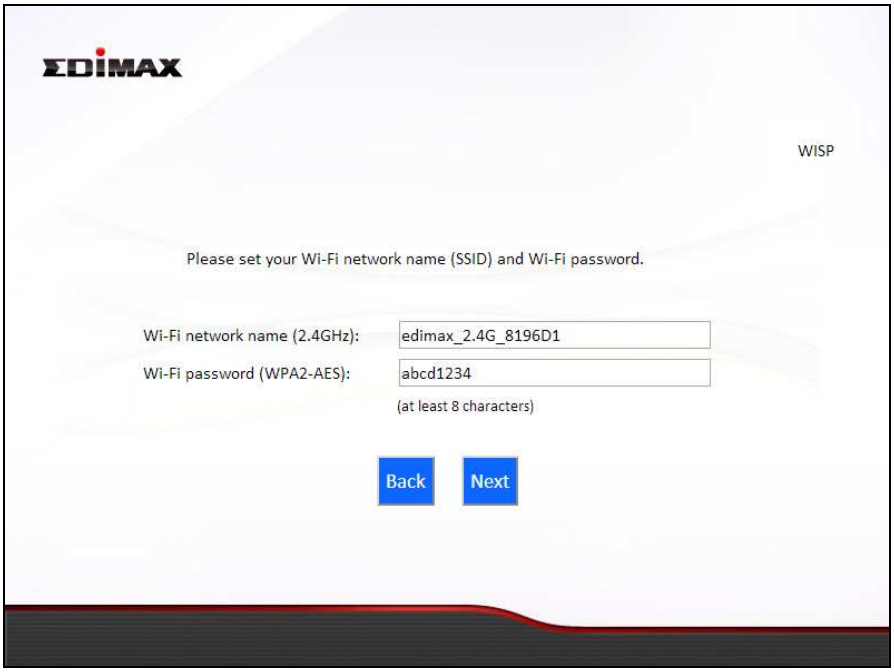
9. Wait a moment while the BR-6428nS V3/BR-6228nS V3 connects to the Internet.



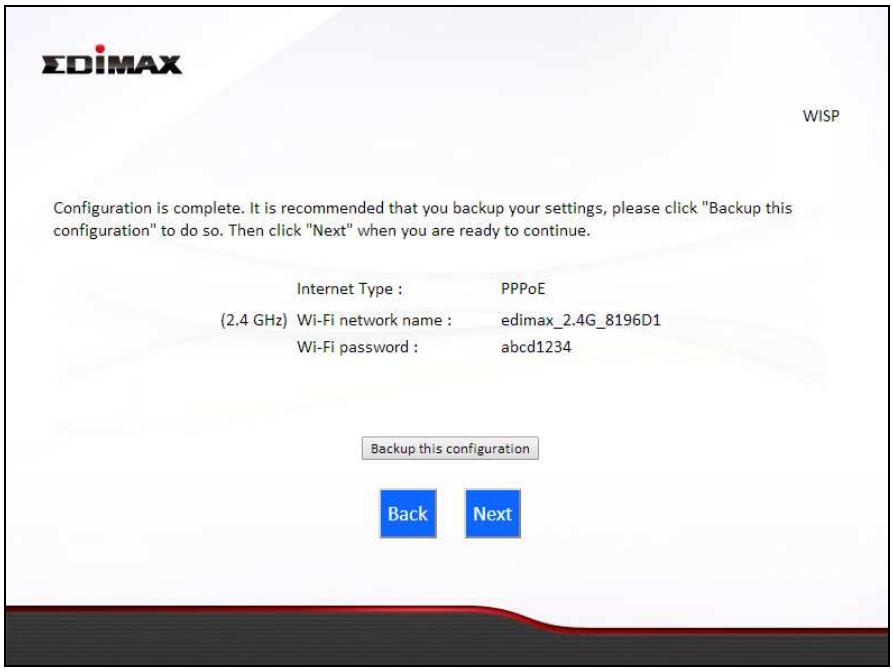
10. When the Internet is connected, click “Next” to configure your wireless network.



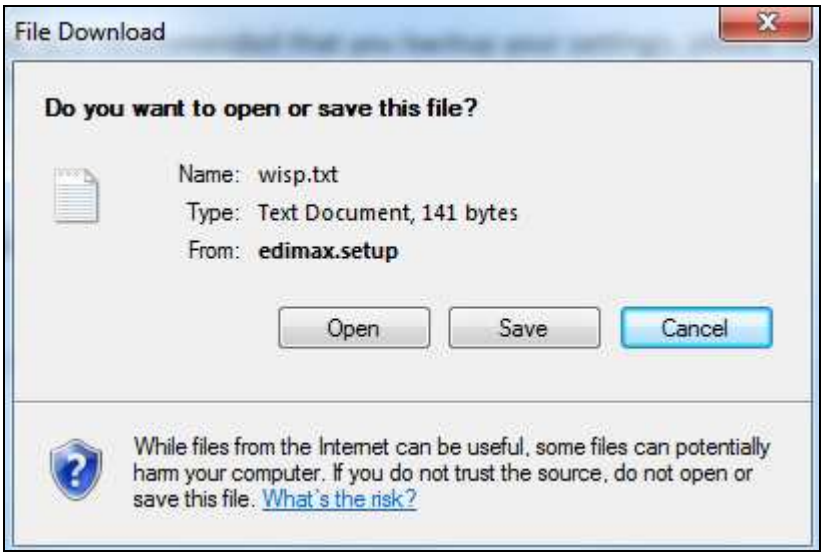
11. Enter a name and password for your 2.4GHz wireless network, then click “Next” to continue.



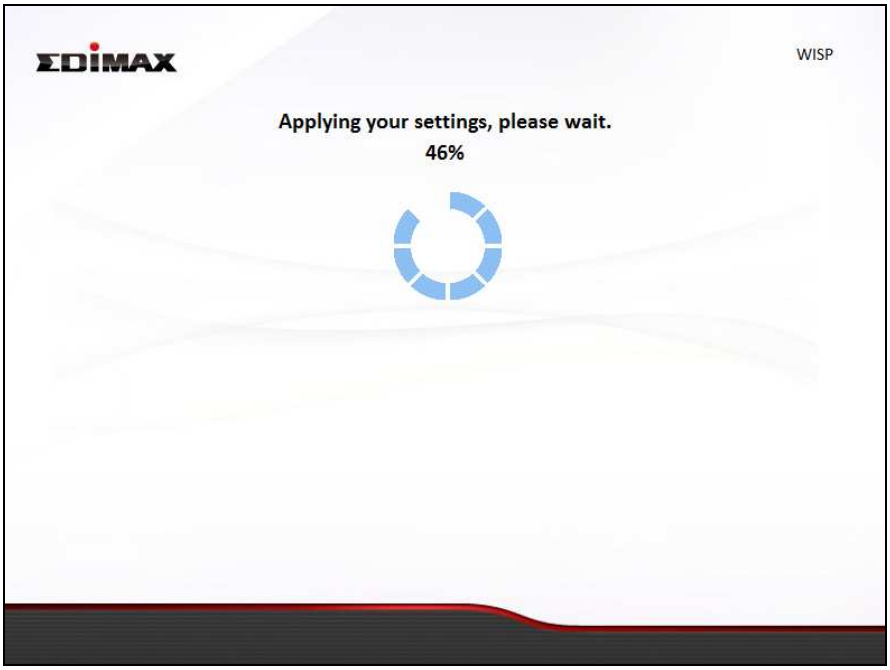
12. A summary of your configuration will be displayed according to your connection type, as shown below. Check that all of the details are correct and then click “Next” to proceed.



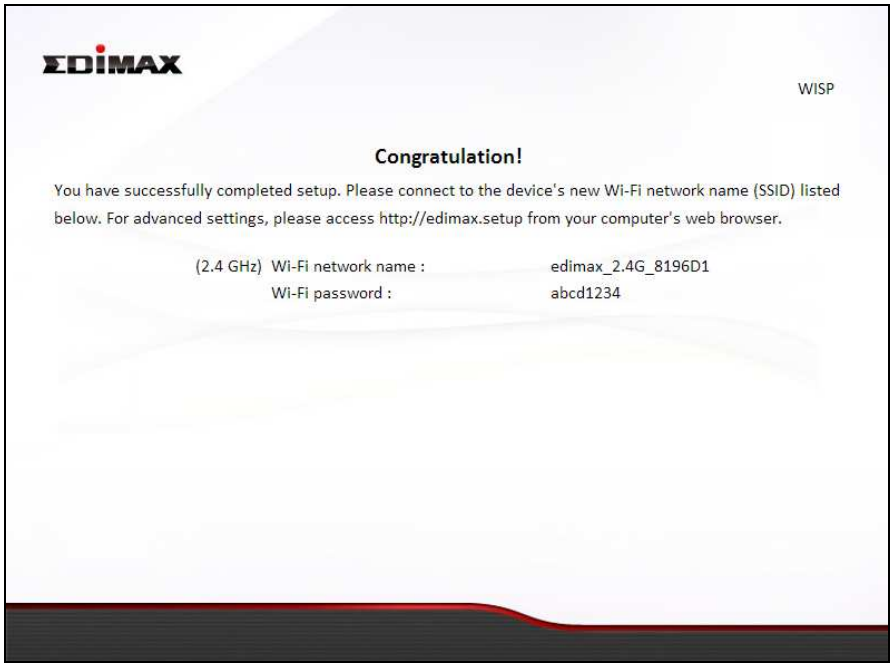
If you wish to backup the device’s settings, click “Backup this configuration” to open a new window and save your current configuration to a .txt file.



13. Please wait a moment until the BR-6428nS V3/BR-6228nS V3 is ready.



14. A final congratulations screen will indicate that setup is complete. You can now connect to the device's new SSID(s) which are shown on the screen then close the browser window.



15. The BR-6428nS V3/BR-6228nS V3 is working and ready for use. Refer to **IV-2. Connecting to a Wi-Fi network** if you require more guidance.

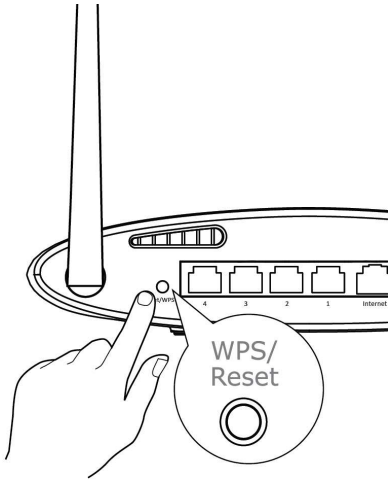
II-6. WPS Setup

If your wireless device supports WPS (Wi-Fi Protected Setup) then you can use this method to connect to the BR-6428nS V3/BR-6228nS V3's Wi-Fi network.

1. Press the **WPS button** on the BR-6428nS V3/BR-6228nS V3 for 2 – 5 seconds to activate WPS. The WLAN LED will flash to indicate that WPS is active.

2. **Within two minutes**, press the WPS button on the **wireless device/client** to activate its WPS.

3. The devices will establish a connection. Repeat for additional wireless devices.



Please check the instructions for your wireless device for how long you need to hold down its WPS button to activate WPS.

II-7. Reset to Factory Default Settings

If you experience problems with your BR-6428nS V3/BR-6228nS V3, you can reset the device back to its factory settings. This resets **all** settings back to default.

1. Press and hold the WPS/Reset button found on the back panel for at least 10 seconds, until the power LED begins to flash.

2. Release the button when the power LED is **flashing.**

3. Wait for the BR-6428nS V3/BR-6228nS V3 to restart. The BR-6428nS V3/BR-6228nS V3 is ready for setup when the power LED displays **on.**

III. Browser Based Configuration Interface

After you have setup the BR-6428nS V3/BR-6228nS V3 as detailed in **II. Installation** or the included **Quick Installation Guide**, you can use the browser based configuration interface to configure advanced settings.

Please ensure that your computer is set to use a dynamic IP address. Refer to IV-1. Configuring your IP address for more information.

