

TABLE OF CONTENT

| | |
|--|-----------|
| 1. ABOUT THIS GUIDE | 3 |
| 1.1 Overview of the User's Guide | 3 |
| 2. INTRODUCTION | 3 |
| 2.1 Overview | 3 |
| 2.2 Features | 3 |
| 2.3 Panel Layout | 4 |
| 2.3.1 Front Panel | 4 |
| 2.3.2 Rear Panel | 5 |
| 3. HARDWARE INSTALLATION | 6 |
| 3.1 Hardware Installation | 6 |
| 3.2 Check the Installation | 6 |
| 3.3 Set up the Computer | 6 |
| 4. CONNECTING TO INTERNET | 8 |
| 4.1 Login Web Interface | 8 |
| 4.2 Changing Password | 9 |
| 4.3 Internet Setup | 10 |
| 4.3.1 DHCP User | 10 |
| 4.3.2 PPPoE User (ADSL) | 11 |
| 4.3.3 Static IP | 12 |
| 4.4 Wireless Setup..... | 12 |
| 4.5 Firmware Upgrade | 13 |
| 5. ADVANCED SETUP | 14 |
| 5.1 Network | 14 |
| 5.1.1 Internet Status | 14 |
| 5.1.2 LAN Status..... | 14 |
| 5.1.3 Internet Setup | 15 |
| 5.1.4 LAN/DHCP Server | 15 |
| 5.2 Wireless | 16 |
| 5.2.1 Wireless Status | 16 |
| 5.2.2 Wireless Setup..... | 17 |
| 5.2.3 Multiple BSS | 17 |
| 5.2.4 Wireless Multibridge | 18 |
| 5.2.5 MAC Authentication | 19 |
| 5.2.6 WDS Setup | 19 |
| 5.2.7 WPS Setup | 20 |
| 5.2.8 Advanced Setup | 20 |

| | |
|-------------------------------------|-----------|
| 5.3 NAT/Routing | 21 |
| 5.3.1 Port Forwarding | 22 |
| 5.3.2 DMZ/Twin IP | 22 |
| 5.3.3 Port Trigger | 22 |
| 5.3.4 Misc Setup | 23 |
| 5.3.5 Routing Table | 23 |
| 5.4 Firewall | 24 |
| 5.4.1 Internet Access Control | 24 |
| 5.4.2 Net Detector..... | 24 |
| 5.4.3 Mgmt Access List..... | 25 |
| 5.4.4 Misc Setup | 25 |
| 5.5 Utility | 26 |
| 5.5.1 VPN Setup | 27 |
| 5.5.2 DDNS..... | 27 |
| 5.5.3 WOL..... | 28 |
| 5.5.4 Host Scan | 28 |
| 5.6 Traffic | 28 |
| 5.6.1 QoS Setup | 29 |
| 5.6.2 Connection Info..... | 30 |
| 5.6.3 Connection Control | 30 |
| 5.6.4 Wired Port Setup | 31 |
| 5.7 System..... | 32 |
| 5.7.1 System Log | 32 |
| 5.7.2 Admin Setup | 32 |
| 5.7.3 Firmware Upgrade | 33 |
| 5.7.4 System Time | 33 |
| 5.7.5 Config Backup/Restore..... | 34 |
| 5.7.6 Misc Setup | 34 |

1. ABOUT THIS GUIDE

Thank you very much for purchasing this N03-R30FV Wireless N Router. This guide will introduce the features of this router and tell you how to connect, use and configure the Router to connect with Internet. Please follow the instructions in this guide to avoid affecting the Router's performance by improper operation.

1.1 Overview of the User's Guide

Introduction. Describes the Router, its appearance and features.

Hardware Installation. Describes the hardware installation and how to set up the computer.

Connecting to Internet. Tells how you can connect your computer to Internet successfully using the Router.

Advanced Settings. Lists all technical functions including Wireless, Network, NAT/Routing, Firewall, Utility, Traffic and System of the Router.

2. INTRODUCTION

2.1 Overview

N03-R30FV is a combined wired/wireless network connection device which integrates the Internet-sharing router and 4-port switch to one. It allows users to access Internet by DHCP/PPPoE/Static IP and can expand the wireless coverage. With Wireless Multibridge, WDS and VPN Server settings, N03-R30FV can be also used as a repeater, a VPN Server and a Wireless AP. Generally, it is a high performance and cost-effective solution for home and small offices.

2.2 Features

- Complies with IEEE 802.11n and IEEE802.11g/b standards.
- Up to 300Mbps wireless data rate.
- Supports PPPoE, Dynamic IP and Static IP broadband functions.
- Provides 64/128-bit WEP, WPA/WPA2 and WPA-PSK/WPA2-PSK (TKIP/AES) encryptions.
- The IP, MAC and URL filtering makes access and time control more flexibly.
- The VPN server can not only protect the privacy of your information, but also simplify network management.
- Repeater function expands the wireless coverage and allows more terminals to access Internet.

- MIMO technology enhances the throughput and wireless coverage.
- Supports WMM for improved audio and video streaming.
- Multi-SSID allows you to create multiple SSIDs for different purpose.
- Smart QoS function can assign bandwidth to PCs equally with just one click.
- Supports WPS (Wi-Fi Protected Setup) for one-key fast security setup.

2.3 Panel Layout

2.3.1 Front Panel

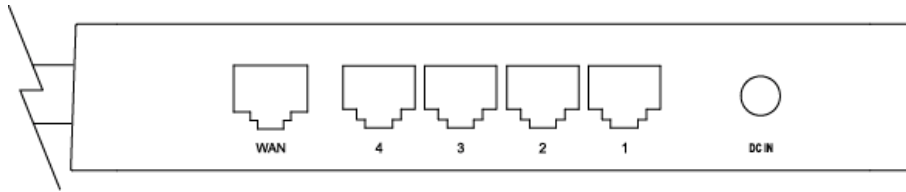
The front panel of N03-R30FV Wireless Router consists of 5 LEDs, which is designed to indicate connection status.



| | |
|--------------------|--|
| POWER | This indicator lights blue when the hub is receives power, otherwise it is off. |
| CPU | This indicator keeps lighting blue when Router powered on. |
| WLAN | This indicator lights blue when there are wireless devices connected and transmitting data to WLAN Router. |
| WAN | When the WAN port is connected successfully the indicator lights blue. |
| | During transmitting or receiving data through the WAN port the indicator blinks blue. |
| 1/2/3/4 LAN | When one of the LAN ports has a successful connection, the corresponding indicator lights blue. |
| | During transmitting or receiving data through the LAN port the indicator blinks blue. |

2.3.2 Rear Panel

The figure below shows the rear panel of the Router.



| | |
|--------------------|---|
| DC IN | The Power socket is where you will connect the power adapter. |
| RST/WPS | RST: With the router powered on, press and hold the button until the CPU LED becomes quick-flash from slow-flash. And then release the button and wait the router to reboot to its factory default settings. |
| | WPS: If you have client devices you can press this button to quickly establish a router and client devices and automatically configure wireless security for your wireless network. |
| WAN | This port is where you will connect the DSL/cable Modem, or Ethernet. |
| 1/2/3/4 LAN | This port connects the router to local PC. |

Note: Press and hold RST/WPS button for less than 5 seconds, the router will enable WPS function, and CPU LED indicator keeps ON. Press and hold WPS/RST button for more than 5 seconds, the router will enable RESET function, and CPU LED indicator keeps lighting.

3. HARDWARE INSTALLATION

3.1 Hardware Installation

For those computers you wish to connect with Internet by this router, each of the computers must be properly connected with the router through provided UTP LAN Cables.

