



LEGUANG N800 Wireless Router Configuration Guide

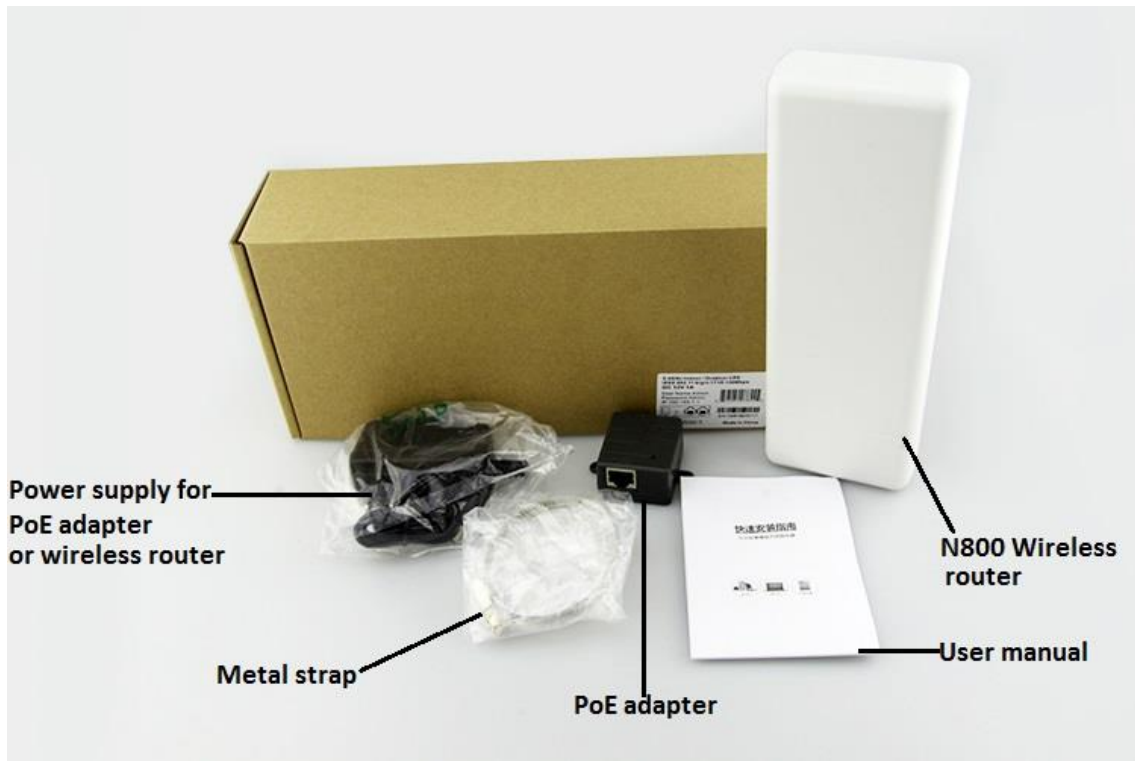
ActForNet Technologies Inc.

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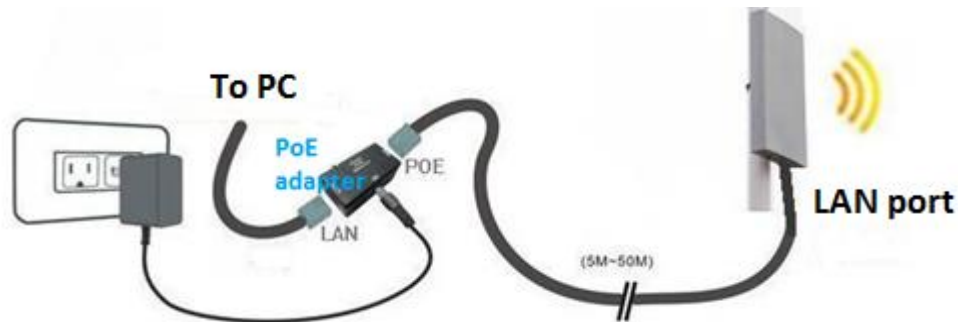
1. What is included



2. Installation Guide

2.1 How to connect

N800 comes with 2 network ports, one of which (beside the power supply plug) is intended to connect local PC or switches and the other is intended to connect service provider to upper level router. N800 can be powered using the DC power supply shipped with the box or using Power over Ethernet (PoE) through LAN port. Using power supply is very straightforward. Just plug the jack of the power supply into the power outlet on the wireless router. When you install N800 outdoor and there is no power outlet around, PoE is a good solution. The black adapter is PoE power supply. It comes with 2 ports: POE and LAN. LAN is used to connect the PC and POE is used to connect to the LAN port of N800.