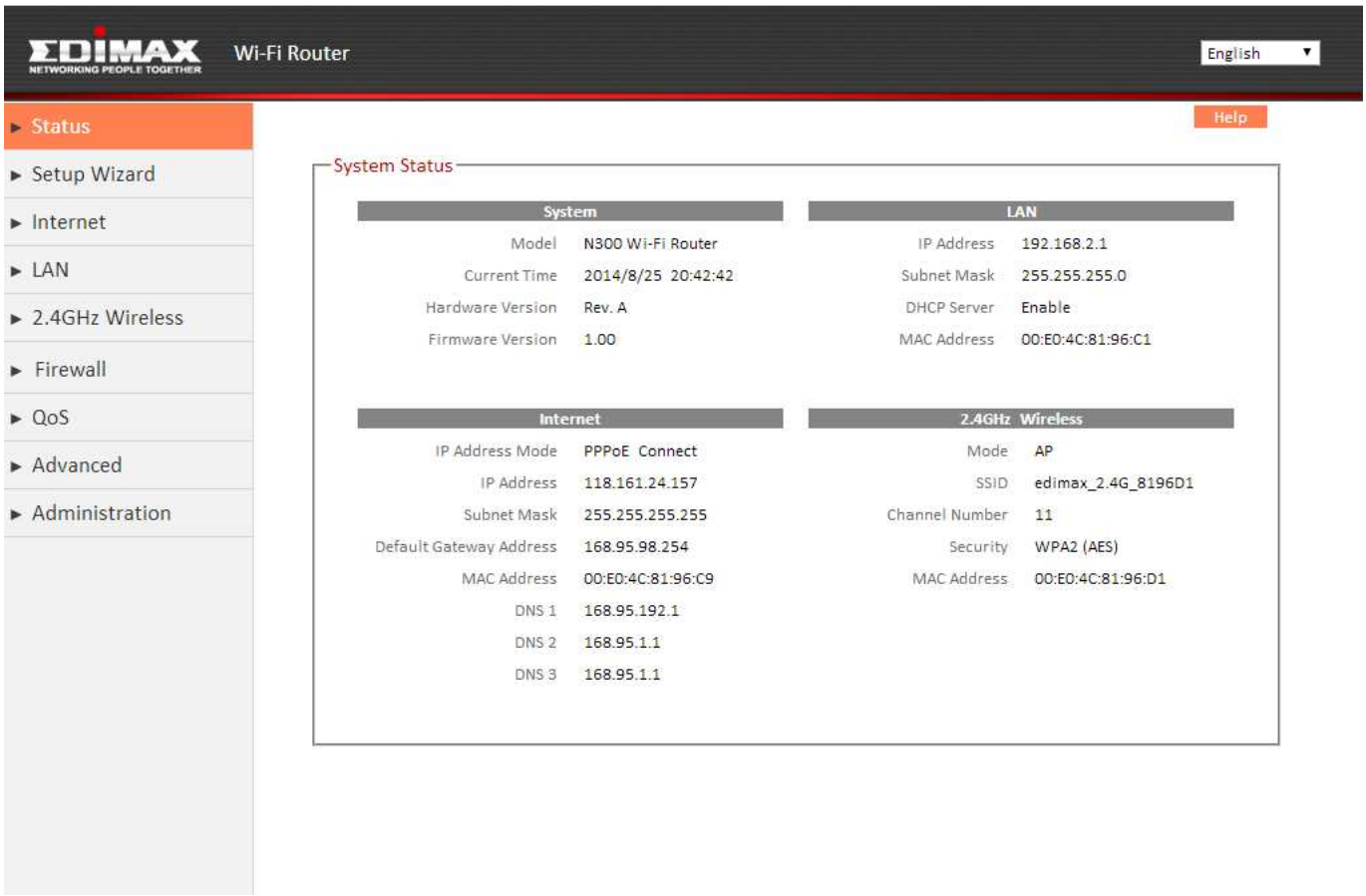
III-1. Login

1. To access the browser based configuration interface enter ***http://edimax.setup*** into the URL bar of a browser on a network device connected to the same Wi-Fi network as the BR-6428nS V3/BR-6228nS V3.

If you can not access** http://edimax.setup**, connect the device to a computer using an Ethernet cable and try again.

2. You will be prompted for a username and password. The default username is “admin” and the default password is “1234”.

3. You will arrive at the "Status" screen. Use the menu down the left side to navigate.



III-2. Save Settings

1. After you configure any settings, click the “Save Settings” button at the bottom of the screen to save your changes.

The device needs to restart in order to bring any changes into effect.

2. Then, click “Click here to restart” in order to restart the device and bring the changes into effect.

3. To make several changes at once, use the “Save Settings” button after each change and then click “click here to restart” after your final change. Only one restart is necessary as long as each change is saved with the “Save Settings” button.

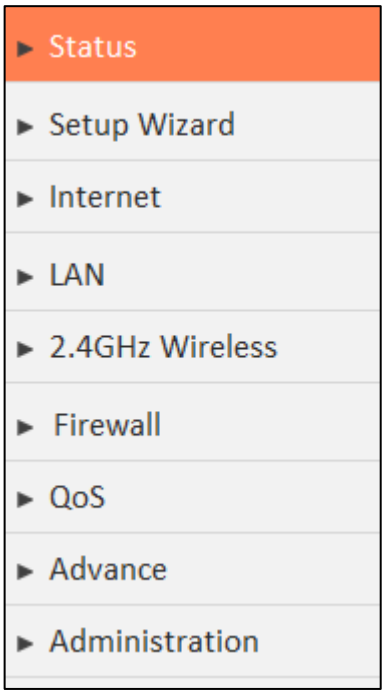
After you click “click here to restart”, all saved changes will come into effect.

III-3. Main Menu

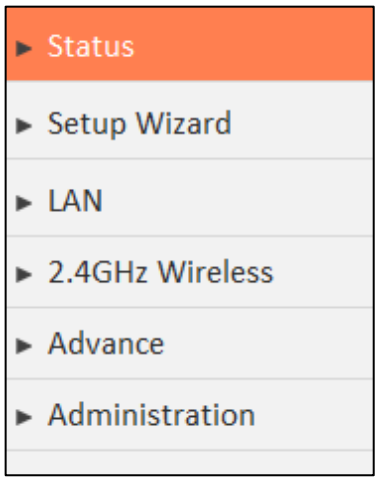
The main menu displays different options depending on your device's operating mode.

***For** Range Extender mode: WPS **please refer to** 2.4GHz Wireless → WPS*

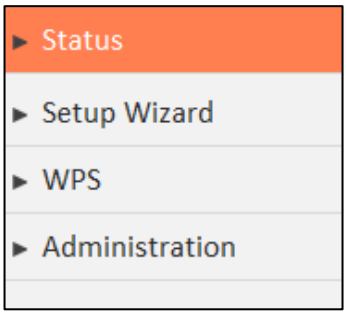
Wi-Fi Router



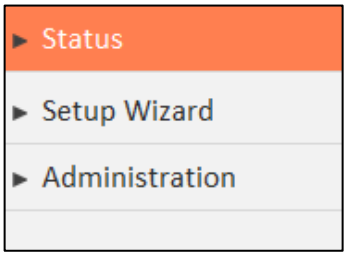
Access Point



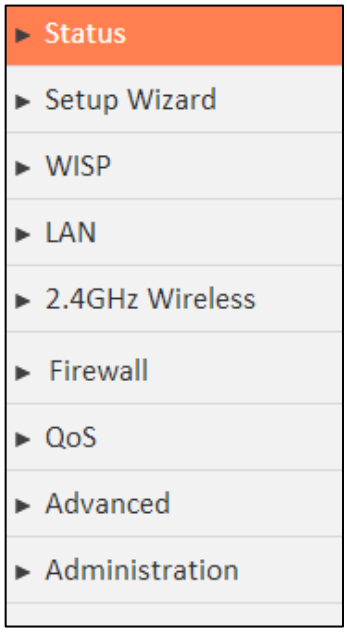
Range Extender



Wireless Bridge



WISP



III-3-1. Status

The “Status” page displays basic system information about the device, arranged into four categories: System, LAN, Internet & 2.4GHz Wireless.

Screenshots displayed are examples.The information shown on your screen will vary depending on your configuration.

System Status

System	
Model	N300 Wi-Fi Router
Current Time	2014/8/25 20:42:18
Hardware Version	Rev. A
Firmware Version	1.00

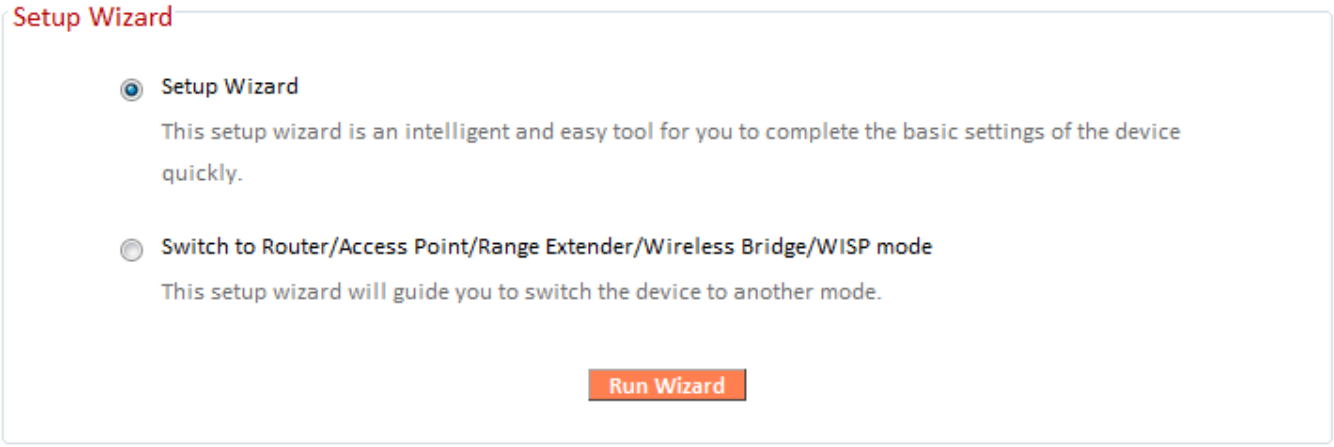
LAN	
IP Address	192.168.2.1
Subnet Mask	255.255.255.0
DHCP Server	Enable
MAC Address	00:E0:4C:81:96:C1

Internet	
IP Address Mode	PPPoE Connect
IP Address	118.161.24.157
Subnet Mask	255.255.255.255
Default Gateway Address	168.95.98.254
MAC Address	00:E0:4C:81:96:C9
DNS 1	168.95.192.1
DNS 2	168.95.1.1
DNS 3	168.95.1.1

2.4GHz Wireless	
Mode	AP
SSID	edimax_2.4G_8196D1
Channel Number	11
Security	WPA2 (AES)
MAC Address	00:E0:4C:81:96:D1

III-3-2. Setup Wizard

You can run the setup wizard again to reconfigure the basic settings of the device, or you can run a wizard to help you switch the device to a different operating mode. Select “Setup Wizard” or “Switch to Router/AP/Range Extender/Wireless Bridge/WISP mode” and then click “Run Wizard” to begin.

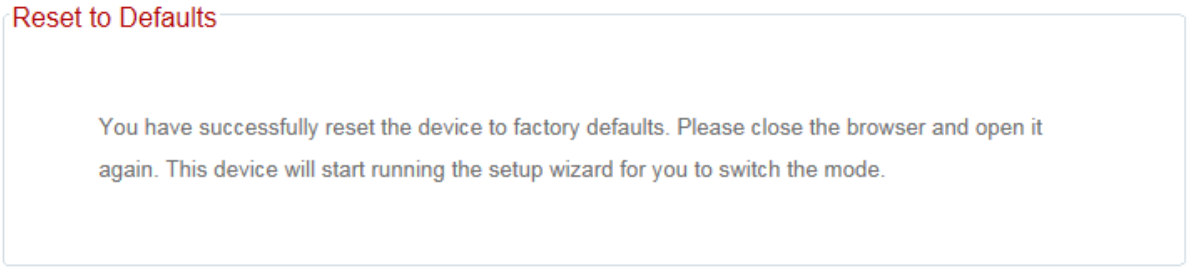


Setup Wizard	This wizard will help you to set up the basic functions and settings of the device. For guidance about using the setup wizard, please refer to **II. Installation**.
Switch to Router/Access Point/ Range Extender/ Wireless Bridge/ WISP mode	This wizard will help you to switch the device to a different operating mode: Wi-Fi router mode, access point mode, range extender, wireless bridge, or WISP mode (see below).

Switch to Router/Access Point/ Range Extender/ Wireless Bridge/ WISP mode:

1. Follow the on-screen instructions to back up your current settings and then reset the device back to its factory default settings.

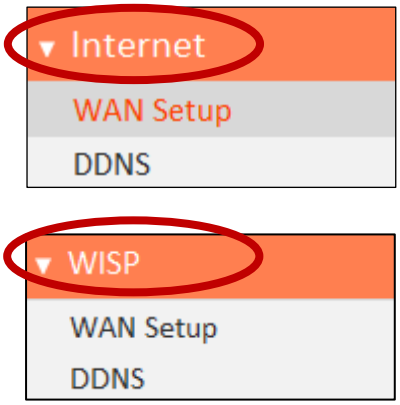
2. After the device has reset you will see the screen below. Close your browser and open it again.