1. Connect the provided UTP LAN cable to one of the router's LAN port.
2. Connect the other end of the UTP LAN cable to your computer's LAN port.
3. Connect the second UTP LAN cable to router's WAN port.
4. Connect the other end of the UTP LAN cable to ADSL or Modem port.
5. Plug the Power Adapter into the Router and then into an outlet.
6. Turn on your computer.
7. Check and confirm that the Power LED and LAN LED on the router are **ON**.

3.2 Check the Installation

The control LEDs of the WLAN Router are clearly visible and the status of the network link can be seen instantly:

1. With the power source on, once the device is connected to the broadband modem, the Power, CPU, LAN, WLAN and WAN port LEDs of the WLAN Router will blink for one time indicating a normal status.
2. When the WAN Port is connected to the ADSL/Cable modem, the WAN LED will light up.
3. When the LAN Port is connected to the computer system, the LAN LED will light up.

3.3 Set up the Computer

The default IP address of the Router is 192.168.1.1, the default Subnet Mask is 255.255.255.0. Both of these parameters can be changed as you want. In this guide, we will use the default values for description.

Connect the local PC to the LAN port on the Router. There are then two ways to configure the IP address for your PC.

◆ Configure the IP address manually

Configure the network parameters. The IP address is 192.168.1.xxx ("xxx" range from 2 to 254). The Subnet Mask is 255.255.255.0 and Gateway is 192.168.1.1 (Router's default IP address).

◆ Obtain an IP address automatically

Set up the TCP/IP Protocol in **Obtain an IP address automatically** mode on your PC.

Now, you can run the Ping command in the **command prompt** to verify the network connection between your PC and the Router. Open a command prompt, and type in **ping 192.168.1.1**, then press **Enter**.

```

C:\Documents and Settings\Administrator>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Documents and Settings\Administrator>_

```

If the result displayed is similar to that shown in above figure, it means that the connection between your PC and the Router has been established.

```

C:\Documents and Settings\Administrator>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Documents and Settings\Administrator>_

```

If the result displayed is similar to that shown in the above figure, it means that your PC has not connected to the Router successfully. Please check it following below steps:

1. is the connection between your PC and the Router correct?

If correct, the LAN port on the Router and LED on your PC's adapter should be lit.

2. Is the TCP/IP configuration for your PC correct?

Since the Router's IP address is 192.168.1.1, your PC's IP address must be within the range of 192.168.1.2 ~ 192.168.1.254, the Gateway must be 192.168.1.1.

4. CONNECTING TO INTERNET

This chapter introduces how to configure the basic functions of your Wireless N Router so that you can surf the Internet.


4.1 Login Web Interface

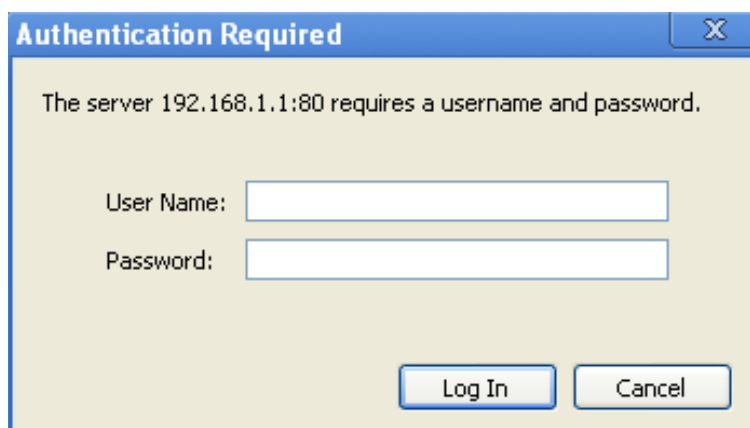
Connect to the Router by typing 192.168.1.1 in the address field of Web Browser. Then press **Enter** key.



It will show up the following page:



Click **Setup Tool** icon  to enter the Router's setting interface. Then below window will pop up that requires you to enter valid User Name and Password.



Enter **admin** for User Name and Password, both in lower case letters. Then click **Log In** button or press **Enter** key.

Note: If the above screen does not prompt, it means that your web-browser has been set to using a proxy. Go to **Tools menu>Internet Options>Connections>LAN Settings**, in the screen that appears, cancel the **Using Proxy checkbox**, and click **OK** to finish it.

Now, you have got into the Router's configuration interface. First, you can see the **Status Summary** of the Router:

The screenshot shows the NETPRO router configuration interface. The top navigation bar includes the NETPRO logo, a Refresh button, and a Save button. The left sidebar, titled 'Config Explorer', shows a tree view with 'Basic Setup' expanded, containing 'Status Summary', 'Internet Setup', 'Wireless Setup', and 'Firmware Upgrade'. Below this is 'Advanced Setup' with sub-items: Network, Wireless, NAT/Routing, Firewall, Utility, Traffic, and System.

The main content area is titled 'Status Summary' and is divided into several sections:

- Internet Status**

| | |
|---------------------------|-------------------------------------|
| Internet(WAN) Port Status | WAN port is disconnected |
| Internet Connection Type | DHCP User(Dynamic IP) WAN IP |
| Internet connection time | 0 Hour 0 Min 0 Sec |
- LAN Configuration**

| | |
|--------------------|-----------------------------|
| LAN IP | 192.168.1.1 |
| DHCP Server Status | Running |
| DHCP IP Pool | 192.168.1.2 - 192.168.1.254 |
- Wireless Status**

| | |
|----------------------|-----------------------------------|
| Wireless Mode | Running - AP Mode - No Encryption |
| SSID(Network Name) | NETPRO_000000 |
| Wireless Multibridge | Stopped |
- Miscellaneous**

| | |
|-------------------------|--|
| Firmware Version | 3.1 |
| Remote Mgmt Information | Remote Management is not configured. You can set up this at [Mgmt Access List] page |
| System run time | 0 Hour 14 Min 14 Sec |

On the left, it is the guide bar:

The 'Config Explorer' sidebar shows a tree view of the router's configuration options:

- Basic Setup
 - Status Summary
 - Internet Setup
 - Wireless Setup
 - Firmware Upgrade
- Advanced Setup
 - Network
 - Wireless
 - NAT/Routing
 - Firewall
 - Utility
 - Traffic
 - System

4.2 Changing Password

Now, we recommend that you change the password to protect the security of your Router.

Please go to **System—Admin Setup** change the password required to log into your Router.

Login Account Setup

| | |
|-----------------------|----------------------------------|
| Current ID & password | ID - admin Password - Configured |
| New Login ID | <input type="text"/> |
| New Password | <input type="text"/> |
| Re-type New Password | <input type="text"/> |

New Login ID: type in the name that you use to login the web interface of the router or change a new one.

New Password: new password is used for administrator authentication.

Re-type New Password: new password should be re-entered to verify its accuracy.

Note: password length is 8 characters maximum, characters after the 8th position will be truncated.

4.3 Internet Setup

Click **Internet Setup** to configure the parameters for Internet Network which connects to your wireless Router WAN port. WAN access modes include DHCP, PPPoE and Static IP.

DHCP User (FTTH, Optic LAN, Cable Modem, VDSL, LAN, IP ADSL)

PPPoE User(ADSL)

Static IP User

MAC Address Clone - - - - -

Allow private IP.

Restart DHCP client if the physical WAN link is reconnected.

MTU

Set DNS server manually

Primary DNS . . .

Secondary DNS . . .

4.3.1 DHCP User

If you choose **DHCP User**, your computer will get dynamic IP address from your ISP (Internet Service Provider) operator automatically.

Internet Setup

DHCP User (FTTH, Optic LAN, Cable Modem, VDSL, LAN, IP ADSL)
 PPPoE User(ADSL)
 Static IP User

MAC Address Clone - - - - -

Allow private IP.
 Restart DHCP client if the physical WAN link is reconnected.
 MTU
 Set DNS server manually
 Primary DNS . . .
 Secondary DNS . . .