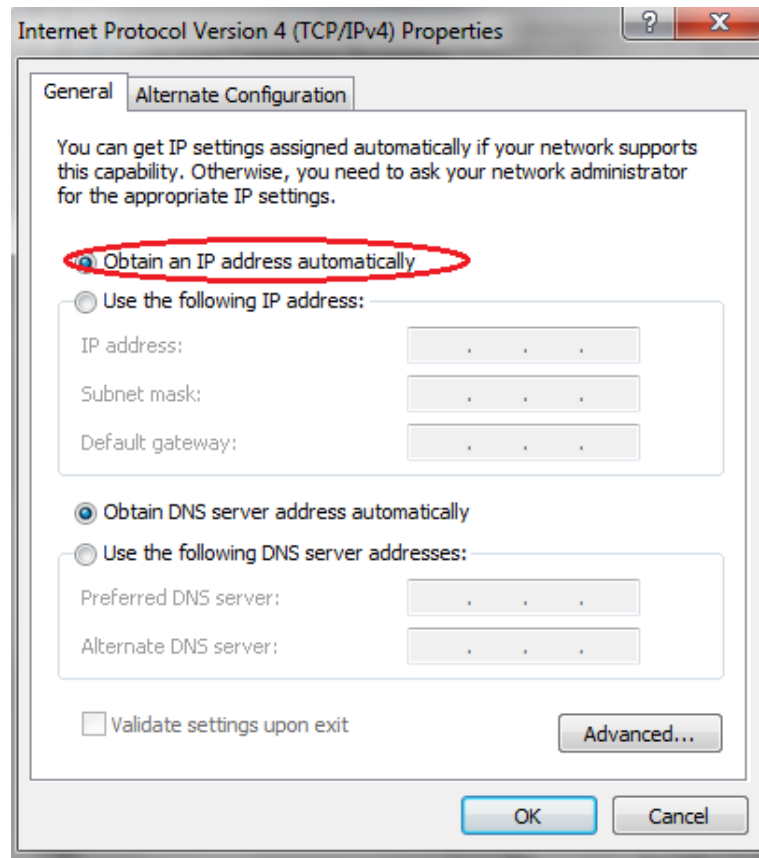


2.2 How to reset

In some cases, you may need to factory reset the system. For example, you forget your password. After the system has boot up which takes about 1 minute, press the RESET button which is located between the power supply plug and LAN port(see diagram above) for around 15 seconds before release it, the system will be reset after reboot with default configuration.

2.3 How to configure your PC for initial setup

The default IP address of the wireless router LAN port is 192.168.1.1. Since DHCP server on LAN port is enabled by default. You can simply enable DHCP on the PC connecting to the LAN port of the wireless router and the PC will get IP address automatically.



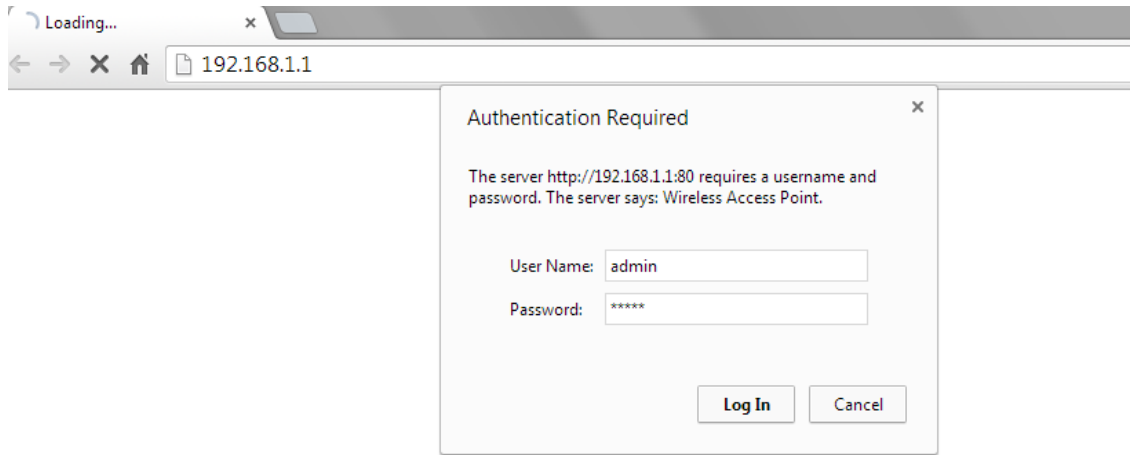
2.4 Login to the wireless router

The factory default IP address: 192.168.1.1

Default username: admin

Default password: admin

Open your browser and type the default IP into the address field, and enter the default user credential as prompted, you should be able access the admin GUI of the wireless router.



3. Wireless Router Configuration

3.1 Wireless Router Operating Modes

LEGUANG N800 supports three operation modes:

- **Gateway Mode:** In this mode, the device works as a router, connecting to Internet with WAN port via ADSL/Cable Modem. Local PCs are connected to the router with LAN port or WiFi. Network Address Translation (NAT) is enabled. Local PCs share the same IP to ISP through WAN port. WAN port supports PPPOE, DHCP client or static IP. DHCP server on LAN port is enabled by default to assign IP address to local PCs. With outdoor high gain antenna, N800 can also connect the remote network together to share the Internet

connection. It is a very good solution for suburbs or rural area to access Internet. This is the default mode of the equipment.



- **Bridge Mode:** In this mode, all Ethernet ports and wireless interface are bridged together so both network ports can be used to connect local PC. NAT function is disabled. All the WAN related function and firewall are not supported. DHCP server on LAN port can be enabled as needed. The device is essentially used as an access point (AP).

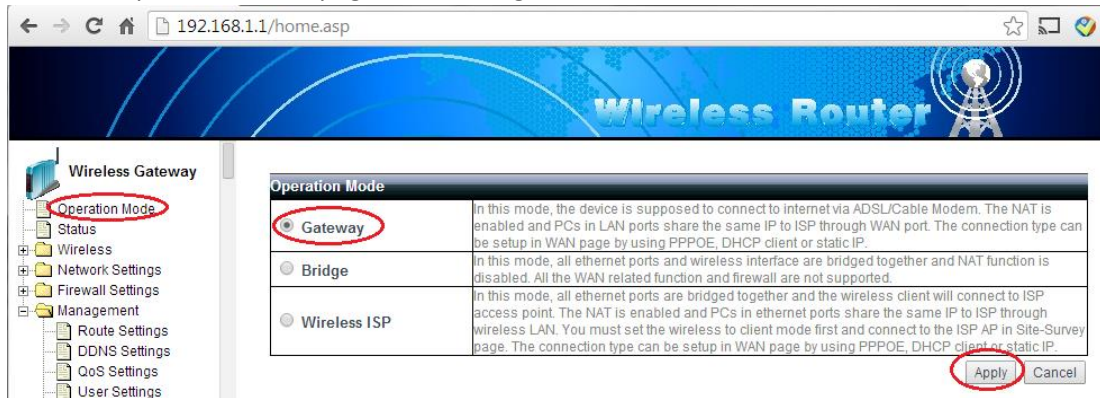


- **Wireless ISP:** In this mode, the device works as a wireless client and access point at the same time. It acts as a wireless client to connect to ISP. It also acts as an access point to connect local PCs with WiFi. All Ethernet ports are bridged together so both network ports can be used to connect local PC. The NAT is enabled and all local PCs share the same IP address to access ISP. The difference between Wireless ISP mode and Gateway mode is that Gateway mode uses wired connection while Wireless ISP mode wireless connection to access the service provider.