3. Follow the on-screen wizard to setup your device in a different mode. Refer to **II. Installation Step 3** onwards for help if needed.

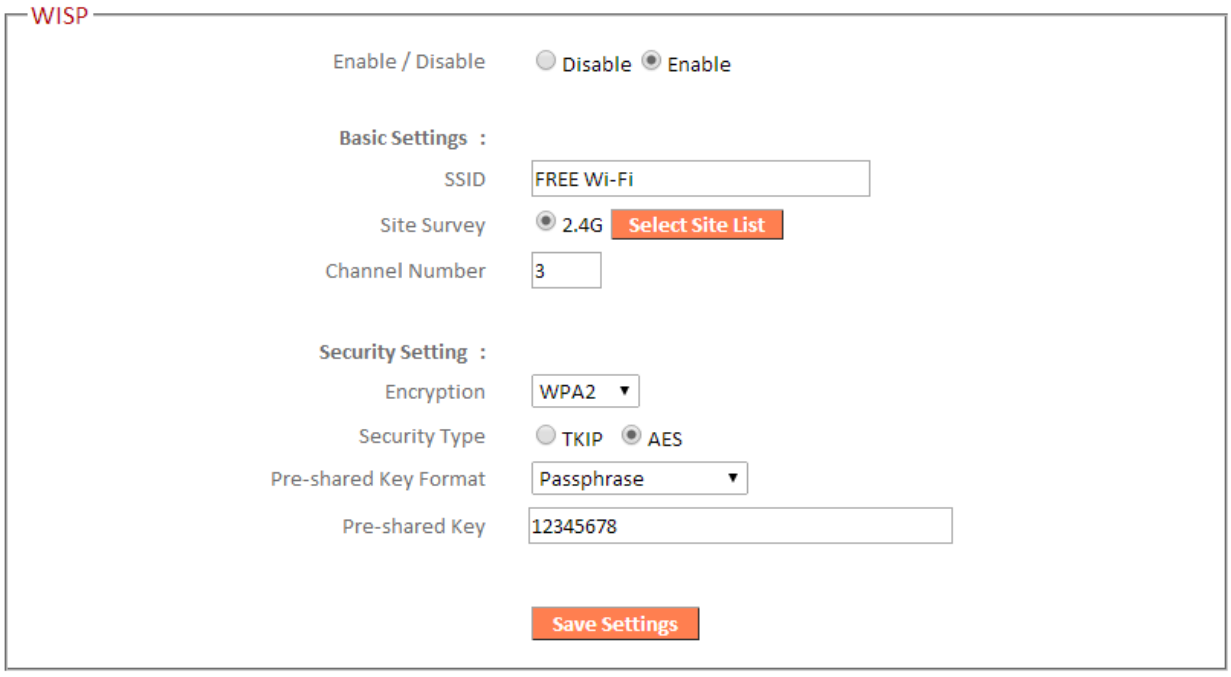
If you don't see the** "Get Started" **screen, try reconnecting to the** edimax.setup **SSID and go to** http://edimax.setup **in a web browser.

III-3-3. Internet/WISP



The “Internet” menu provides access to WAN and DDNS settings. Click on an item from the submenu to view and/or configure the settings.

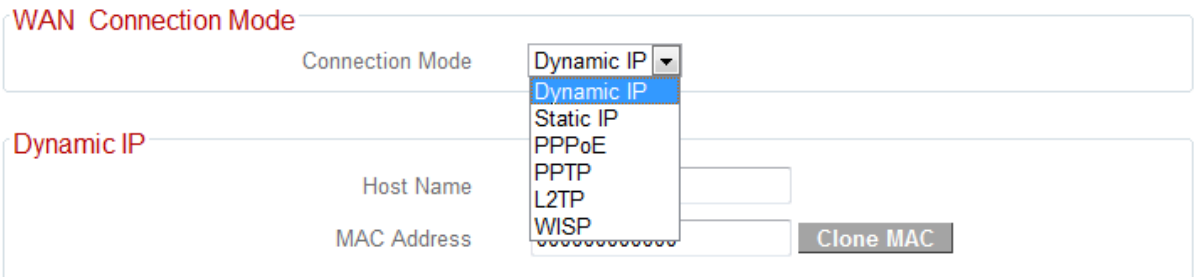
In WISP mode, the screen below will be displayed:



Enable / Disable	Enable or disable your WISP connection.
SSID	The name of the WISP network which your BR-6428nS V3/BR-6228nS V3 is connected to. Manually enter an SSID if you wish or use “Site Survey” below.
Site Survey	Select wireless frequency and click “Select Site List” to open a new window and select your WISP network.
Security Setting	Please refer to **III-3-5-1. Basic** for a description of security settings.

III-3-3-1. WAN Setup

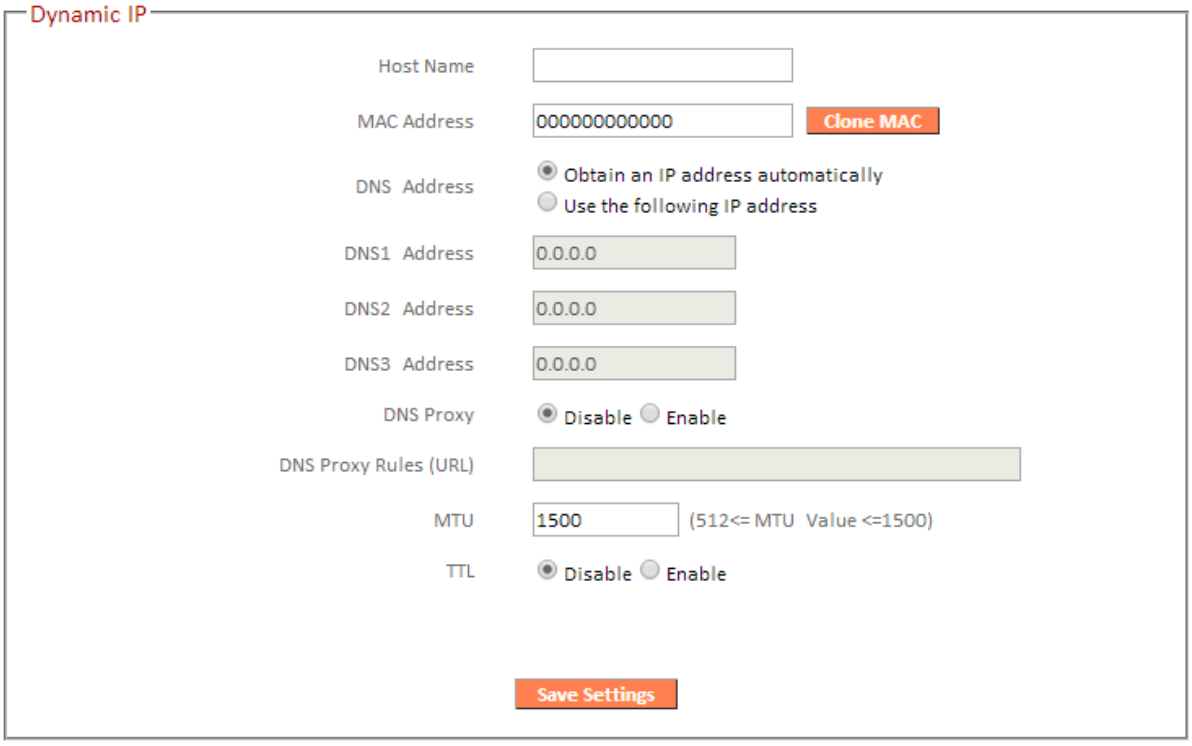
Select a Wide Area Network (WAN) connection mode and configure the settings. If you are unsure about your connection type, contact your ISP.



In WISP mode, only** Dynamic IP, Static IP **& PPPoE are available for** WAN Connection Mode**.

III-3-3-1-1. Dynamic IP

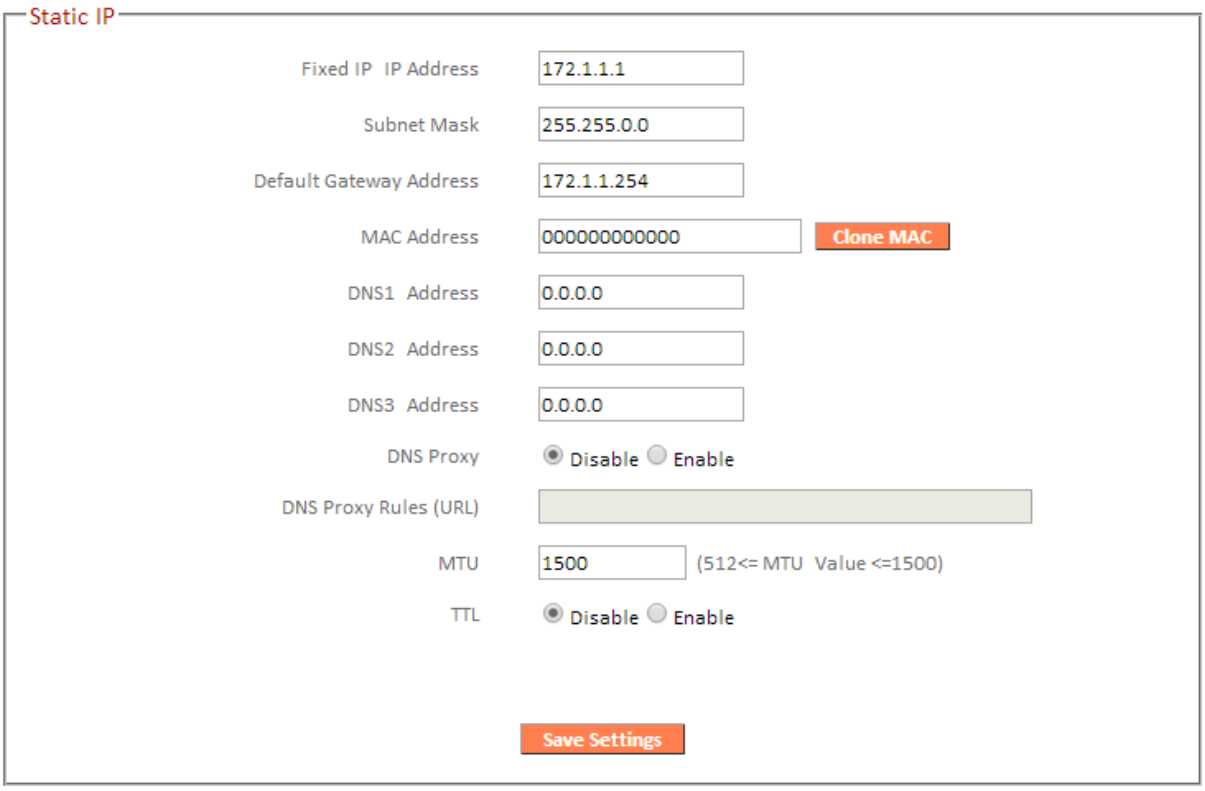
Select “Dynamic IP”. If your Internet service provider assigns IP address automatically using DHCP (Dynamic Host Configuration Protocol).



Host Name	Enter the host name of your computer.
MAC Address	For some applications, you may need to designate a specific MAC address for the router. Please enter the MAC address here. If you are connecting the router to a computer, press “Clone Mac” to automatically enter your computer’s MAC address.
DNS Address	Select “Obtain an IP address automatically” or “Use the following IP address”. Check with your ISP if you are unsure.
DNS Address 1,2 & 3	Enter the DNS address(es) assigned by your ISP here.
DNS Proxy	Enable or disable a DNS proxy server.
DNS Proxy Rules (URL)	When DNS proxy is enabled, enter the URL of a DNS proxy server.
MTU	Enter the maximum transmission unit (MTU) value of your network connection. The default value is 1500.
TTL	Enable/Disable time to live (TTL) function which limits the lifespan of network data to improve performance.