4.3.2 PPPoE User (ADSL)

Point-to-Point Protocol over Ethernet (PPPoE) is a virtual private and secure connection between two systems that enables encapsulated data transport. It relies on two widely accepted standards: PPP and Ethernet. It connects users through an Ethernet to the Internet with a common broadband medium, such as wireless device or cable modem. All the users over the Ethernet can share a common connection. If you use ADSL virtual dial-up to connect Internet, please choose this option.

DHCP User (FTTH, Optic LAN, Cable Modem, VDSL, LAN, IP ADSL)
 PPPoE User(ADSL)
 Static IP User

User ID

Password

Select ISP Normal Racer Chinanet

MAC Address Clone - - - - -

MTU
 LCP option Interval Sec Count
 Disconnect PPP session if idle time is longer than Min
 Connect On Demand Connect Manually
 Set DNS server manually
 Primary DNS . . .
 Secondary DNS . . .

PPPoE Scheduler Start Stop
 System Time Trying to get system time from time server.
 Add ON Schedule : - :

| Start Time | End Time | Status | <input type="button" value="Del"/> |
|-----------------|----------|--------|------------------------------------|
| PPPoE ON always | | | |

User ID: a specific valid ADSL user name provided by your ISP.

Password: the corresponding valid password provided by your ISP.

4.3.3 Static IP

Input the IP address that provided by your ISP (Internet Service Provider). If you are not clear about this, please consult with your local ISP.

The screenshot shows a network configuration interface with the following elements:

- Three radio button options: **DHCP User (FTTH, Optic LAN, Cable Modem, VDSL, LAN, IP ADSL)**, **PPPoE User(ADSL)**, and **Static IP User** (which is selected).
- Fields for WAN IP, Subnet Mask, Default Gateway, Primary DNS, and Secondary DNS, each consisting of four input boxes separated by dots.
- An **MTU** checkbox with a value of 1500.
- A **MAC Address Clone** checkbox with a **Search MAC address** button.
- An **Apply** button at the bottom right.

WAN IP: the IP address provided by your ISP.

Subnet Mask: This is used to define the device IP classification for the chosen IP address range. 255.255.255.0 is a typical net mask value for Class C networks. Generally it is provided by your ISP.

Default Gateway: This is the IP address of the host router that resides on the external network and provides the point of connection to the next hop towards the Internet. This can be a DSL modem, Cable modem, or a WISP gateway router. The router will direct all the packets to the gateway if the destination host is not within the local network.

Primary DNS: Domain Name System. Every Internet host must have a unique IP address, also they may have a human-friendly, easy to remember name such as www.yahoo.com. The DNS server converts the user-friendly name into its equivalent IP address. This is provided by your ISP.

Secondary DNS: this is optional.

After you finish the blank that required, you could click **Apply** to make the settings work.

4.4 Wireless Setup

Click **Wireless Setup**, you will see below interface. This webpage shows the basic wireless parameters and wireless authentication methods.

| Wireless Setup | |
|--------------------------------------|---|
| Operation | <input checked="" type="radio"/> Start <input type="radio"/> Stop |
| SSID | NETPRO_000000 <input type="button" value="Check SSID"/> Mode <input type="text" value="B,G,N"/> |
| Region | USA,Canada |
| Channel | 11 [2.462 GHz,Upper] <input type="button" value="Channel Search"/> |
| Operation mode | SSID Broadcast <input checked="" type="radio"/> ON <input type="radio"/> OFF WMM <input checked="" type="radio"/> ON <input type="radio"/> OFF |
| Authentication | Automatic |
| Encryption | <input checked="" type="radio"/> Disable <input type="radio"/> WEP64 <input type="radio"/> WEP128 <input type="radio"/> TKIP <input type="radio"/> AES <input type="radio"/> TKIP/AES |
| <input type="button" value="Apply"/> | |

Operation: You can choose to Start or Stop the wireless function.

SSID: Name of your wireless network. You can change it if you want.

Mode: If wireless connection conforms to 11g, 11b and 11n standards.

Region: Area where you locate this wireless router.

Channel: Choose one channel that can provide best performance for your WLAN.

Operation mode: you can enable or disable SSID Broadcast function or WMM function.

Encryption: You can choose Disable, WEP 64/128, TKIP, AES and TKIP/AES.

WEP: Wired Equivalent Protocol.

WPA: Wi-Fi Protected Access Wi-Fi, WPA is an intermediate solution for the security issues. It uses Temporal Key Integrity Protocol (TKIP) to replace WEP.

TKIP: TKIP is a compromise on strong security and possibility to use existing hardware. It still uses RC4 for the encryption like WEP, but with per-packet RC4 keys. In addition, it implements replay protection, keyed packet authentication mechanism (Michael MIC).

4.5 Firmware Upgrade

Click **Firmware Upgrade**, you will see firmware upgrade webpage as below.

| Firmware Upgrade | |
|------------------|------------------------------|
| Firmware Version | 3.1 |
| Build Date | Fri Oct 26 18:39:20 KST 2012 |

To upgrade manually

1. Download a firmware at [www.netpro.asia].
2. Click [Browse] and choose a downloaded firmware
3. Click [Upgrade] button.

No file chosen

Note.

- Internet will be unavailable for upgrading firmware.
- Power down for updating firmware can be the cause of system halt.

This page allows you to upgrade the wireless router firmware to the latest version. Please note: DO NOT power off the device during the uploading process because it may cause damage to your system.

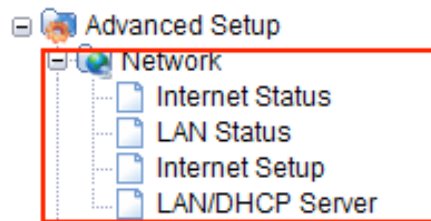
Now, you can enjoy the high-speed and high-stability Internet by this Router wirelessly.

5. ADVANCED SETUP

The Advanced Setup includes Network, Wireless, NAT/Routing, Firewall, Utility, Traffic and System. These settings are only for more technically advanced users who have sufficient knowledge about wireless LAN. Also they should not be changed unless you know what effect the changes will have on your Wireless Router.

5.1 Network

Click the plus sign beside **Network** menu to show up all Network parameters you could set up.



5.1.1 Internet Status

This page shows the Internet Status of this Router

Internet Status

| | |
|-------------------|--------------------------|
| Connection Status | WAN port is disconnected |
| Connection Type | DHCP User(Dynamic IP) |
| WAN IP | |
| Subnet Mask | |
| Default Gateway | |
| Primary DNS | |
| Secondary DNS | |
| MAC Address | 78-44-76-00-00-02 |

Refreshed by 5 seconds

5.1.2 LAN Status

This page shows you LAN Status after your successful settings.

LAN Status

LAN Configuration

| | |
|-------------------|-----------------------------|
| LAN IP | 192.168.1.1 |
| Subnet Mask | 255.255.255.0 |
| MAC Address | 78-44-76-00-00-01 |
| DHCP IP Pool | 192.168.1.2 ~ 192.168.1.254 |
| # of allocated IP | 2 |

Allocated IP list

| | IP | MAC Address | IP info. |
|---|-------------------------------|-------------------|----------|
| 1 | 192.168.1.2 (SN-201203131531) | 78-44-76-87-C9-A0 | Wireless |
| 2 | 192.168.1.3 | 0C-77-1A-4C-16-DB | Wireless |

5.1.3 Internet Setup

We have discussed this setting on **Internet Setup**. But if you want, you can reconfigure the Router settings on this page.

Internet Setup

DHCP User (FTTH, Optic LAN, Cable Modem, VDSL, LAN, IP ADSL)
 PPPoE User(ADSL)
 Static IP User

MAC Address Clone - - - - -

Allow private IP.
 Restart DHCP client if the physical WAN link is reconnected.
 MTU
 Set DNS server manually

Primary DNS . . .
Secondary DNS . . .