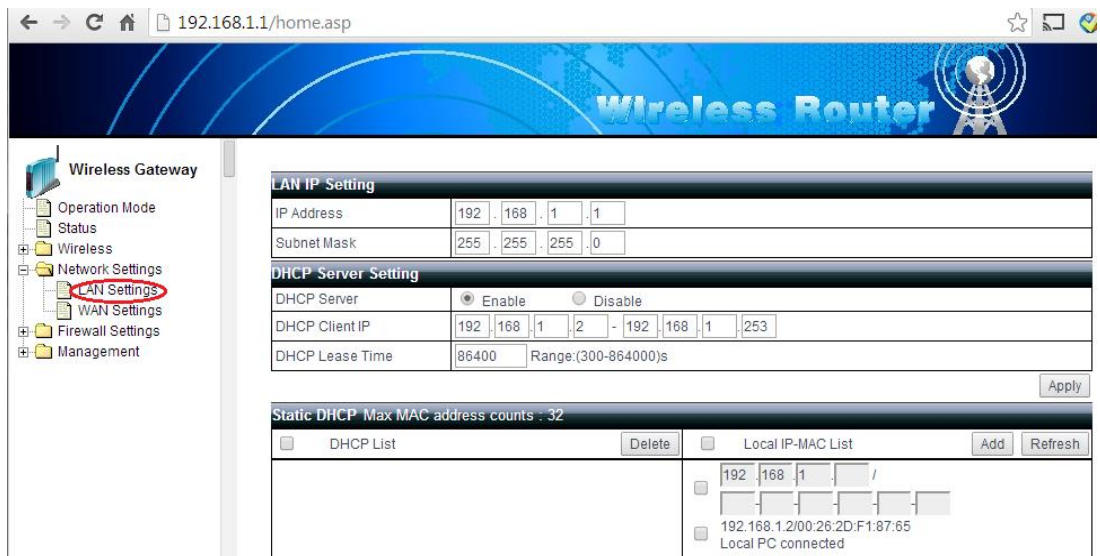
3.2 Gateway Mode configuration

1. Gateway mode is the default operating mode. If you are running a brand new system, you don't have to make any change to be in this mode. Otherwise you can switch to Gateway mode on operation mode page as following:



2. Configure the LAN settings

In Gateway mode, wireless router can be used as a DHCP server to assign IP address to PCs on local network, either wired or wireless. It is recommended to use the default setting and enable DHCP to avoid IP address conflict.



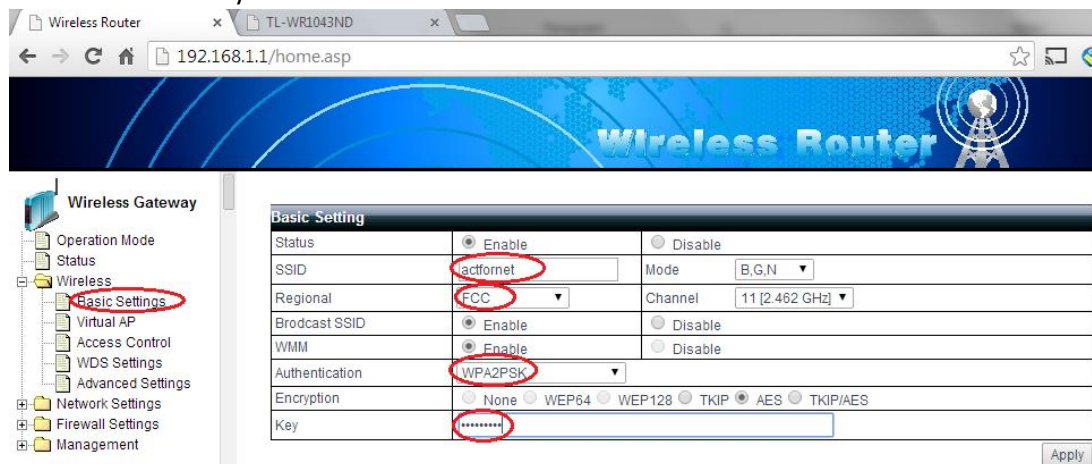
3. Configure WAN settings

WAN is the port that connects to the service providers and it has to be configured to access the Internet. Wireless router supports Dynamic IP, PPPoE, Static IP or PPTP. Pick the appropriate the settings according to the service provider requirement. For most home users, either PPPoE(ADSL) or dynamic IP (cable modem) should be used.