III-3-3-1-2. Static IP

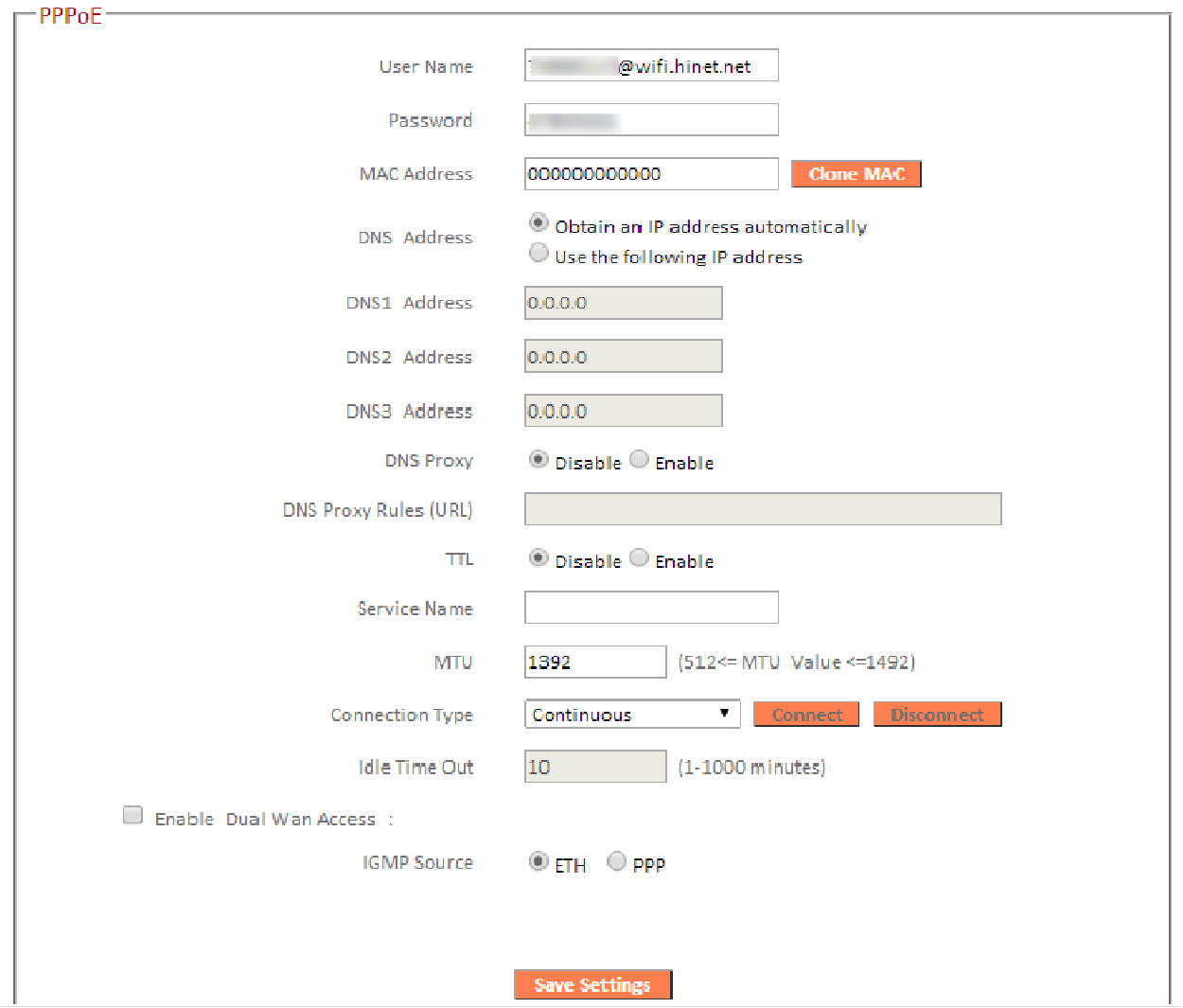
Select “Static IP” if your ISP provides Internet access via a fixed IP address. Your ISP will provide you with such information as IP address, subnet mask, gateway address, and DNS address.



Fixed IP Address	Input the IP address assigned by your ISP here.
Subnet Mask	Input the subnet mask assigned by your ISP here.
Default Gateway Address	Input the default gateway assigned by your ISP here. Some ISPs may call this “Default Route”.
MAC Address	For some applications, you may need to designate a specific MAC address for the router. Please enter the MAC address here. If you are connecting the router to a computer, press “Clone Mac” to automatically enter your computer’s MAC address.
DNS Address 1, 2 & 3	Enter the DNS address(es) assigned by your ISP here.
DNS Proxy	Enable or disable a DNS proxy server.
DNS Proxy Rules (URL)	When DNS proxy is enabled, enter the URL of a DNS proxy server.
TTL	Enable/Disable time to live (TTL) function which limits the lifespan of network data to improve performance.

III-3-3-1-3. PPPoE

Select “PPPoE” if your ISP is providing you Internet access via PPPoE (Point-to-Point Protocol over Ethernet).

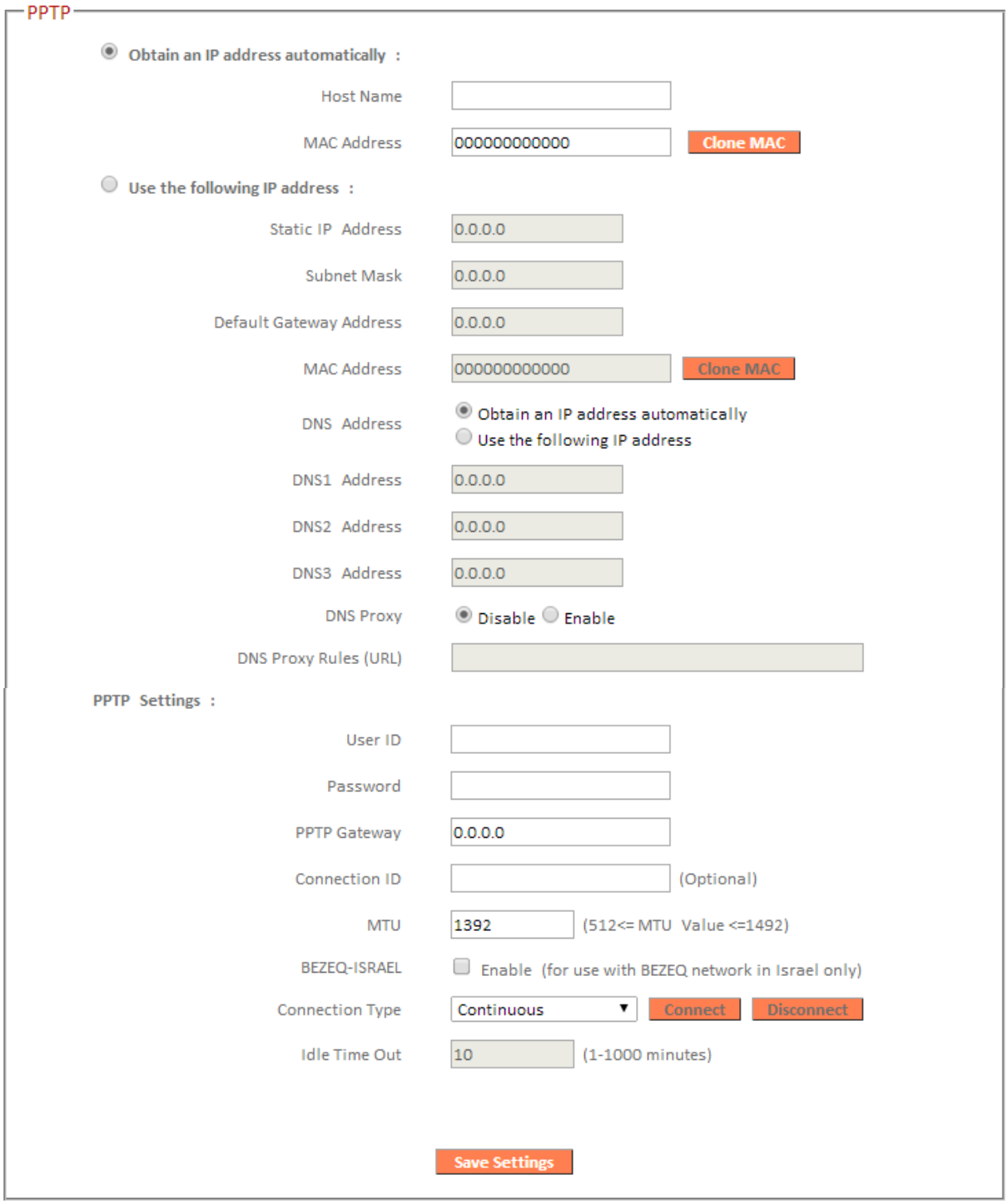


User Name	Enter the user name assigned by your ISP here.
Password	Enter the password assigned by your ISP here.
MAC Address	For some applications, you may need to designate a specific MAC address for the router. Please enter the MAC address here. If you are connecting the router to a computer, press “Clone Mac” to automatically enter your computer’s MAC address.

DNS Address	Select “Obtain an IP address automatically” or “Use the following IP address”. Check with your ISP if you are unsure.
DNS Address 1, 2 & 3	Enter the DNS address(es) assigned by your ISP here.
DNS Proxy	Enable or disable a DNS proxy server.
DNS Proxy Rules (URL)	When DNS proxy is enabled, enter the URL of a DNS proxy server.
Service Name	Give this Internet service a name (optional).
MTU	Enter the maximum transmission unit (MTU) value of your network connection. The default value is 1392.
Connection Type	Specify a connection type: 1. “Continuous”: Connected all the time. 2. “Connect on Demand”: Connect when you initiate an Internet connection. 3. “Manual”: Connect/disconnect manually using the “Connect” and “Disconnect” buttons.
Idle Time Out	Specify the amount of time the router waits before shutting down an idle connection. Only available when “Connect on Demand” (above) is selected.
Enable Dual-WAN Access	Enable/disable dual WAN access. When you enable dual WAN access, select an IGMP source and enter a “Host Name” and “MAC Address”.

III-3-3-1-4. PPTP

Select “PPTP” if your ISP is providing you Internet access via PPTP (Point-to-Point Tunneling Protocol). Then select “Obtain an IP address automatically” or “Use the following IP address” depending on your ISP.

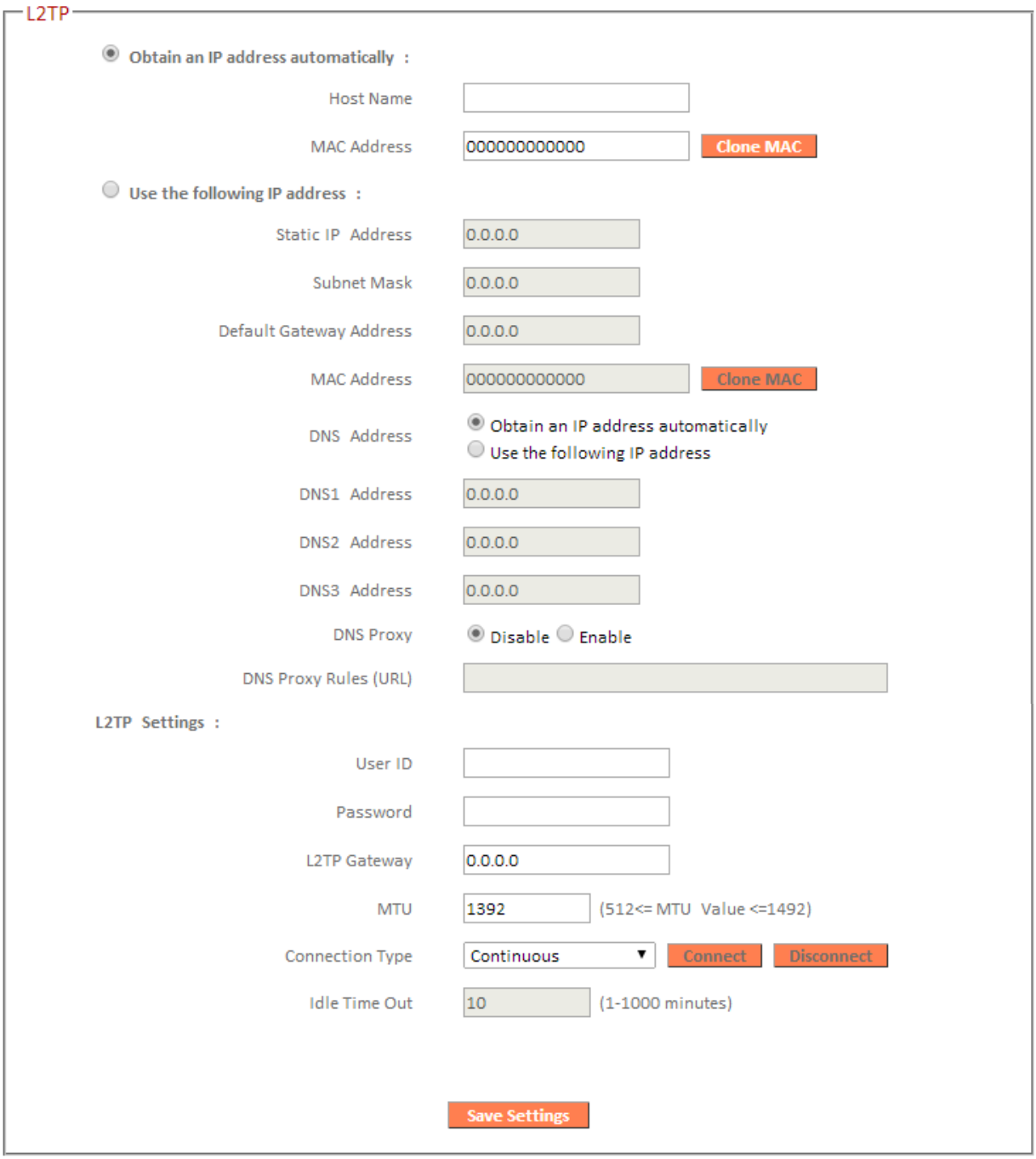


Host Name	Enter the host name of your computer here If required.
MAC Address	For some applications, you may need to designate a specific MAC address for the router. Please enter