5.1.4 LAN/DHCP Server

Click **LAN/DHCP Server**, you will enter the page that allows you configure the LAN port and DHCP Server. **For LAN Setup:**

LAN IP Setup

| | | | | |
|--------------------------------------|----------------------------------|----------------------------------|----------------------------------|--------------------------------|
| LAN IP | <input type="text" value="192"/> | <input type="text" value="168"/> | <input type="text" value="1"/> | <input type="text" value="1"/> |
| Subnet Mask | <input type="text" value="255"/> | <input type="text" value="255"/> | <input type="text" value="255"/> | <input type="text" value="0"/> |
| <input type="checkbox"/> LAN Gateway | <input type="text" value=""/> | <input type="text" value=""/> | <input type="text" value=""/> | <input type="text" value=""/> |
| <input type="checkbox"/> LAN DNS | <input type="text" value=""/> | <input type="text" value=""/> | <input type="text" value=""/> | <input type="text" value=""/> |

LAN IP: this is the IP addresses to be represented by the LAN (including WLAN) interface that is connected to the internal network. This IP will be used for the routing of the internal network (it will be the Gateway IP for all the devices connected on the internal network).

***Note:** If this IP address changed, you can log into the WEB configuration interface only using the new IP address. AND if the new IP address and the original IP address are not in the same segment, the Virtual Server and DMZ Host service will not work. If you need to enable these functions, you will have to reset this IP address.*

Subnet Mask: this is used to define the device IP classification for the chosen IP address range. 255.255.255.0 is a typical netmask value for Class C networks which support IP address range from 192.0.0.x to 223.255.255.x. Class C network netmask uses 24 bits to identify the network and 8 bits to identify the host.

For DHCP setup:

DHCP Server Setup

| | | | |
|---|---|------------|----------------------|
| DHCP Server | <input checked="" type="radio"/> Start <input type="radio"/> Stop | DNS Suffix | <input type="text"/> |
| DHCP IP Pool | 192 . 168 . 1 . 2 ~ 192 . 168 . 1 . | | |
| Lease Time | <input type="text" value="7200"/> Sec | | |
| <input type="checkbox"/> DHCP server protection | | | |
| <input type="checkbox"/> Enable internet access only for PCs allocated by DHCP Server | | | |
| <input type="button" value="Apply"/> | | | |

DHCP Static Lease Setup

| | | | |
|--|------------------------------|--------------------------------------|--|
| <input type="checkbox"/> Block MAC address on the list with wrong IP address | | <input type="button" value="Apply"/> | |
| <input type="checkbox"/> Block MAC address not on the list | | | |
| <input type="button" value="Del"/> | Static Lease(IP/MAC Address) | <input type="button" value="Add"/> | IP/MAC Address in local network |
| <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> 192 . 168 . 1 . / - - - - - - - - - - |
| | | <input type="checkbox"/> | 192.168.1.2/50-E5-49-BB-44-96 PC connected |

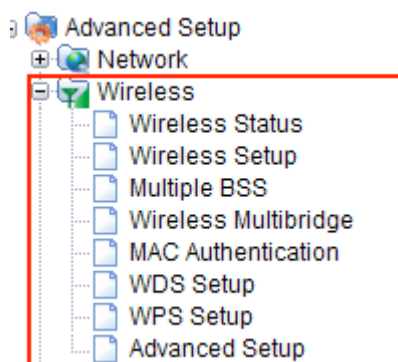
DHCP Server: you can choose to start or stop DHCP.

DHCP IP Pool: it is the IP range that the DHCP server will assign to every PC connected with the router.

Lease Time: the IP addresses given out by the DHCP server will only be valid for the duration specified by the lease time. Increasing the time ensure client operation without interrupt, but could introduce potential conflicts. Lowering the lease time will avoid potential address conflicts, but might cause more slight interruptions to the client while it will acquire new IP addresses from the DHCP server. The time is expressed in seconds.

5.2 Wireless

Next, you can set up the Wireless parameters. Click the plus sign beside **Wireless** menu to open up all wireless parameters, see below figure:



5.2.1 Wireless Status

Click **Wireless Status** menu, you will see your Router's wireless configuration status.

Wireless Status

Wireless Configuration

| | |
|----------------------|---------------------------------------|
| Status | AP Mode - Running |
| SSID(Network Name) | NETPRO_000000 |
| Mode | B,G,N |
| Region | USA,Canada |
| Channel | Channel 11 (2.462 GHz,Upper,40 MHz) |
| SSID broadcasting | Running |
| Authentication | Automatic |
| Encryption | Disable |
| MAC Authentication | Accept All |
| Wireless MAC Address | 78-44-76-00-00-00 |

Wireless Station Status

| <input type="button" value="Clear"/> | | | | |
|--------------------------------------|-----------|------------|------------|----------------------|
| MAC Address | Link Rate | Rx Packets | Tx Packets | Association Time |
| 1 78-44-76-87-C9-A0 | 135 Mbps | 345038 | 3900935 | 1 Hour 37 Min 57 Sec |
| 2 0C-77-1A-4C-16-DB | 6 Mbps | 4293 | 1299 | 6 Sec |

5.2.2 Wireless Setup

Click **Wireless Setup**, you will be able to configure the wireless corresponding function. We have discussed this setting on **Internet Setup**.

Wireless Setup

| | |
|--------------------------------------|---|
| Operation | <input checked="" type="radio"/> Start <input type="radio"/> Stop |
| SSID | <input type="text" value="NETPRO_000000"/> <input type="button" value="Check SSID"/> Mode <input type="text" value="B,G,N"/> |
| Region | <input type="text" value="USA,Canada"/> |
| Channel | <input type="text" value="11 [2.462 GHz,Upper]"/> <input type="button" value="Channel Search"/> |
| Operation mode | SSID Broadcast <input checked="" type="radio"/> ON <input type="radio"/> OFF WMM <input checked="" type="radio"/> ON <input type="radio"/> OFF |
| Authentication | <input type="text" value="Automatic"/> |
| Encryption | <input checked="" type="radio"/> Disable <input type="radio"/> WEP64 <input type="radio"/> WEP128 <input type="radio"/> TKIP <input type="radio"/> AES <input type="radio"/> TKIP/AES |
| <input type="button" value="Apply"/> | |

5.2.3 Multiple BSS

Click **Multiple BSS**, you will see the following page:

Multiple BSS

| | |
|----------------|---|
| SSID | <input type="text"/> |
| Access Policy | <input checked="" type="radio"/> Allow all <input type="radio"/> Only for Internet <input type="radio"/> Only for LAN |
| SSID Broadcast | <input checked="" type="radio"/> ON <input type="radio"/> OFF |
| WMM | <input checked="" type="radio"/> ON <input type="radio"/> OFF |
| Authentication | Automatic <input type="button" value="v"/> |
| Encryption | <input checked="" type="radio"/> Disable <input type="radio"/> WEP64 <input type="radio"/> WEP128 <input type="radio"/> TKIP <input type="radio"/> AES <input type="radio"/> TKIP/AES |
| QoS | Max. Download <input type="text"/> Kbps Max. Upload <input type="text"/> Kbps * 5Mbps -> 5000Kbps ** To disable QoS, Set each value to '0'. |

Max number of wireless network is 2

Wireless network information



NETPRO_000000

Basic Wireless Network
(Automatic - Disable - WMM)
Allow all

Running

WMM: it is an abbreviation of Wi-Fi Multimedia. It defines the priority levels for four access categories derived from 802.1d (prioritization tabs). The categories are designed with specific types of traffic, voice, video, best effort and low priority data.

Encryption: you can choose the encryption method for WMM. The setting please refer to wireless security setup.