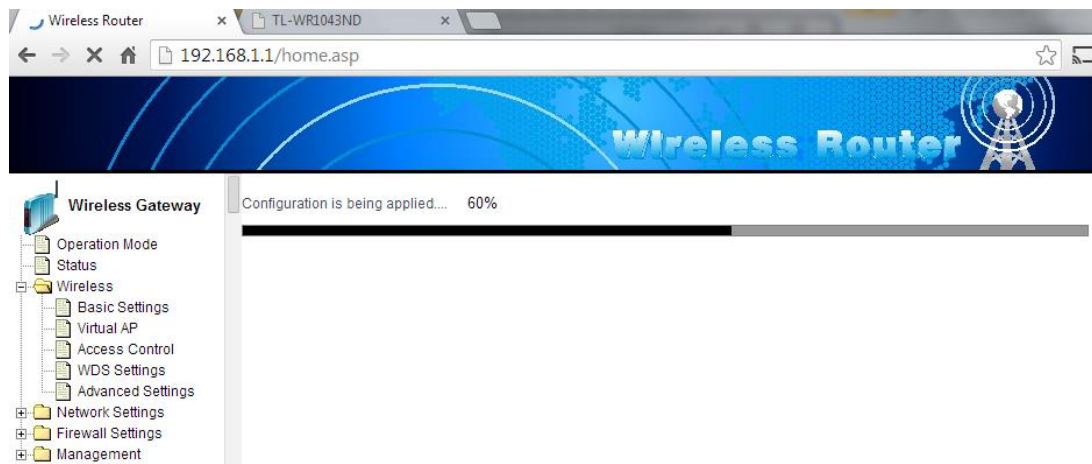


4. Wireless settings

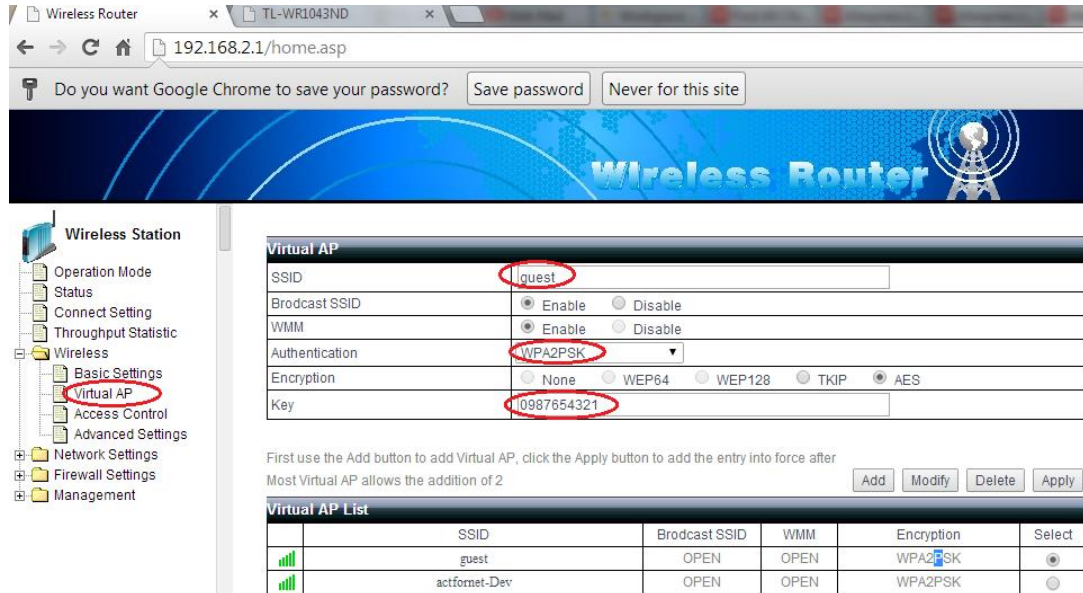
At a minimum, you need to configure the SSID(network name), region, authentication scheme and the key.



After you click apply, the system will take a few seconds to make the new settings take effect:



In some cases, you may want to set up virtual access point to separate the wireless network. N800 supports up to 2 virtual access points. Click “Virtual AP”, supply the SSID, authentication scheme and key and then click “add”. After you click “Apply”, the system will reboot with newly added virtual access points:

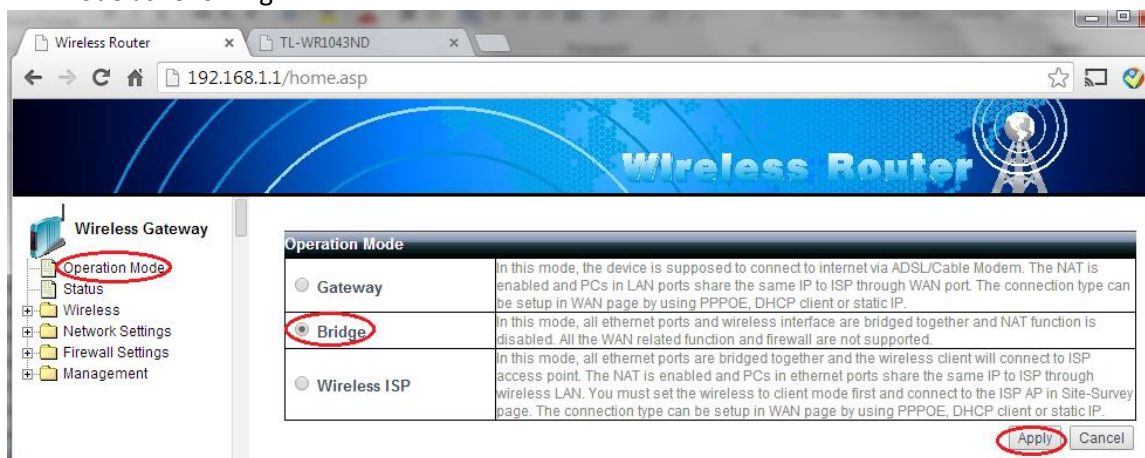


- Now you should be able to see the wireless network you just configured from your PC or tablet, smart phones, etc. Click the network and supply the password/key you just configured to access the network.

3.3 Bridge Mode configuration

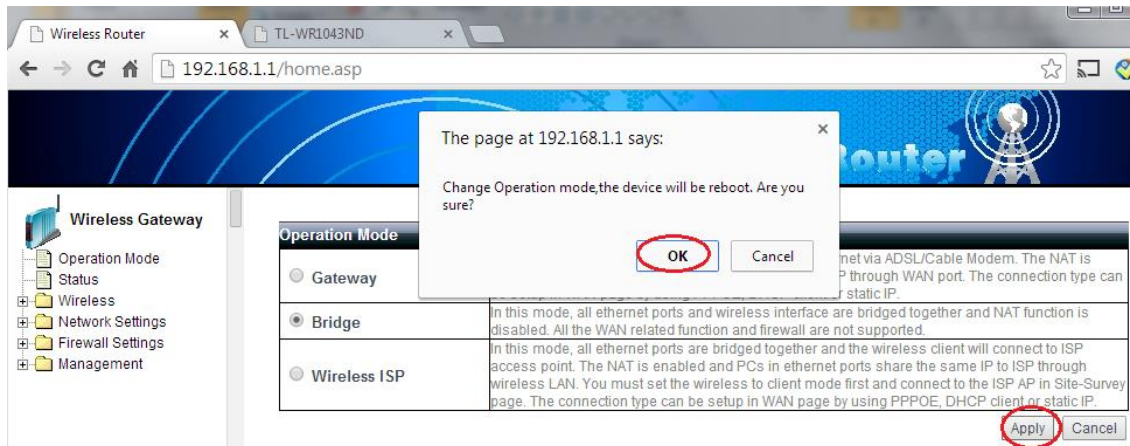
- Switch to bridge mode

Since the default mode is not bridge mode, you need to manually change the operating mode as following:

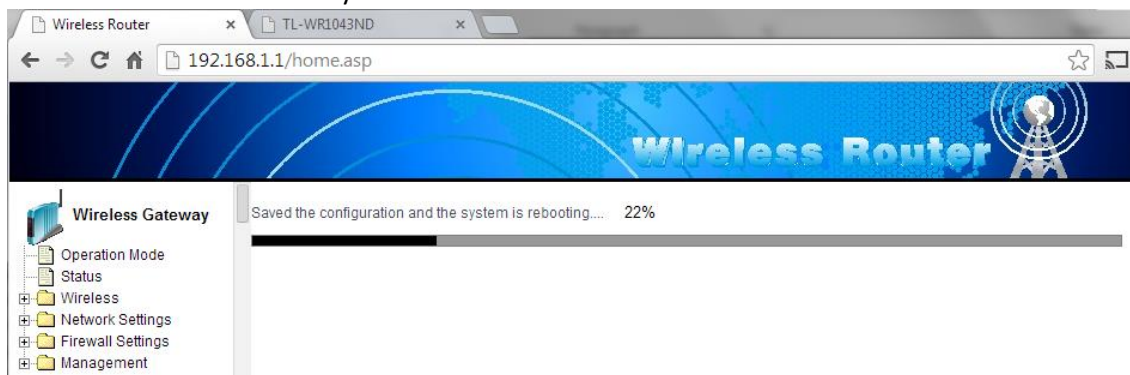


After you click “Apply”, the system will ask you to confirm whether to reboot the system to make the change take effect.

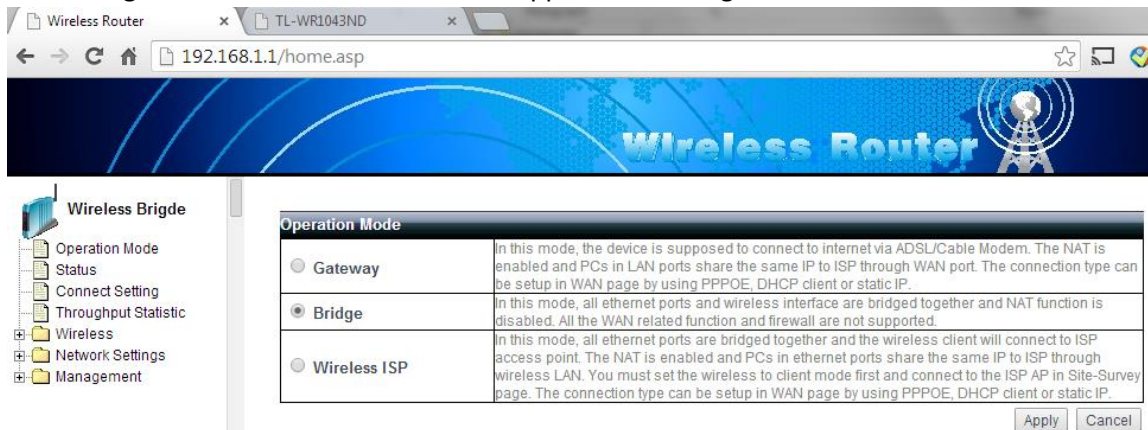
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Please OK and wait for the system to come back after reboot.



2. After the system switches to bridge mode, the GUI will be a bit different because some settings like WAN and Firewall are not applicable in bridge mode.



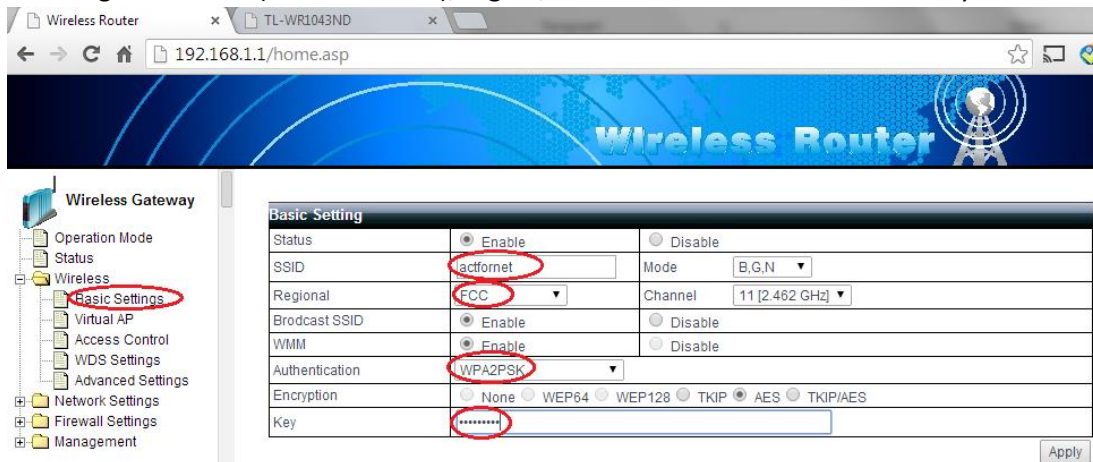
3. Network settings

Only LAN port can be configured in bridge mode. DHCP is disabled by default, which works for most cases. But you can enable it if desired:

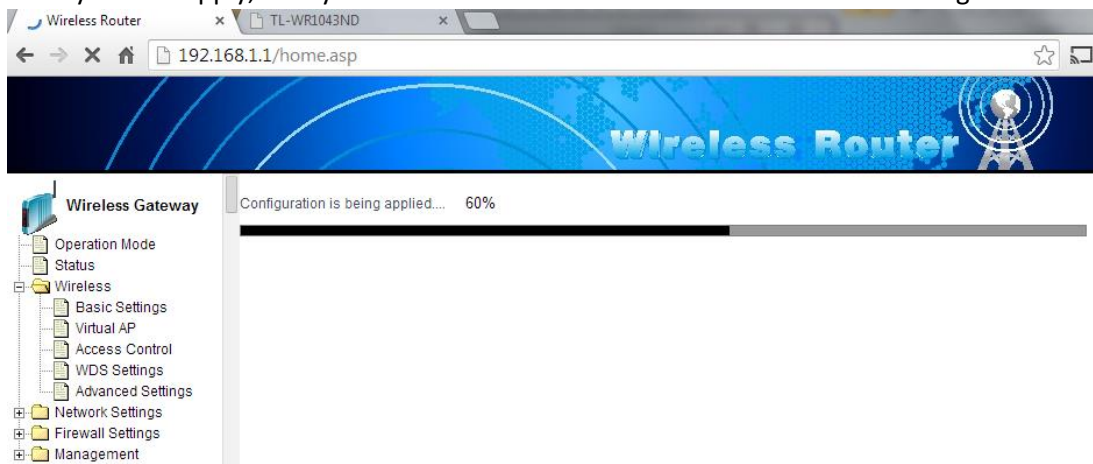


4. Wireless settings

Wireless settings in bridge mode is no difference than Gateway mode. At a minimum, you need to configure the SSID(network name), region, authentication scheme and the key.



After you click apply, the system will take a few seconds to make the new settings take effect:



In some cases, you may want to set up virtual access point to separate the wireless network. N800 supports up to 2 virtual access points. Click “Virtual AP”, supply the SSID, authentication scheme and key and then click “add”. After you click “Apply”, the system will reboot with newly added virtual access points:

Wireless Router configuration page showing Virtual AP settings. The SSID is 'guest', Authentication is 'WPA2PSK', and the Key is '0987654321'. The Virtual AP List shows two entries: 'guest' and 'actfor-net-Dev'.

SSID	Broadcast SSID	WMM	Encryption	Select
guest	OPEN	OPEN	WPA2PSK	<input checked="" type="radio"/>
actfor-net-Dev	OPEN	OPEN	WPA2PSK	<input type="radio"/>

- Now you should be able to see the wireless network you just configured from your PC or tablet, smart phones, etc. Click the network and supply the password/key you just configured to access the network.

3.4 Wireless ISP mode

- Switch to Wireless ISP mode

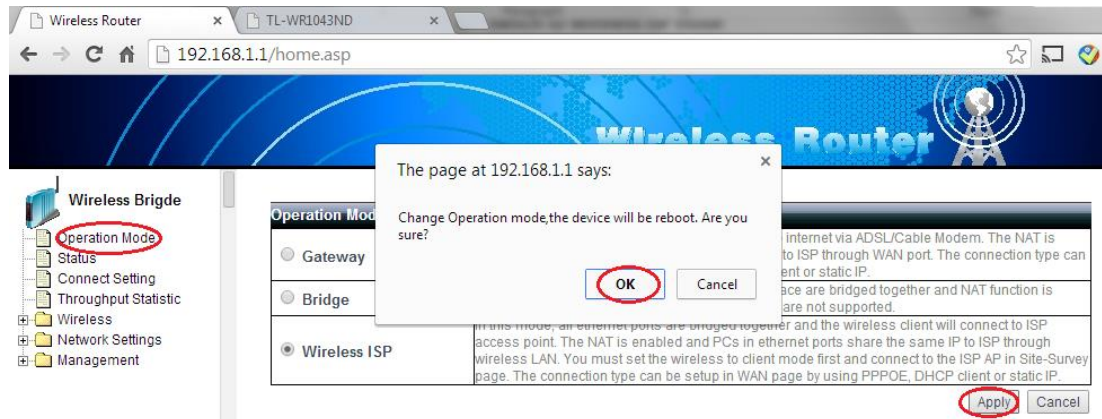
Since the default mode is not bridge mode, you need to manually change the operating mode as following:

Wireless Router configuration page showing Operation Mode settings. The Wireless ISP mode is selected. The Apply button is circled.

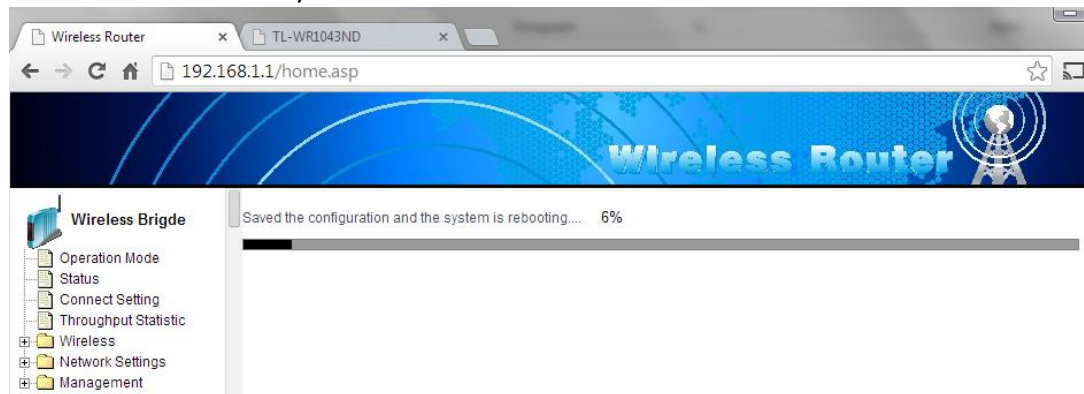
Operation Mode	Description
Gateway	In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs in LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPoE, DHCP client or static IP.
Bridge	In this mode, all ethernet ports and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.
Wireless ISP	In this mode, all ethernet ports are bridged together and the wireless client will connect to ISP access point. The NAT is enabled and PCs in ethernet ports share the same IP to ISP through wireless LAN. You must set the wireless to client mode first and connect to the ISP AP in Site-Survey page. The connection type can be setup in WAN page by using PPPoE, DHCP client or static IP.

After you click “Apply”, the system will ask you to confirm whether to reboot the system to make the change take effect.