	the MAC address here. If you are connecting the router to a computer, press “Clone Mac” to automatically enter your computer’s MAC address.
Static IP Address	Input the IP address assigned by your ISP here.
Subnet Mask	Input the subnet mask assigned by your ISP here.
Default Gateway Address	Input the default gateway assigned by your ISP here. Some ISPs may call this “Default Route”.
MAC Address	If your ISP filters access by MAC addresses, enter your computer’s MAC address here. Click “Clone MAC” to automatically enter your computer’s MAC address.
DNS Address	Select “Obtain an IP address automatically” or “Use the following IP address”. Check with your ISP if you are unsure.
DNS Address 1,2 & 3	Enter the DNS address(es) assigned by your ISP here.
DNS Proxy	Enable or disable a DNS proxy server.
DNS Proxy Rules (URL)	When DNS proxy is enabled, enter the URL of a DNS proxy server.
User ID	Input the user name assigned by your ISP here.
Password	Input the password assigned by your ISP here.
PPTP Gateway	Input the PPTP gateway assigned by your ISP here.
Connection ID	Specify a reference name/ID for the connection.
MTU	Enter the maximum transmission unit (MTU) value of your network connection. The default value is 1392.
BEZEQ-ISRAEL	Check the “Enable” box if you are using BEZEQ network services (Israel users only).
Connection Type	Specify a connection type: 1. “Continuous”: Connected all the time. 2. “Connect on Demand”: Connect when you initiate an Internet connection. 3. “Manual”: Connect/disconnect manually using the “Connect” and “Disconnect” buttons.
Idle Time Out	Specify the amount of time the router waits before shutting down an idle connection. Only available when “Connect on Demand” (above) is selected.

III-3-3-1-5. L2TP

Select “L2TP” if your ISP is providing you Internet access via L2TP (Layer 2 Tunneling Protocol).

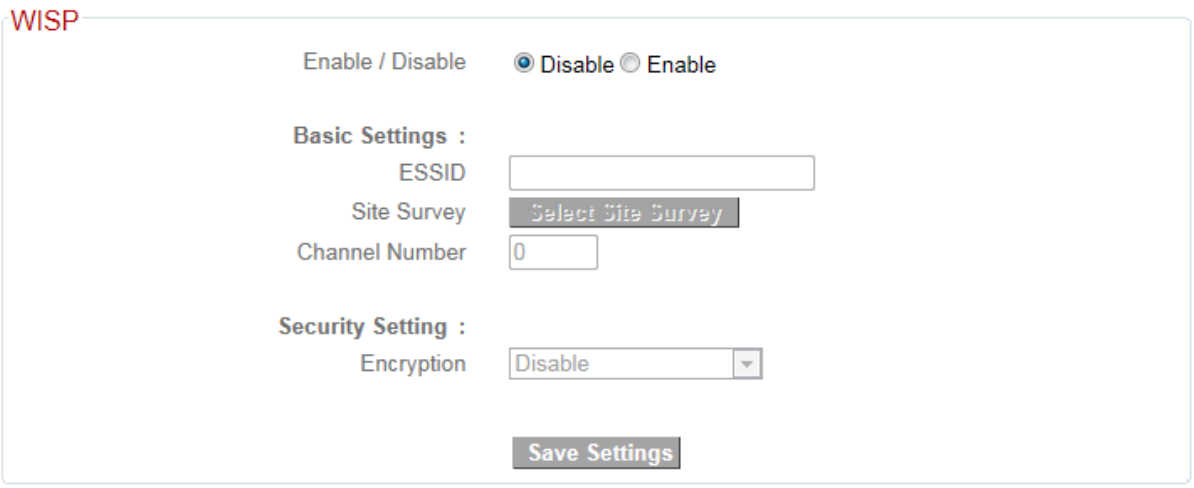


Host Name	Enter the host name of your computer here If required.
MAC Address	For some applications, you may need to designate a specific MAC address for the router. Please enter the MAC address here. If you are connecting the router to a computer, press “Clone Mac” to automatically enter your computer’s MAC address.

Static IP Address	Input the IP address assigned by your ISP here.
Subnet Mask	Input the subnet mask assigned by your ISP here.
Default Gateway Address	Input the default gateway assigned by your ISP here. Some ISPs may call this “Default Route”.
MAC Address	If your ISP filters access by MAC addresses, enter your computer’s MAC address here. Click “Clone MAC” to automatically enter your computer’s MAC address.
DNS Address	Select “Obtain an IP address automatically” or “Use the following IP address”. Check with your ISP if you are unsure.
DNS Address 1,2 & 3	Enter the DNS address(es) assigned by your ISP here.
DNS Proxy	Enable or disable a DNS proxy server.
DNS Proxy Rules (URL)	When DNS proxy is enabled, enter the URL of a DNS proxy server.
User ID	Input the user name assigned by your ISP here.
Password	Input the password assigned by your ISP here.
L2TP Gateway	Input the L2TP gateway assigned by your ISP here.
Connection ID	Specify a reference name/ID for the connection.
MTU	Enter the maximum transmission unit (MTU) value of your network connection. The default value is 1392.
Connection Type	Specify a connection type: 1. “Continuous”: Connected all the time. 2. “Connect on Demand”: Connect when you initiate an Internet connection. 3. “Manual”: Connect/disconnect manually using the “Connect” and “Disconnect” buttons.
Idle Time Out	Specify the amount of time the router waits before shutting down an idle connection. Only available when “Connect on Demand” (above) is selected.

III-3-3-1-6. WISP

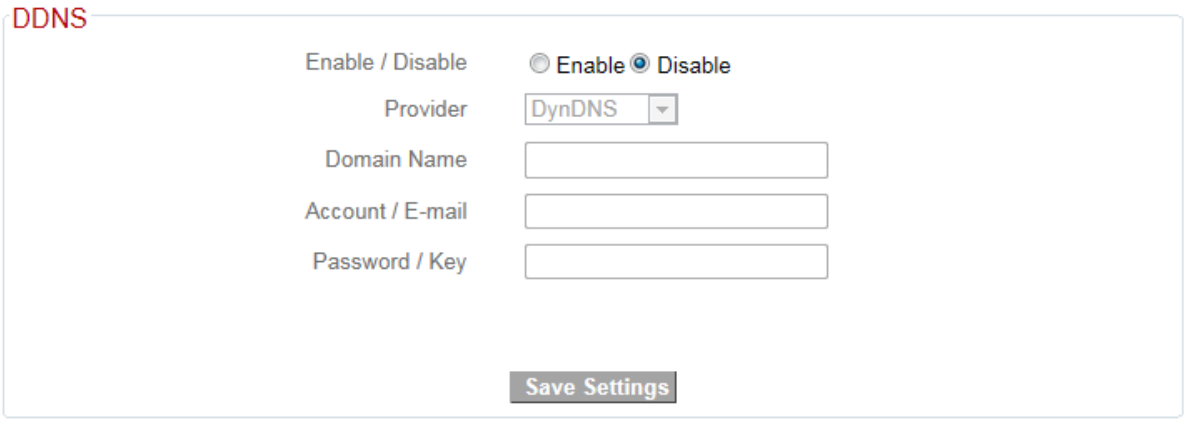
Select “WISP” if you use a wireless internet service from Internet Service Provider (WISP).



WISP	Enable or disable the WISP function.
SSID	Enter the SSID of the WISP network, or click “Select Site Survey” below to view all available networks in a new window and select the WISP network from there.
Select Site Survey	Click “Select Site Survey” to display all available wireless SSIDs in a new window and select your WISP network.
Channel Number	Enter the channel number of the WISP network.
Security Settings	Enter the security information required by your ISP.

III-3-3-2. DDNS

Dynamic DNS (DDNS) is a service which provides a hostname-to-IP service for dynamic IP users. The changing nature of dynamic IPs means that it can be difficult to access a service provided by a dynamic IP user; a DDNS service though can map such dynamic IP addresses to a fixed hostname, for easier access. The router supports several DDNS service providers, for more details and to register for a DDNS account please visit the DDNS providers website(s), examples of which are listed below.



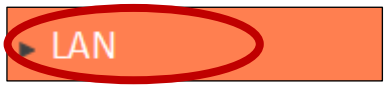
Enable/Disable	Enable or disable DDNS
Provider	Select DDNS service provider.
Domain Name	Enter the domain name provided by the DDNS provider.
Account/Email	Please enter the DDNS registration account/email.
Password/Key	Enter the DDNS service password/key.

The following DDNS services are supported:

3322 *http://www.3322.org*
DHS *http://www.dhs.org*
DynDNS *http://www.dyndns.org*
ODS *http://ods.org*
TZO *http://www.tzo.com*
GnuDIP *http://gnudip2.sourceforge.net*
DyNS *http://www.dyns.cx/*
ZoneEdit *http://www.zoneedit.com*
CyberGate *http://cybergate.planex.co.jp/ddns/*

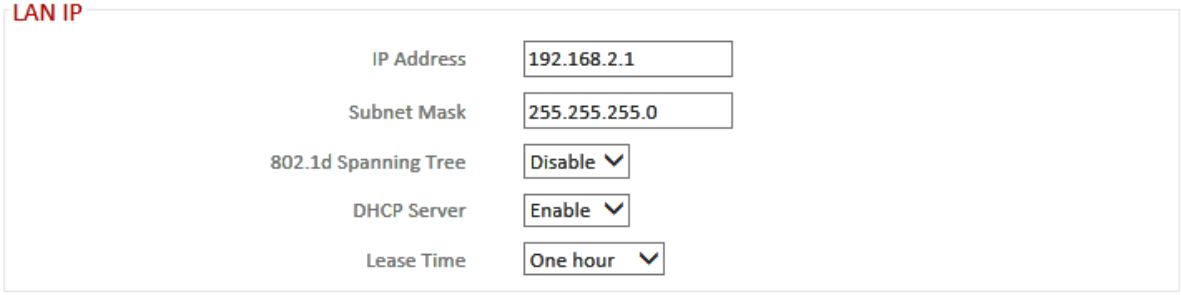
NS2GO *http://www.ns2go.com/*
NO-IP *http://www.noip.com/*

III-3-4. LAN



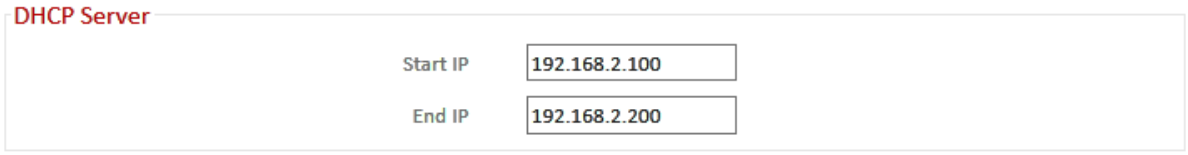
You can configure your Local Area Network (LAN) on this page. You can enable the router to dynamically allocate IP addresses to your LAN clients, and you can modify the IP address of the device. The device's default IP address is 192.168.2.1.

You can access the browser based configuration interface using the device's IP address instead of using the URL http://edimax.setup.



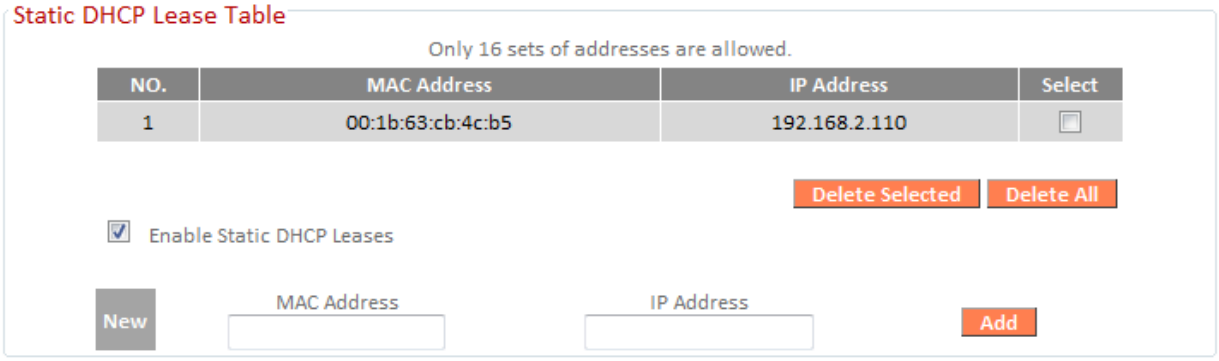
IP Address	Specify the IP address here. This IP address will be assigned to the BR-6428nS V3/BR-6228nS V3 and will replace the default IP address.
Subnet Mask	Specify a subnet mask. The default value is 255.255.255.0
802.1d Spanning Tree	Select "Enable" or "Disable" to enable/disable 802.1d Spanning Tree. This creates a tree of connected layer-2 bridges (typically Ethernet switches) within a mesh network, and disables those links that are not part of the tree, leaving a single active path between any two network nodes.
DHCP Server	Enable or disable the DHCP server.
Lease Time	Select a lease time for the DHCP leases here. The DHCP client will obtain a new IP address after the period expires.