QoS: this option allows you to limit the download and upload data rate for every PCs connected with the router. So the bandwidth can be used reasonably.

5.2.4 Wireless Multibridge

Click **Wireless Multibridge** menu, you will see the below page:

Wireless Multibridge

| | |
|-----------------------------|--|
| Operation | <input type="radio"/> Start <input checked="" type="radio"/> Stop |
| Wireless Mode | <input checked="" type="radio"/> Use Wireless Bridge <input type="radio"/> Use Wireless WAN |
| Bridge(Station) MAC Address | 78:44:76:00:00:03 |
| Wireless Status | Stopped |
| SSID | <input type="text"/> <input type="button" value="Search AP"/> |
| Channel | 11 [2.462 GHz,Upper] <input type="button" value="v"/> |
| Authentication | Open System <input type="button" value="v"/> |
| Encryption | <input checked="" type="radio"/> Disable <input type="radio"/> WEP64 <input type="radio"/> WEP128 <input type="radio"/> TKIP <input type="radio"/> AES |

Both the Wireless Bridge and Wireless WAN can help you to expand the wireless coverage and allow more terminals to access Internet.

5.2.5 MAC Authentication

You can control the PC to connect the wireless Router through MAC authentication.

📄 **MAC Authentication**

Select wireless network: NETPRO_000000 ▼

Accept All
 Accept MAC address registered
 Reject MAC address registered
 Apply

Del
Registered MAC address list

Add
MAC address List in wireless
Search

| | | | | | |
|--------------------------|--|--|--|--|--|
| <input type="checkbox"/> | | | | | |
| <input type="checkbox"/> | Description | | | | |
| <input type="checkbox"/> | 78-44-76-87-C9-A0(192.168.1.2) PC connected | | | | |
| <input type="checkbox"/> | 78-44-76-F3-87-6E | | | | |
| <input type="checkbox"/> | 00-26-66-6D-05-9C | | | | |
| <input type="checkbox"/> | 78-44-76-10-10-C8 | | | | |
| <input type="checkbox"/> | 78-44-76-20-32-38 | | | | |
| <input type="checkbox"/> | 00-22-5F-9E-6A-E1 | | | | |
| <input type="checkbox"/> | 68-A3-C4-EF-58-8B | | | | |
| <input type="checkbox"/> | 00-22-5F-E4-AE-3E | | | | |
| <input type="checkbox"/> | E0-CA-94-E4-41-42 | | | | |
| <input type="checkbox"/> | 00-14-9A-E7-F6-5A | | | | |
| <input type="checkbox"/> | 78-92-9C-4A-70-1C | | | | |

5.2.6 WDS Setup

WDS means Wireless Distribution System. It is a protocol for connecting two access points wirelessly. Usually, it can be used for the following application:

1. Provide bridge traffic between two LANs though the air.
2. Extend the coverage range of a WLAN.

To meet the above requirement, you must set these APs in the same channel and set MAC address of other APs which you want to communicate with in the table and then enable the WDS.

📄 **WDS Setup**

| AP's BSSID | Description |
|---|---|
| <input style="width: 100%;" type="text"/> - <input style="width: 100%;" type="text"/> - <input style="width: 100%;" type="text"/> - <input style="width: 100%;" type="text"/> - <input style="width: 100%;" type="text"/> - <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> |
| Search AP | |

Max number of AP is 4. Add

| AP's BSSID | Description | |
|------------|-------------------|---|
| 1 | 00-08-9F-0C-33-B0 | iptime-n6004 Del |

5.2.7 WPS Setup

WPS (Wi-Fi Protected Setup) provides easy procedure to make network connection between wireless station and wireless access point with the encryption of WPA and WPA2. It is enabled by default.

WPS Setup

WPS Activation ON OFF

WPS Config Use predefined config Use auto-generated SSID & Key

WPS Status Configured by current setting

WPS Configuration Init Apply

Connect WPS

Connect WPS PBC Button Pin Connect LAN Card PIN

5.2.8 Advanced Setup

Advanced Setup is for advanced parameter settings. For common users, please just keep the default configuration.

Advanced Setup

The following functions are settings for wireless expert.

Channel Bandwidth 20/40 MHz 20 MHz
Channel bonding option according to 802.11n Draft.

Reverse Direct Grant ON OFF
RDG can increase the wireless throughput.

Tx Power % (1 ~ 100)
The wireless coverage is adjusted by increasing or decreasing the Tx Power.
The range of value is 1 ~ 100. The higher power means the longer wireless coverage

Tx Burst Start Stop
Tx Burst may increase the performance.
But, in the environment of many simultaneous wireless connections, Disabling this feature can be better solution.

Preamble Length Long Preamble Short Preamble
Short Preamble may increase the performance slightly.
But for compatibility with old 802.11 lan card, use Long Preamble.

RTS Threshold bytes
The frames which have more length than RTS threshold are transmitted using RTS/CTS method
The less RTS threshold make wireless communication be more stable, but have less maximum throughput.
The valid range is 1 ~ 2347.

Fragmentation Threshold bytes
The frames which have more length than fragmentation threshold are transmitted after fragmented with setting value
The less Fragmentation Threshold may make wireless communication more stable, but have less maximum throughput.
The valid range is 256 ~ 2346.

Beacon Period ms
Normally use 100ms

Channel Bandwidth: this is the spectral width of the radio channel. Supported wireless channel spectrum widths:

20MHz is the standard channel spectrum width.

40MHz is the channel spectrum with the width of 40MHz (selected by default).

Reverse Direct Grant: this option can increase the wireless throughput.

TX Power: please refer to the description on the page.

Preamble Length: this option is to define the length of the sync field in an 802.11 packet. Most modern wireless network uses short preamble with 56 bit sync field instead of long preamble with 128 bit sync field. However, some original 11b wireless network devices only support long preamble.

RTS Threshold: determines the packet size of a transmission and, through the use of an access point, helps control traffic flow. The range is 0-2347 bytes. The default value is 2347, which means that RTS is disabled.

RTS/CTS (Request to Send / Clear to send) are the mechanism used by the 802.11 wireless networking protocols to reduce frame collisions introduced by the hidden terminal problem. RTS/CTS packet size threshold is 0-2347 bytes. If the packet size the node wants to transmit is larger than the threshold, the RTS/CTS handshake gets triggered. If the packet size is equal to or less than threshold the data frame gets sent immediately.

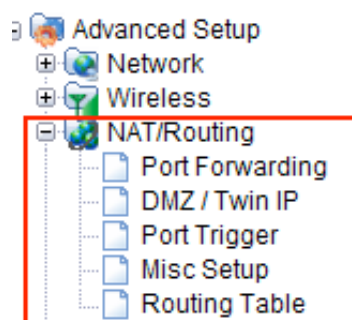
System uses Request to Send/Clear to send frames for the handshake that provide collision reduction for an access point with hidden stations. The stations are sending a RTS frame first while data is sent only after a handshake with an AP is completed. Stations respond with the CTS frame to the RTS, which provide clear media for the requesting station to send the data. CTS collision control management has a time interval defined during which all the other stations hold off the transmission and wait until the requesting station will finish transmission.

Fragment Threshold: specifies the maximum size for a packet before data is fragmented into multiple packets. The range is 256-2346 bytes. Setting the Fragment Threshold too low may result in poor network performance. The use of fragment can increase the reliability of frame transmissions. Because of sending smaller frames, collisions are much less likely to occur. However, lower values of the Fragment Threshold will result in lower throughput as well. Minor or no modifications of the Fragmentation Threshold value is recommended while default setting of 2346 is optimum in most of the wireless network use cases.

Beacon Period: By default, it is set to 100ms. Higher Beacon interval will improve the device's wireless performance and is also power-saving for client side. If this value set lower than 100ms, it will speed up the wireless client connection.