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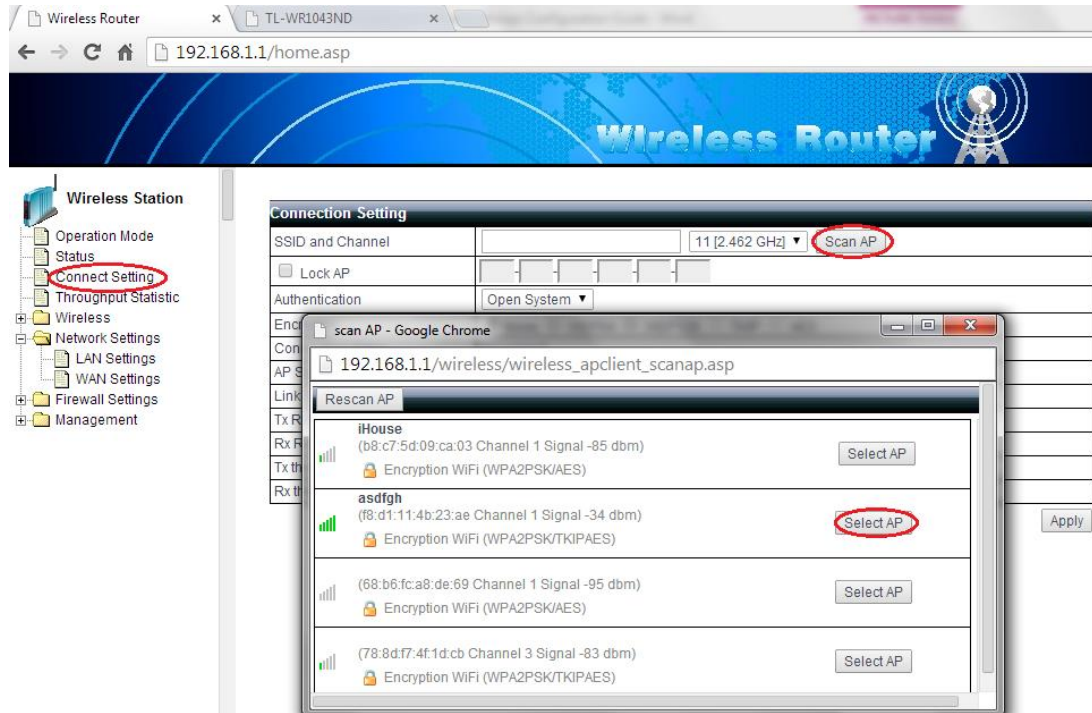


Please OK and wait for the system to come back after reboot.

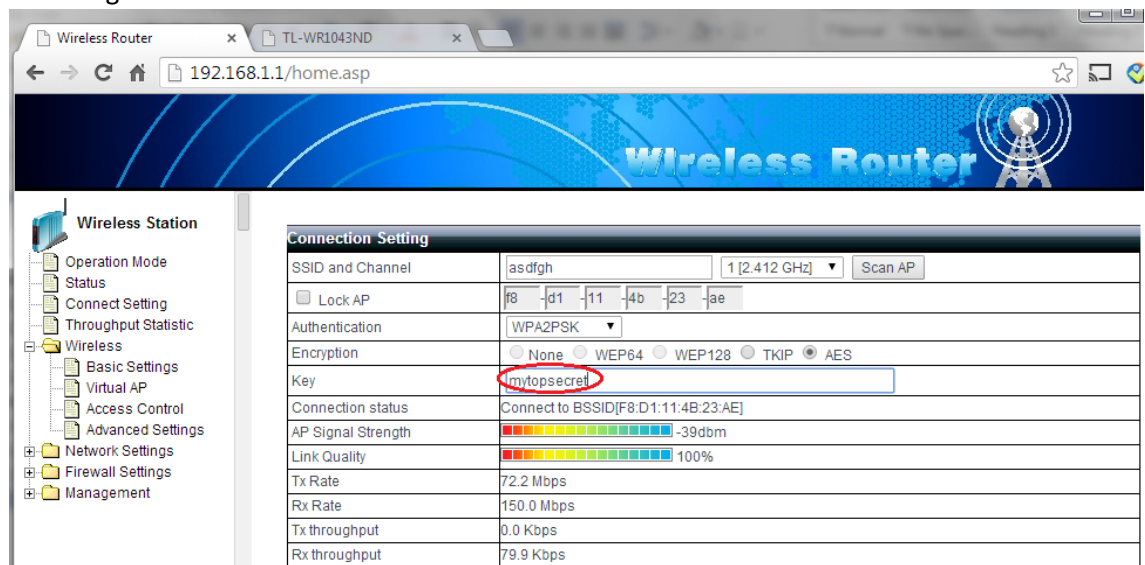


2. Wireless client setting

In wireless ISP mode, the wireless router acts as a wireless client to the access point of the service provider. Click "Connect Setting" that leads to the connection setting page where all the wireless client related settings are configured. Click "ScanAP" and select the desired access point from the list as below:



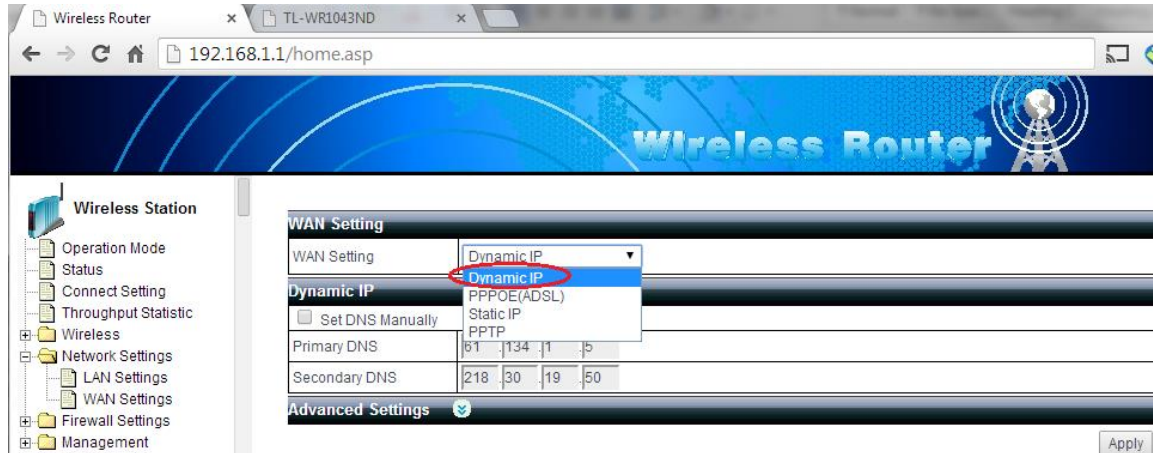
After you select the AP from the list, the Authentication field will be auto-populated accordingly. You just need to type in the password that is supplied by your service provider. After you click “Apply”, the system will reboot to make the change take effect. If the setting is correct, the wireless router should connect to the service provider access point like following:



3. WAN setting

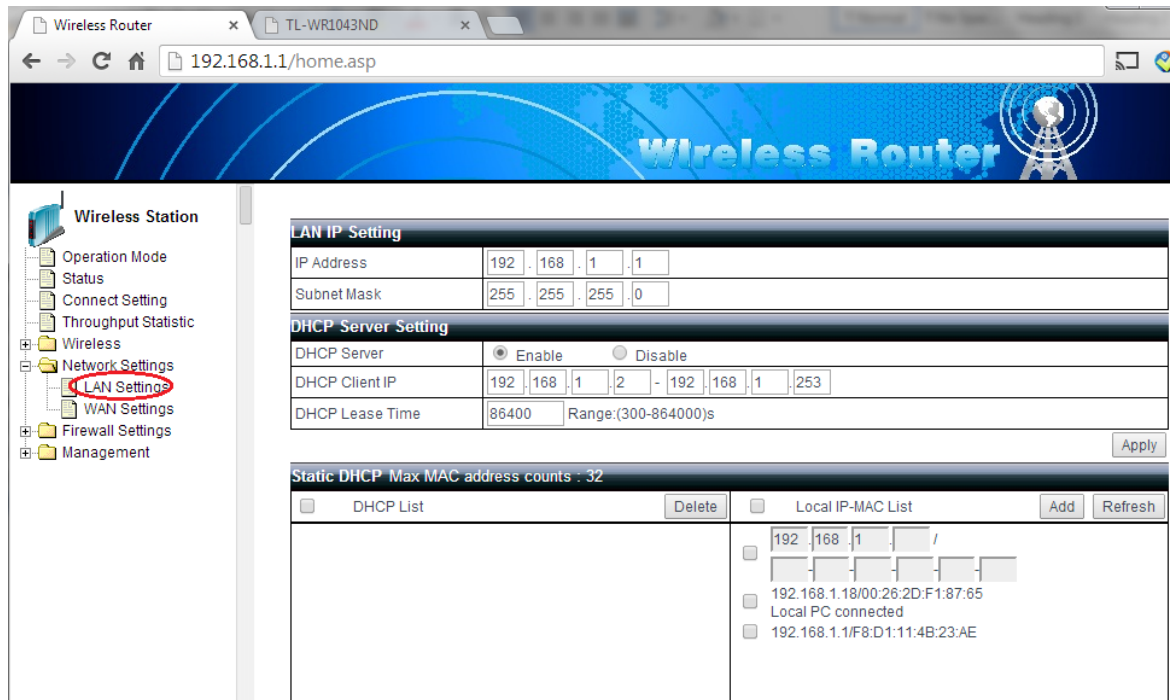
In wireless ISP mode, the WAN port refers to the logic port the wireless client uses to connect to the service provider. In other words, the WAN port of the wireless router is the only port visible from the service provider. Please keep it in mind that wireless router has NAT enabled by

default and all the PCs on the local network will share the WAN IP address to access Internet. In most case the default setting “dynamic IP” should work. But we can change it to static IP or PPPoE as well if needed.



4. LAN settings

LAN port is intended to connect all local PCs. Usually you need to enable DHCP server to automatically assign IP address to local PCs, like following:



5. Wireless settings

Settings in this section are used to control how local PCs, tablets or smart phone connect to the wireless router using WiFi. The setting is the same as Gateway mode or Bridge mode. At a minimum, you need to configure the SSID(network name), region, authentication scheme

and the key.

Basic Setting		
Status	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
SSID	actfornet	Mode B,G,N
Regional	FCC	Channel 11 [2.462 GHz]
Broadcast SSID	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
WMM	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
Authentication	WPA2PSK	
Encryption	<input type="radio"/> None <input type="radio"/> WEP64 <input type="radio"/> WEP128 <input type="radio"/> TKIP <input checked="" type="radio"/> AES <input type="radio"/> TKIP/AES	
Key	*****	

Apply

After you click apply, the system will take a few seconds to make the new settings take effect:

Configuration is being applied.... 60%

In some cases, you may want to set up virtual access point to separate the wireless network. N800 supports up to 2 virtual access points. Click "Virtual AP", supply the SSID, authentication scheme and key and then click "add". After you click "Apply", the system will reboot with newly added virtual access points:

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The screenshot shows the configuration page for a Wireless Router (TL-WR1043ND) at the address 192.168.2.1/home.asp. The left sidebar shows the 'Wireless' menu expanded, with 'Virtual AP' selected. The main content area is titled 'Virtual AP' and contains the following settings:

- SSID: guest
- Broadcast SSID: ☒ Enable ☐ Disable
- WMM: ☒ Enable ☐ Disable
- Authentication: WPA2PSK
- Encryption: ☐ None ☐ WEP64 ☐ WEP128 ☐ TKIP ☒ AES
- Key: 10987654321

Below the settings, there is a note: "First use the Add button to add Virtual AP, click the Apply button to add the entry into force after. Most Virtual AP allows the addition of 2". Buttons for 'Add', 'Modify', 'Delete', and 'Apply' are present.

The 'Virtual AP List' table shows the following entries:

	SSID	Broadcast SSID	WMM	Encryption	Select
<input checked="" type="checkbox"/>	guest	OPEN	OPEN	WPA2PSK	<input checked="" type="radio"/>
<input checked="" type="checkbox"/>	actfornt-Dev	OPEN	OPEN	WPA2PSK	<input type="radio"/>

- Now you should be able to see the wireless network you just configured from your PC or tablet, smart phones, etc. Click the network and supply the password/key you just configured to access the network. After the wireless connection is up, you should be able to access Internet.