Your device's DHCP server automatically assigns IP addresses to computers on its network, between a defined range of numbers.



Start IP	Enter the start IP address for the DHCP server's IP address leases.
End IP	Enter the end IP address for the DHCP server's IP address leases.

Your device's DHCP server can be configured to assign static (fixed) IP addresses to specified network devices, identified by their unique MAC address.

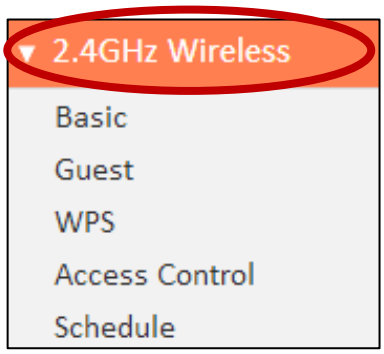


Enable Static DHCP Leases	Enable/disable static DHCP leases. This must be enabled in order to assign any network device a static IP address.
MAC Address	Enter the specified network device's MAC address here.
IP Address	Assign a fixed IP address for the specified network device here.
Add	Add the information to the "Static DHCP Leases Table".
Clear	Clear the MAC address and IP address fields.
Delete Selected / Delete All	Delete selected or all entries from the table.

The LAN IP page will be displayed as below when your device is set to access point mode. You can set theBR-6428nS V3/BR-6228nS V3 to obtain an IP address automatically or you can specify an IP address.

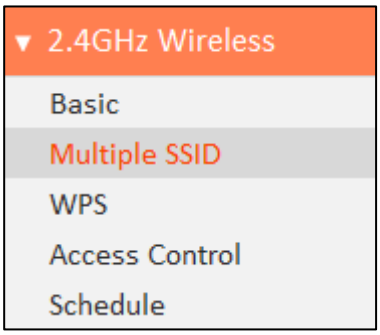

LAN IP
Obtain an IP address automatically
Use the following IP address
IP Address
192.168.2.1
Subnet Mask
255.255.255.0
Default Gateway Address

III-3-5. 2.4GHz Wireless



The “2.4GHz Wireless” menu allows you to configure SSID and security settings for your Wi-Fi network along with a guest Wi-Fi network. WPS, access control and scheduling functions can also be managed from here.

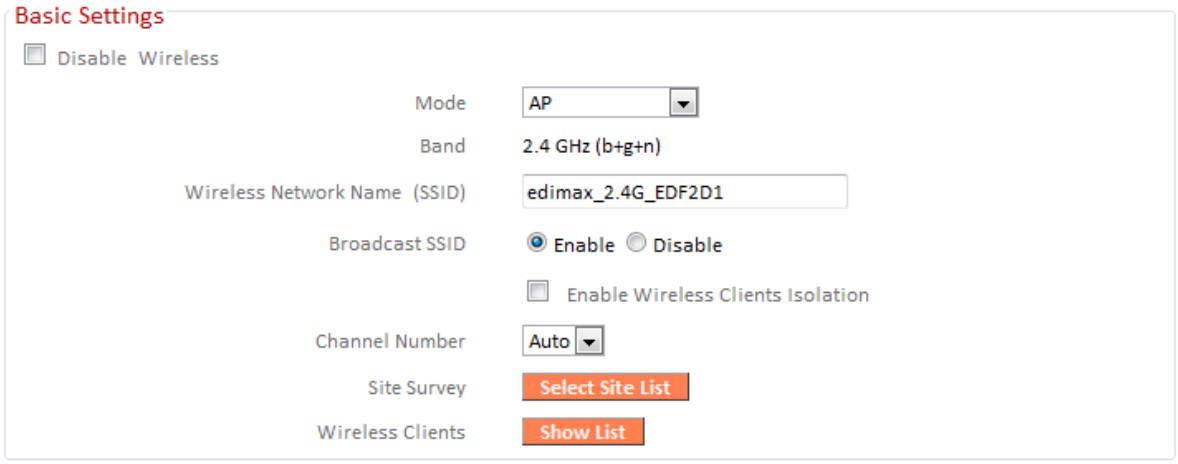
Access Point Mode:



In Access Point mode, the “Guest” feature in the menu is replaced by “Multiple SSID”.

III-3-5-1. Basic

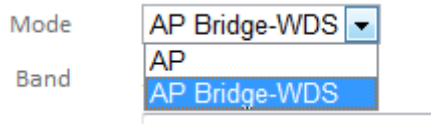
The “Basic” screen displays settings for your primary 2.4GHz Wi-Fi network.



Disable Wireless	Check the box to disable the wireless function of your device.
Mode	Keep the default “AP” value for the device to act as a standard wireless access point, or

	select “AP Bridge-WDS” for the device to function in WDS mode (see below).
Band	Displays the wireless standard used for the BR-6428nS V3/BR-6228nS V3’s “2.4GHz (B+G+N)” means that 802.11b, 802.11g, and 802.11n wireless clients can connect to the BR-6428nS V3/BR-6228nS V3.
Wireless Network Name (SSID)	This is the name of your Wi-Fi network for identification, also sometimes referred to as “SSID”. The SSID can consist of any combination of up to 32 alphanumerical characters.
Broadcast SSID	Enable or disable SSID broadcast. When enabled, the SSID will be visible to clients as an available Wi-Fi network. When disabled, the SSID will not be visible as an available Wi-Fi network to clients – clients must manually enter the SSID in order to connect. A hidden (disabled) SSID is typically more secure than a visible (enabled) SSID.
Enable Wireless Clients Isolation	Check the box to enable wireless clients isolation. This prevents wireless clients connected to the BR-6428nS V3/BR-6228nS V3 from communicating with each other and improves security. Typically, this function is useful for corporate environments or public hot spots and can prevent brute force attacks on clients’ usernames and passwords.
Channel Number	Select a wireless radio channel or use the default “Auto” setting from the drop-down menu.
Site Survey	Click “Select Site List” to display a new window showing information about the surrounding wireless environment. This information is useful to select an effective wireless channel number.
Wireless Clients	Click “Show List” to display a new window showing information about wireless clients. Please disable any pop-up blockers if you have difficulty using this function.

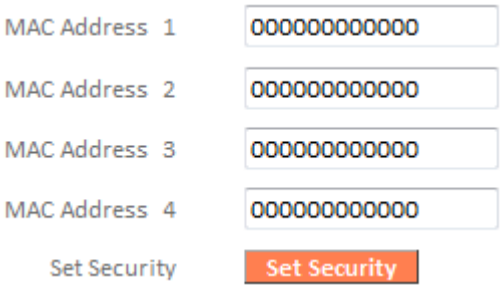
AP Bridge-WDS:



Wireless Distribution System (WDS) can bridge/repeat access points together in an extended network. WDS settings can be configured as shown below.

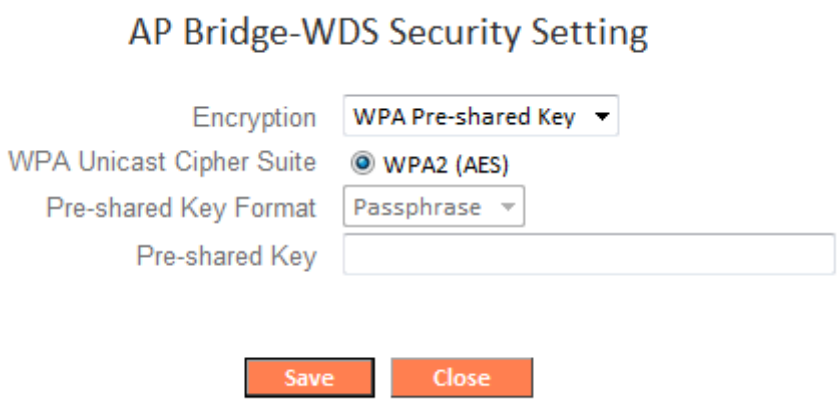
When using WDS, configure the IP address of each access point to be in the same subnet and ensure there is only one active DHCP server among connected access points, preferably on the WAN side.

WDS must be configured on each access point, using correct MAC addresses. All access points should use the same wireless channel.



MAC Address 1 - 4	Enter the correct MAC address for other access points in WDS mode.
Set Security	Click “Set Security” to open a new window and enter the security settings for WDS (shown below). Click “Save” when finished.

Please ensure you setup and save wireless security settings before you click “Set Security” to set WDS security settings.

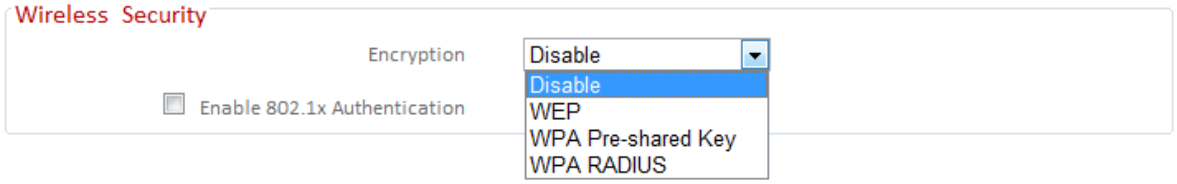


Wireless Security:

Select an encryption type from the drop-down menu:

"WPA Pre-shared Key" is the recommended and most secure encryption type.

In WISP mode, WPA RADIUS is unavailable for the wireless band that is used to connect to WISP's AP.

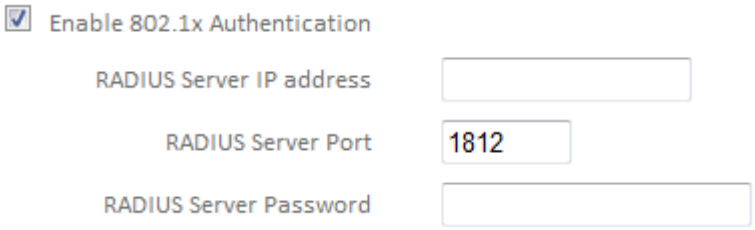


III-3-5-1-1. Disable

Encryption is disabled and no password/key is required to connect to the BR-6428nS V3/BR-6228nS V3.

Disabling wireless encryption is not recommended. When disabled, anybody within range can connect to your device's SSID.

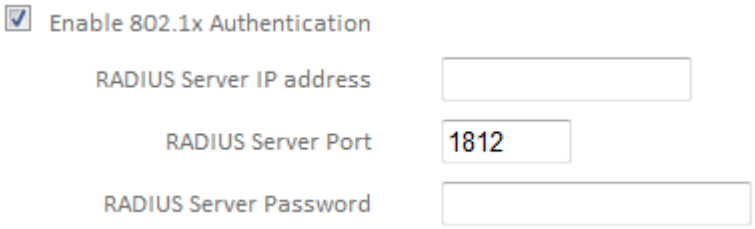
Enable 802.1x Authentication	Check the box to enable the 802.1x authentication. A RADIUS server is required to perform 802.1x authentication: enter the RADIUS server's information in the relevant fields (below).



III-3-5-1-2. WEP

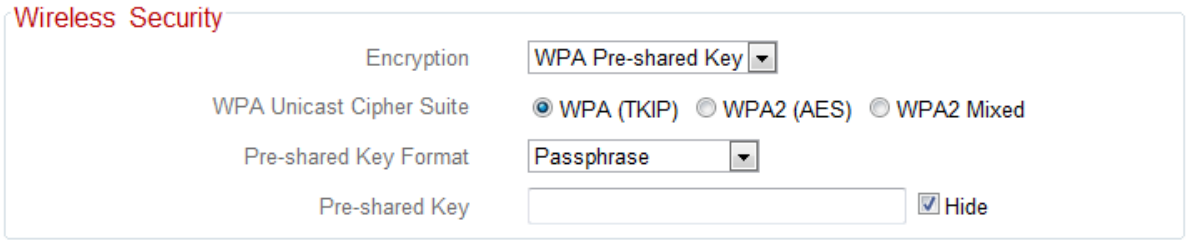
WEP (Wired Equivalent Privacy) is a basic encryption type. For a higher level of security consider using WPA encryption.