5.3 NAT/Routing

Click the plus sign beside **NAT/Routing** menu to open up all the parameters contained, see below:



5.3.1 Port Forwarding

Enter into this page; you can redirect common network services automatically to a specific device behind the NAT firewall. This setting is only necessary when you want to host some sort of servers like a Web server or mail server on the private local network behind your Gateway's NAT firewall.

Port Forwarding

Rule Type: Rule Name:

LAN IP: . . . Set connected PC's IP address(192.168.1.2)

Protocol: External Port: ~ Internal Port: ~

Max number of rule is 60.

The lower number, the higher priority.
To modify a rule, click the name of rule.

| <input type="button" value="Run"/> | Rule Name | Forwarding IP | Proto | External Port | Internal Port | <input type="button" value="Del"/> |
|---------------------------------------|-----------|---------------|-------|---------------|---------------|------------------------------------|
| <input type="checkbox"/> | | | | | | <input type="checkbox"/> |
| 1 <input checked="" type="checkbox"/> | adfa | 192.168.1.3 | tcp | 8088 | 7070 | <input type="checkbox"/> |

5.3.2 DMZ/Twin IP

The DMZ (Demilitarized Zone) host feature allows one local host to be exposed to the Internet for a special-purpose service such as Online Game and video conferencing. DMZ host forwards all the ports at the same time. Any PCs whose port is being forwarded must have its DHCP client function disabled and should have a new static IP Address assigned to it, because its IP Address may be changed when using the DHCP function.

DMZ / Twin IP

OFF
 DMZ (All connections from internet will be forwarded to DMZ PC)
 Twin IP (The TwinIP PC will have a public IP address.)

LAN IP: . . . Set connected PC's IP address(192.168.1.2)

5.3.3 Port Trigger

You can achieve some special purposes by this setting.

Port Trigger

| | | | |
|--------------|----------------------|---|--|
| Rule Name | <input type="text"/> | | |
| Port Trigger | Protocol | TCP ▾ | |
| | Port Range | <input type="text"/> ~ <input type="text"/> | |
| Port Forward | Protocol | TCP ▾ | |
| | Port Range | <input type="text"/> | |

Max number of rule is 10. Add

| Rule Name | Trigger Condition | Forward Condition | <input type="checkbox"/> | Del |
|-----------|-------------------|-------------------|--------------------------|-----|
| | | | | |

5.3.4 Misc Setup

Misc setup provides FTP Private Port, Multicast Forward and NAT on/off setup.

Misc Setup

| | | | | | | |
|------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----|
| FTP Private Port | Port | <input type="text"/> | | | | Add |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Del |
| | 0 | 0 | 0 | 0 | 0 | |

| | | |
|-------------------------|---|-------|
| Multicast Forward(IGMP) | <input type="radio"/> Start Group List <input checked="" type="radio"/> Stop | |
| | To receive/send a Multicast data | Apply |

| | | |
|------------------|---|-----------------|
| NAT On/Off Setup | <input checked="" type="radio"/> Start <input type="radio"/> Stop | Apply & Restart |
| | If NAT is stopped, this router will act as just pure router. | |

5.3.5 Routing Table

You can add or delete the static routing rules here.

Routing Table

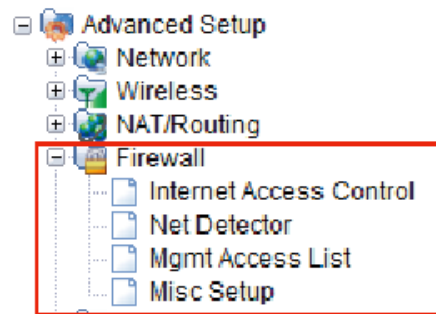
| Type | Target | Mask | Gateway | |
|-------|---|----------------------|---|--|
| Net ▾ | <input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/> | <input type="text"/> | <input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/> | |

Max number of routing table is 20 Add

| Type | Target | Mask | Gateway | Del |
|------|--------|------|---------|--------------------------|
| | | | | <input type="checkbox"/> |

5.4 Firewall

Click the plus sign beside **Firewall** menu to show up all the parameters contained, see below:



5.4.1 Internet Access Control

Internet Access Control provides multiple security protection. It can achieve MAC/Port/IP filtering, Internet access time control and other functions that enable user to control Internet access.

Internet Access Control

| | | | | | |
|--|--|---------------------|---------------------|-------------|------------------------------------|
| Input Type | Basic Setup | Rule Name | | | |
| Source IP Address | <input checked="" type="radio"/> 192 . 168 . 1 . <input type="text"/> ~ 192 . 168 . 1 . <input type="text"/> <input type="text"/> <input type="checkbox"/> ALL IP | | | | |
| Source MAC Address | <input type="radio"/> <input type="text"/> - <input type="text"/> - <input type="text"/> - <input type="text"/> - <input type="text"/> - <input type="text"/> <input type="button" value="Search MAC address"/> | | | | |
| Accept/Drop | Drop | Priority | 0 | | |
| <input type="checkbox"/> Rule Scheduling | | | | | |
| Max number of setting is 200. <input type="button" value="Add"/> <input type="button" value="Cancel"/> | | | | | |
| The lower number, the higher priority. To modify a rule, click the name of rule. | | | | | |
| <input type="button" value="Run"/> | Rule Name | Schedule | Filtering Rule | Accept/Drop | <input type="button" value="Del"/> |
| 1 <input checked="" type="checkbox"/> | eee | Everyday 24 hour | Show Filtering Rule | Accept | <input type="checkbox"/> |

5.4.2 Net Detector

Net Detector provides some basic virus protection function that allows user to have a safer network communication.

Net Detector

Net Detector Setup

| | |
|-----------------|--|
| Operation | <input type="radio"/> Start <input checked="" type="radio"/> Stop |
| Detection Port | <input checked="" type="radio"/> Well-known Worm Virus Ports <input type="radio"/> All Ports |
| Detection Level | <input checked="" type="radio"/> Mid <input type="radio"/> 0 connections/sec |
| Burst Drop | <input type="text" value="No"/> <input type="checkbox"/> Only drop worm virus port |
| E-mail Policy | Please, set the email address of administrator & SMTP mail server. |

Net Detector Log

| Detection Time | IP | Protocol | Frequency | Comment [Red:User Warning OFF] |
|----------------|----|----------|-----------|-----------------------------------|
|----------------|----|----------|-----------|-----------------------------------|

5.4.3 Mgmt Access List

Mgmt Access List

| <p>Remote Accesslist</p> <p><input type="checkbox"/> Remote Mgmt port # <input type="text" value="0"/></p> <p><input type="checkbox"/> Use Remote Accesslist <input type="button" value="Apply"/></p> <p>IP allowed <input type="text" value="."/> <input type="text" value="."/> <input type="text" value="."/> <input type="text" value="."/></p> <p>Description <input type="text" value=""/> <input type="button" value="Add"/></p> <p>Max number of IP is 10</p> <table border="1"> <thead> <tr> <th>IP</th> <th>Description</th> <th>Del</th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> | IP | Description | Del | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | <p>Internal Accesslist</p> <p><input type="checkbox"/> Use Internal Accesslist <input type="button" value="Apply"/></p> <p>IP allowed <input type="text" value="192"/> <input type="text" value="."/> <input type="text" value="168"/> <input type="text" value="."/> <input type="text" value="1"/> <input type="text" value="."/></p> <p>Description <input type="text" value=""/> <input type="button" value="Add"/></p> <p>Max number of IP is 10</p> <table border="1"> <thead> <tr> <th>IP</th> <th>Description</th> <th>Del</th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> | IP | Description | Del | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
|--|----------------------|--------------------------|-----|----------------------|----------------------|--------------------------|--|----|-------------|-----|----------------------|----------------------|--------------------------|
| IP | Description | Del | | | | | | | | | | | |
| <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | | | | | | | | | | | |
| IP | Description | Del | | | | | | | | | | | |
| <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | | | | | | | | | | | |

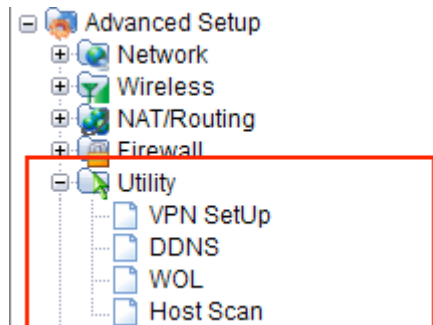
5.4.4 Misc Setup

Misc Setup: Generally maintain the default.

| Misc Setup | |
|--|---|
| SYN Flood | <input checked="" type="radio"/> Start <input type="radio"/> Stop The SYN flood is a form of denial-of-service attack in which an attacker sends a succession of SYN requests to a target's system. |
| Smurf | <input checked="" type="radio"/> Start <input type="radio"/> Stop The smurf attack, named after its exploit program, is a denial-of-service attack that uses spoofed broadcast ping messages to flood a target system. |
| IP source routing | <input checked="" type="radio"/> Start <input type="radio"/> Stop The source routing allows a sender of a packet to specify the route the packet takes through the network, so if cracker can generate a source routing packet then cracker can deceive a target host as a trusted host. |
| IP Spoofing | <input checked="" type="radio"/> Start <input type="radio"/> Stop The IP address spoofing is the creation of IP packets with a forged (spoofed) source IP address with the purpose to conceal the identity of the sender or impersonating another computing system. |
| ARP Virus Protection | <input type="radio"/> Start <input checked="" type="radio"/> Stop Send <input type="text" value="10"/> ARP packets per 1 second to <input type="text" value="Wired Network"/> ARP Virus Protection prevents from ARP snoofing attack |
| Blocking ICMP(ping) from internet | <input type="radio"/> Start <input checked="" type="radio"/> Stop |
| Blocking ICMP(ping) from LAN to internet | <input type="radio"/> Start <input checked="" type="radio"/> Stop |

5.5 Utility

Click the plus sign beside **Utility** menu to open up all the parameters contained, please see below:



5.5.1 VPN Setup

The wireless router provides PPTP protocol VPN connection, and it allows users to create 5 VPN accounts at most. First, you need to Start this function and click Apply to make the Account settings work. After you set one VPN Account, click Add.

VPN Setup

VPN(PPTP) Setup

| | | |
|------------------|--|---------------------------------------|
| Mode | <input type="radio"/> Start | <input checked="" type="radio"/> Stop |
| Encryption(MPPE) | <input checked="" type="radio"/> MPPE encryption | <input type="radio"/> No encryption |

VPN(PPTP) Account

| | |
|--------------|---|
| VPN Account | <input type="text"/> |
| VPN Password | <input type="text"/> |
| Assigned IP | <input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="1"/> . <input type="text"/> |

Maximum number of VPN User is 5.

| VPN Account | Assigned IP | Status | <input type="button" value="Disconnect"/> | <input type="button" value="Del"/> |
|-------------|-------------|--------|---|------------------------------------|
|-------------|-------------|--------|---|------------------------------------|

5.5.2 DDNS

DDNS (Dynamic Domain Name Server) is to achieve a fixed domain name to dynamic IP resolution. For dynamic IP address users, if there is any Internet access to their IP address, they need to show a fixed domain name to them. So their IP address will be sent to the DDNS service provider from the dynamic analysis server (3322, dyndns.org) and to update the DNS database. Then DDNS will bind the dynamic IP address to a fixed domain name. When other users on the Internet want to access this domain name, the dynamic DNS server will return the correct IP address. In this way, most users do not need to use fixed IP and can also name the fixed network system.

DDNS

| | |
|-----------------------|--|
| DDNS Service Provider | <input type="text" value="No-IP - www.no-ip.com"/> |
| Host Name | <input type="text"/> |
| User ID | <input type="text"/> |
| Password | <input type="text"/> |

| Host Name | DDNS Status | <input type="button" value="Refresh"/> | <input type="button" value="Update"/> | <input type="button" value="Del"/> |
|-----------|-------------|--|---------------------------------------|------------------------------------|
|-----------|-------------|--|---------------------------------------|------------------------------------|

In order to set up DDNS, please follow the below steps:

1. Choose your service provider.
2. Type in User Name for your DDNS account.

3. Type in Password for your DDNS account.
4. Host Name-the domain names are displayed here. Click **Add** to apply the modification.

5.5.3 WOL

Users can use this Wake on Line function to start the PC remotely.

WOL

MAC Address Set connected PC's MAC address

- - - - -

PC Name

Max number of setting is 100.

| MAC Address | PC Name | Wake Up | Del |
|-------------|---------|--|------------------------------------|
| | | <input type="button" value="Wake Up"/> | <input type="button" value="Del"/> |

5.5.4 Host Scan

It allows user to view the working status of the PC, including status of ICMP, ARP package sending and receiving and TCP port communication information.

Host Scan

Ping Test

TCP PORT SCAN

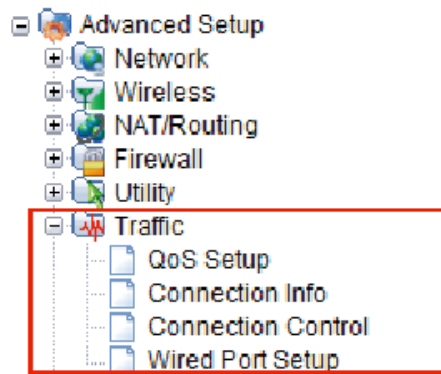
IP . . .

Count : times Time Out : Sec Data Size : bytes

IP . . . Port Range: ~

5.6 Traffic

Click the plus sign beside the Traffic menu to show up all the parameters contained, see below:



5.6.1 QoS Setup

QoS Setup

QoS Basic Setup

| | | |
|---------------|---|--|
| Operation | <input type="radio"/> Start <input checked="" type="radio"/> Stop | |
| Internet Type | <input type="text" value="User Defined"/> | |
| Download | <input type="text" value="0"/> Kbps | Upload <input type="text" value="0"/> Kbps |

Not allow to use a radix point. ex) 2.5Mbps -> 2500Kbps

QoS Rule Setup

Smart QoS

User defined Rule Predefined Rule

| | | | | | |
|----------|--|---------------|---|--------|-------------------------------------|
| Mode | <input type="text" value="Max. Limit"/> | Download | <input type="text" value="0"/> Kbps | Upload | <input type="text" value="0"/> Kbps |
| IP | <input checked="" type="radio"/> <input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="1"/> . <input type="text" value=""/> ~ <input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="1"/> . <input type="text" value=""/> | | | | |
| | <input type="checkbox"/> Bandwidth Per IP (BPI) | | | | |
| | <input type="radio"/> Twin IP | | | | |
| Protocol | <input type="text" value="-----"/> | External Port | <input type="text" value=""/> ~ <input type="text" value=""/> | | |

Max number of rule is 127.

The lower number, the higher priority.
Priority of 'Min. Guarantee' mode is higher than priority of 'Max. Limit' mode

Max. Limit Min. Guarantee

| IP | Condition | Mode | Download | Upload | <input type="button" value="Del"/> |
|----|-----------|------|----------|--------|------------------------------------|
| | | | | | <input type="checkbox"/> |

This page is used to improve your online gaming experience by ensuring that your game traffic is prioritized over network traffic, such as FTP or Web.

Operation: You can choose to Start or Stop this function on your Router.

Internet Type: Any Internet type you want to control bandwidth.

Download/Upload: Set the bandwidth range of the Router.