Key Length	Select 64-bit or 128-bit. 128-bit is more secure than 64-bit.
Key Format	Choose from “ASCII” (any alphanumerical character 0-9, a-z and A-Z) or “Hex” (any characters from 0-9, a-f and A-F).
Encryption Key	Enter your encryption key/password according to the format you selected above. A complex, hard-to-guess key is recommended. Check the “Hide” box to hide your password from being displayed on-screen.
Enable 802.1x Authentication	Check the box to enable the 802.1x authentication. A RADIUS server is required to perform 802.1x authentication: enter the RADIUS server’s information in the relevant fields (below).



III-3-5-1-3. WPA Pre-Shared Key

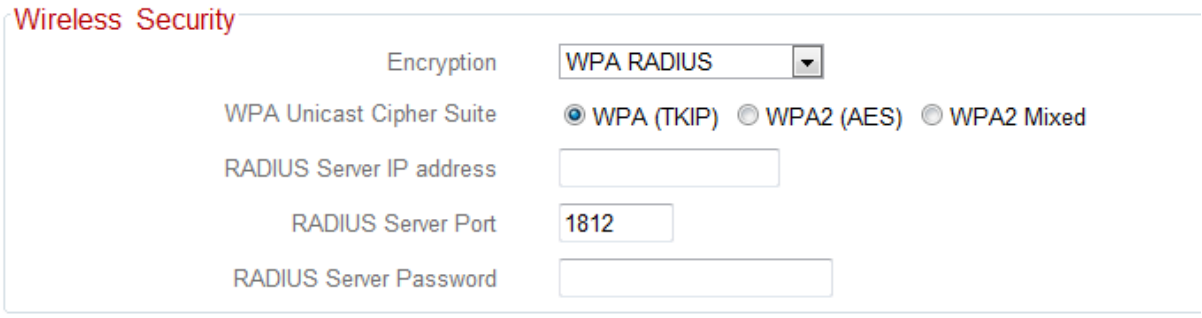
WPA pre-shared key is the recommended and most secure encryption type.



WPA Unicast Cipher Suite	Select from WPA (TKIP), WPA2 (AES) or WPA2 Mixed. WPA2 (AES) is safer than WPA (TKIP), but not supported by all wireless clients. Please make sure your wireless client supports your selection. WPA2 (AES) is recommended followed by WPA2 Mixed if your client does not support WPA2 (AES).
Pre-shared Key Format	Choose from “Passphrase” (8-63 alphanumeric characters) or “Hex” (up to 64 characters from 0-9, a-f and A-F).
Pre-shared Key	Please enter a key according to the format you selected above. A complex, hard-to-guess key is recommended. Check the “Hide” box to hide your password from being displayed on-screen.

III-3-5-1-4. WPA Radius

WPA RADIUS is a combination of WPA encryption and RADIUS user authentication. If you have a RADIUS authentication server, you can authenticate the identity of every wireless client against a user database.



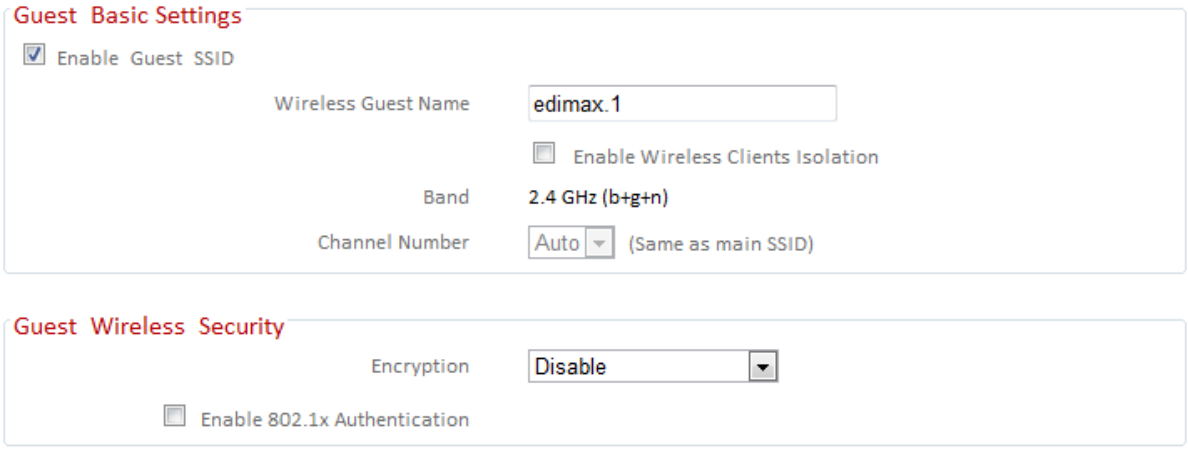
WPA Unicast Cipher Suite	Select from WPA (TKIP), WPA2 (AES) or WPA2 Mixed. WPA2 (AES) is safer than WPA (TKIP), but not supported by all wireless clients. Please make sure your wireless client supports your selection. WPA2 (AES) is recommended followed by WPA2 Mixed if your client does not support WPA2 (AES).
RADIUS Server IP address	Input the IP address of the RADIUS authentication server here.
RADIUS Server Port	Input the port number of the RADIUS authentication server here. The default value is 1812.
RADIUS Server Password	Input the password of the RADIUS authentication server here.

III-3-5-2. Guest/ Multiple SSID

You can setup an additional “Guest” Wi-Fi network so guest users can enjoy Wi-Fi connectivity without accessing your primary network. The “Guest” screen displays settings for your guest Wi-Fi network.

The guest network is separate from your primary network. The settings for your primary network can be found in the “Basic” menu.

In access point mode, the “Guest” feature in the menu is replaced by “Multiple SSID”. The BR-6428nS V3/BR-6228nS V3 supports up to four additional SSIDs for each wireless band in access point mode.



802.1x authentication is unavailable in WISP mode for the wireless band that is used to connect to WISP’s AP.

Enable Guest SSID	Check/uncheck the box to enable/disable the guest Wi-Fi network.
Wireless Guest Name	Enter a reference/ID name for your guest wireless network.
Enable Wireless Clients Isolation	Check the box to enable wireless clients isolation. This prevents wireless clients connected to the BR-6428nS V3/BR-6228nS V3 from communicating with each other and improves security. Typically, this function is useful for corporate environments or public hot spots and can prevent brute force attacks on clients’ usernames and passwords.

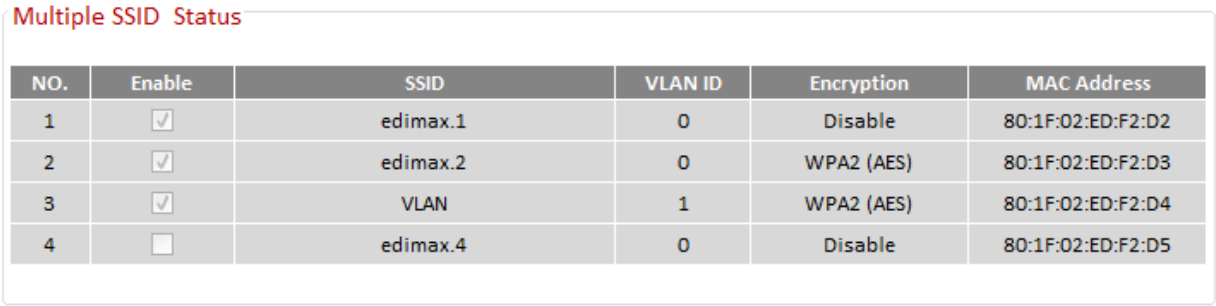
Band	Displays the wireless standard used for the BR-6428nS V3/BR-6228nS V3's frequency band: 2.4GHz (B+G+N): Allows 802.11b, 802.11g, and 802.11n wireless clients to connect to the BR-6428nS V3/BR-6228nS V3.
Channel Number	Channel number for the guest network is the same as the main SSID and cannot be adjusted independently.

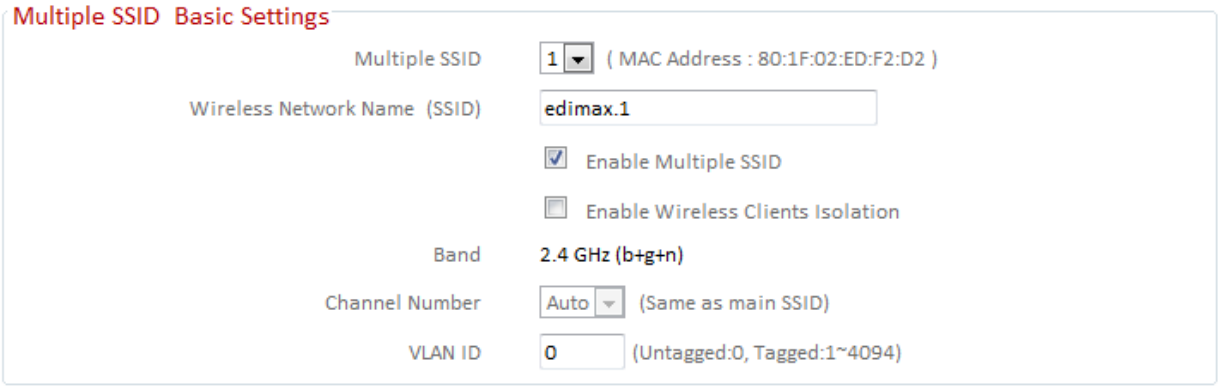
Encryption	Please refer to ***III-3-5-1. Basic: Wireless Security*** for details about security settings.

WPA RADIUS encyrption type is not available for the guest network.

MULTIPLE SSID:

The BR-6428nS V3/BR-6228nS V3 supports up to four additional SSIDs for each wireless band in access point mode. Once configured, these SSIDs are displayed in the "Multiple SSID Status" table as shown below. Use the "Multiple SSID Basic Settings" box to configure additional SSIDs.



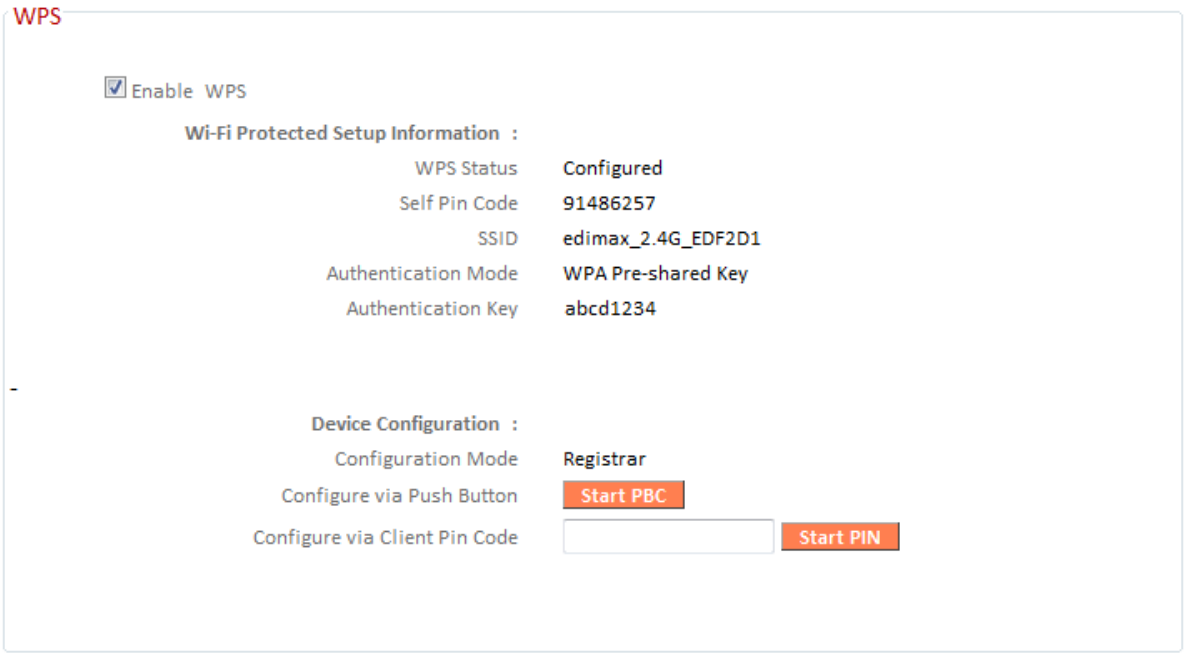


Multiple SSID	Use the drop down menu to select which SSID (numbered 1 – 4) to configure.
Wireless Network Name (SSID)	Enter a reference/ID name to separate your wireless network.
Enable Multiple SSID	Check/uncheck this box to enable/disable the specified SSID. Must be checked for the SSID to function.
Enable Wireless Clients Isolation	Check the box to enable wireless clients isolation. This prevents wireless clients connected to the BR-6428nS V3/BR-6228nS V3 from communicating with each other and improves security. Typically, this function is useful for corporate environments or public hot spots and can prevent brute force attacks on clients' usernames and passwords.
Band	Displays the wireless standard used for the BR-6428nS V3/BR-6228nS V3's frequency band: 2.4GHz (B+G+N): Allows 802.11b, 802.11g, and 802.11n wireless clients to connect to the BR-6428nS V3/BR-6228nS V3.
Channel Number	Channel number for the guest network is the same as the main SSID and cannot be adjusted independently.
VLAN ID	Set a VLAN ID for the specified SSID (see below).

A VLAN is a local area network which maps workstations virtually instead of physically and allows you to group together or isolate users from each other. VLAN IDs 1 – 4094 are supported.

III-3-5-3. WPS

Wi-Fi Protected Setup is a simple way to establish connections between WPS compatible devices. WPS can be activated on compatible devices by pushing a WPS button on the device or from within the device's firmware/configuration interface. When WPS is activated in the correct manner and at the correct time for two compatible devices, they will automatically connect. PIN code WPS includes the use of a PIN code between the two devices for verification.



Enable WPS	Check/uncheck this box to enable/disable WPS.
WPS Status	Displays "Configured" or "unConfigured" depending on whether WPS and SSID/security settings for the device have been configured or not, either manually or using the WPS button.
Self PIN Code	Displays the WPS PIN code of the device.
SSID	Displays the SSID of the device.
Authentication Mode	Displays the wireless security authentication mode of the device.
Authentication Key	Displays the wireless security authentication key.
Configuration Mode	The configuration mode of the device's WPS setting is displayed here. "Registrar" means the device acts as an access point for a wireless client to connect to and the wireless client(s) will follow the device's wireless settings.

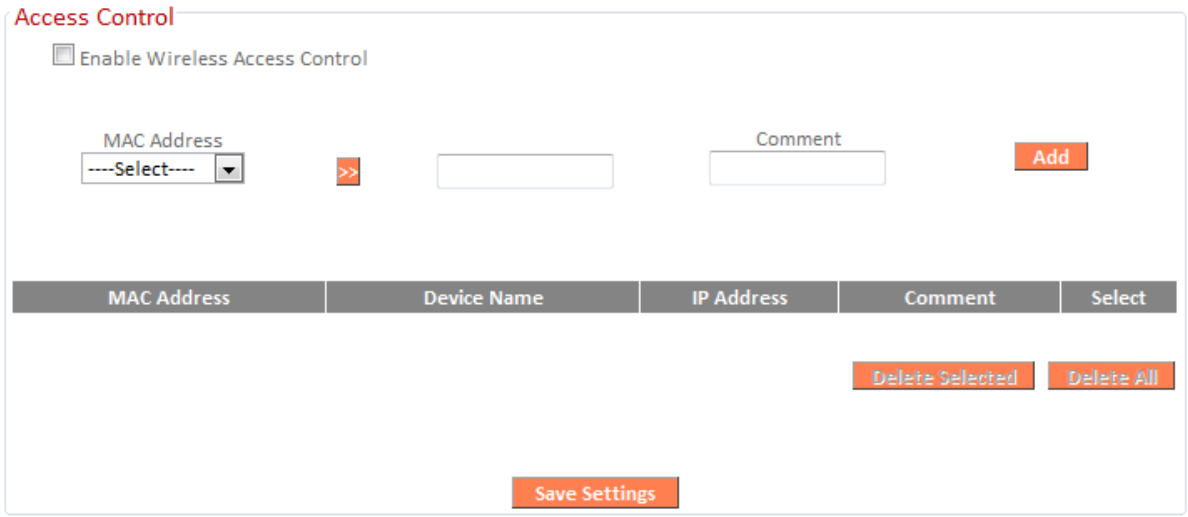
Configure via Push Button	Click “Start PBC” (Push-Button Configuration) to activate WPS on the access point. WPS will be active for 2 minutes.
Configure via Client PIN Code	Enter the wireless client’s PIN code here and click “Start PIN” to activate PIN code WPS. Refer to your wireless client’s documentation if you are unsure of its PIN code.

III-3-5-4. Access Control

Access Control is a security feature that can help to prevent unauthorized users from connecting to your wireless router.

This function allows you to define a list of network devices permitted to connect to the BR-6428nS V3/BR-6228nS V3. Devices are each identified by their unique MAC address. If a device which is not on the list of permitted MAC addresses attempts to connect to the BR-6428nS V3/BR-6228nS V3, it will be denied.

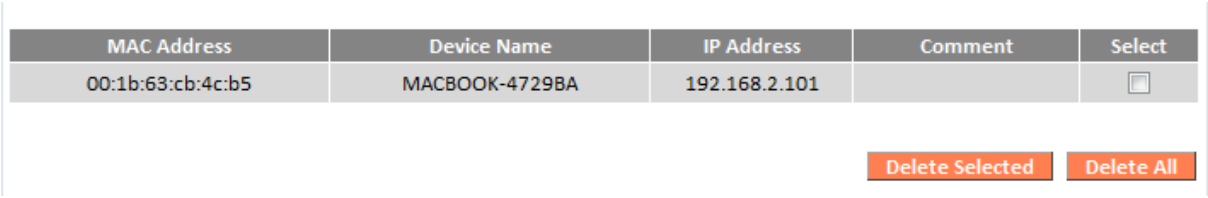
To enable this function, check the box labeled “Enable Wireless Access Control”.



MAC address	Select a PC name from the drop-down list and click “>>” to add enter it into the blank field to the right. Click “Refresh’ in the drop-down menu to refresh the list of available MAC addresses. If the address you wish to add is not listed, enter

	it manually. Enter a MAC address of computer or network device manually without dashes or colons e.g. for MAC address ‘aa-bb-cc-dd-ee-ff’ enter ‘aabbccddeeff’.
Comment	Enter a comment for reference/identification consisting of up to 16 alphanumerical characters.
Add	Click “Add” to add the MAC address to the MAC address filtering table.

MAC address entries will be listed in the table as shown below. Select an entry using the “Select” checkbox.

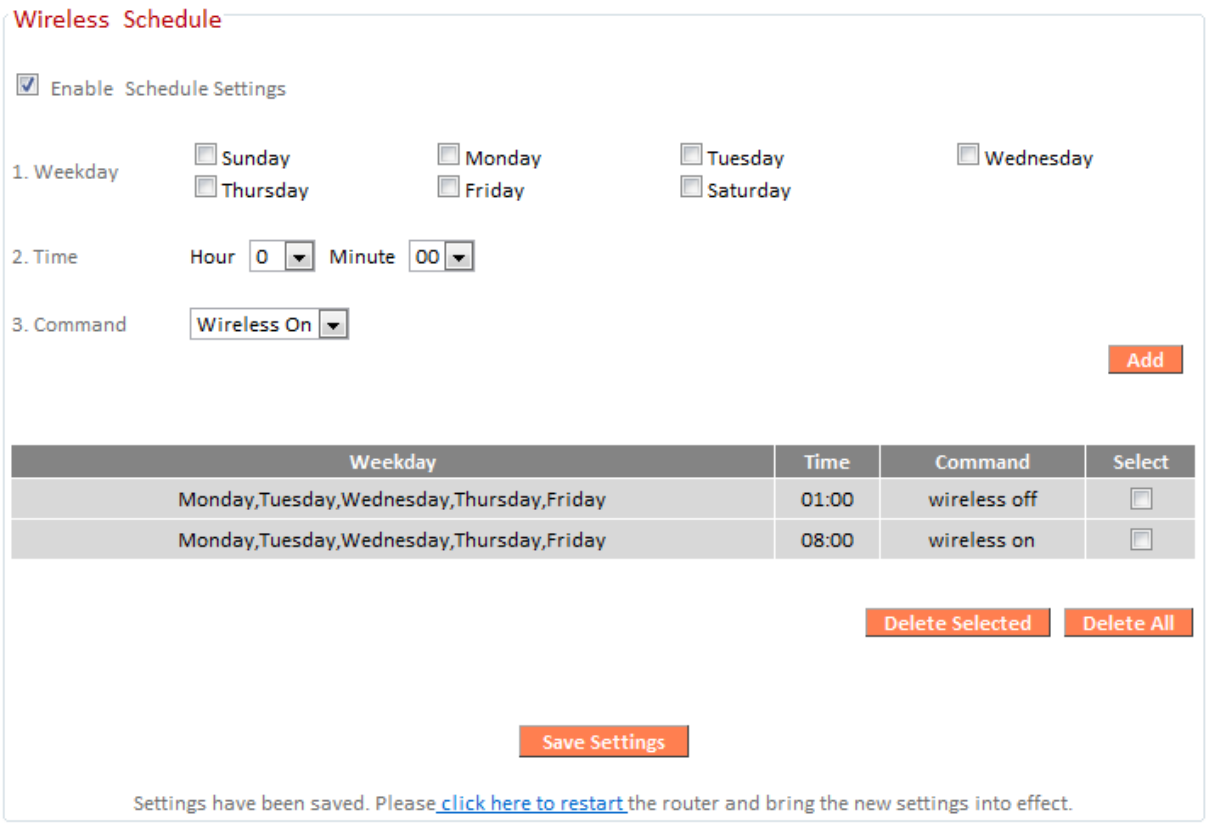


Delete Selected/ Delete All	Delete selected or all entries from the table.

III-3-5-5. Schedule

The schedule feature allows you to automate the wireless radio to switch on/off at specified times. Multiple schedules can be configured. Check/uncheck the box “Enable Schedule Settings” to enable/disable the wireless on/off scheduling function.

The BR-6428nS V3/BR-6228nS V3 must remain connected to the Internet and use an NTP server for the schedule feature to function correctly.



Wireless scheduling can save energy and increase the security of your network.

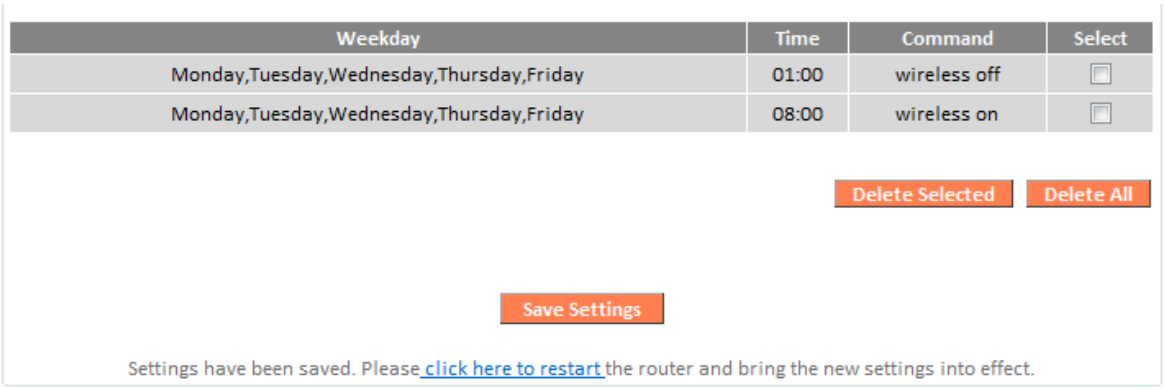
1. Use the checkboxes to select which day(s) to include in the schedule.

2. Specify a time (hour and minute) for the schedule using the drop-down menu.

3. Select which command applies to this schedule from the drop-down menu, either “Wireless On” or “Wireless Off”.

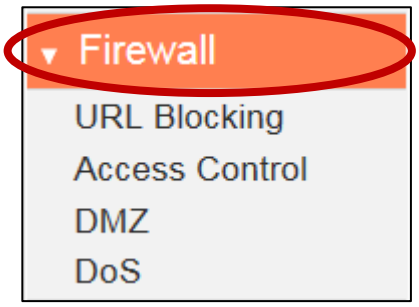
Add	Add the schedule to the table of active schedules.

Active schedules will be displayed in the table as shown below. Select an entry using the “Select” checkbox.



Delete Selected/ Delete All	Delete selected or all entries from the table.

III-3-6. Firewall



The “Firewall” menu provides access to URL blocking, access control, DMZ and DoS functions to improve the security of your wireless network.

SPI firewall	Enable or disable the Stateful Packet Inspection (SPI) firewall.

III-3-6-1. URL Blocking

This function can block Internet access by either specific URLs or keywords. Check/uncheck the “Enable URL Blocking” box to enable/disable URL blocking.