QoS Rule Setup

Smart QoS: You can choose to use Smart QoS for convenient. If you select this option,

you don't need to do the below settings.

Mode: You could select guaranteed minimum bandwidth or Limited maximum bandwidth.


IP: You should type in the IP addresses range of PC in LAN.





Protocol: Any Protocol you want to control bandwidth.

External Port: You need to enter the range of external ports that you want to control bandwidth.

5.6.2 Connection Info

This page indicates the present connection information of the Wireless Router using graphics and data including data package sending and receiving status of each PC in connection.

 **Connection Info**

 TCP  UDP  ICMP  Unknown

Total Connection Info

| Current/Max (1 / 8192) | | | | | Rx Packets | Rx Bytes |
|------------------------|---|----|----|------|------------|----------|
| | | | | | Tx Packets | Tx Bytes |
| 0 | 2 | 10 | 50 | 100% | 0 | 0 B |
| | | | | | 8 | 2.7 KB |

Connection Info per IP

| IP | Connection Info | | Rx Packets | Rx Bytes |
|-------------|-----------------|------------------------------------|------------|----------|
| | | | Tx Packets | Tx Bytes |
| 192.168.1.1 | | <input type="button" value="Del"/> | 0 | 0 B |
| | | | 8 | 2.7 KB |

5.6.3 Connection Control

Connection Control shows the Max connection, Max UDP connection, Max ICMP connection and Max connection of each PC. These settings are only for advanced users, common users are not recommended to change them.

Connection Control

| | | |
|------------------------------|-----------------------------------|---------------------------------------|
| Max connection | <input type="text" value="8192"/> | (0 : No limit, 512 ~) |
| Max UDP connection | <input type="text" value="4096"/> | (0 : No limit, 10 ~ Max connection) |
| Max ICMP connection | <input type="text" value="1024"/> | (0 : No limit, 1 ~ Max connection) |
| Max connection rate per 1 PC | <input type="text" value="0"/> | % (0 : No limit, 1 ~ 100) |

* Warning.

1. This page is only for network expert.
2. Max connection rate per 1 PC option works only when internal network is C class.

Control Connection Timeout

| | | | | | |
|-------------------------|------------------------------------|-----|----------------------|----------------------------------|-----|
| TCP SYN SENT TIMEOUT | <input type="text" value="20"/> | Sec | TCP SYN RECV TIMEOUT | <input type="text" value="60"/> | Sec |
| TCP ESTABLISHED TIMEOUT | <input type="text" value="86400"/> | Sec | TCP FIN WAIT TIMEOUT | <input type="text" value="120"/> | Sec |
| TCP CLOSE WAIT TIMEOUT | <input type="text" value="60"/> | Sec | TCP LAST ACK TIMEOUT | <input type="text" value="30"/> | Sec |
| TCP TIME WAIT TIMEOUT | <input type="text" value="10"/> | Sec | TCP CLOSE TIMEOUT | <input type="text" value="10"/> | Sec |
| UDP TIMEOUT | <input type="text" value="30"/> | Sec | UDP STREAM TIMEOUT | <input type="text" value="180"/> | Sec |
| ICMP TIMEOUT | <input type="text" value="30"/> | Sec | GENERIC TIMEOUT | <input type="text" value="600"/> | Sec |

5.6.4 Wired Port Setup

This page shows the connection status of the PC connected with your router by cables.

Wired Port Setup

Wired Port Link Status

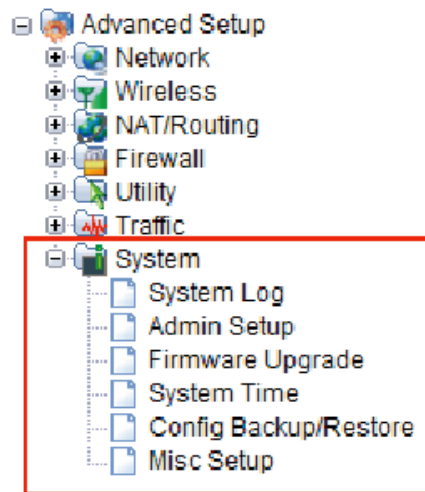
| Port | WAN | 1 | 2 | 3 | 4 |
|--------|-----|-----|-----|------|-----|
| Link | Off | Off | Off | On | Off |
| Speed | -- | -- | -- | 100 | -- |
| Duplex | -- | -- | -- | Full | -- |

Wired Port Link Setup

| Port | Mode | Speed | Duplex | |
|------|-----------------------------------|--------------------------------------|-----------------------------------|--------------------------------------|
| WAN | <input type="text" value="Auto"/> | <input type="text" value="100Mbps"/> | <input type="text" value="FULL"/> | <input type="button" value="Apply"/> |
| 1 | <input type="text" value="Auto"/> | <input type="text" value="100Mbps"/> | <input type="text" value="FULL"/> | <input type="button" value="Apply"/> |
| 2 | <input type="text" value="Auto"/> | <input type="text" value="100Mbps"/> | <input type="text" value="FULL"/> | <input type="button" value="Apply"/> |
| 3 | <input type="text" value="Auto"/> | <input type="text" value="100Mbps"/> | <input type="text" value="FULL"/> | <input type="button" value="Apply"/> |
| 4 | Auto mode only | | | |

5.7 System

Click the plus sign beside the System menu to open up all the parameters contained, please see below:



5.7.1 System Log

System Log shows the working status of the wireless router, user can check the running status information here:

System Log

System Log Setup

| | | |
|---------------|--|--------------------------------------|
| Operation | <input checked="" type="radio"/> Start <input type="radio"/> Stop | <input type="button" value="Apply"/> |
| Status | Log Count(Max Count) : 6(400) | <input type="button" value="Clear"/> |
| E-mail Report | Please, set the email address of administrator & SMTP mail server. | |

System Log View

| Timestamp | System Log Contents |
|-----------|--|
| ***** | Allocated IP address to the PC in DHCP server: 192.168.1.3 |
| ***** | IP : 192.168.1.2 LOGIN Success |
| ***** | IP : 192.168.1.2 LOGIN Fail |
| ***** | Allocated IP address to the PC in DHCP server: 192.168.1.2 |
| ***** | No response from DHCP Server in WAN (wan1) |
| ***** | System restarted (Version: 3.1) |

5.7.2 Admin Setup

Here you can change the login account name and password, and administrator email information. We have discussed this section before.

Admin Setup

Login Account Setup

| | |
|-----------------------|----------------------------------|
| Current ID & password | ID - admin Password - Configured |
| New Login ID | <input type="text"/> |
| New Password | <input type="text"/> |
| Re-type New Password | <input type="text"/> |

Admin E-mail Setup

| | |
|--------------------|--|
| Admin E-mail | <input type="text"/> |
| Mail Server(SMTP) | <input type="text"/> |
| E-mail of sender | <input type="text"/> |
| Use Authentication | <input type="radio"/> Use <input checked="" type="radio"/> Not Use |
| SMTP Account | <input type="text"/> |
| SMTP Password | <input type="text"/> |

Admin E-Mail Setup: If you want to receive IP routing log, set up Email address and SMTP server to receive it.

5.7.3 Firmware Upgrade

This page allows you to upgrade the Access Point firmware to new version. Please note: DO NOT power off the device during the upload because it may crash the system.

Firmware Upgrade

| | |
|------------------|------------------------------|
| Firmware Version | 3.1 |
| Build Date | Fri Oct 26 18:39:20 KST 2012 |

To upgrade manually

1. Download a firmware at [www.netpro.asia].
2. Click [Browse] and choose a downloaded firmware
3. Click [Upgrade] button.

No file chosen

Note.

- Internet will be unavailable for upgrading firmware.
- Power down for updating firmware can be the cause of system halt.

5.7.4 System Time

You can set the time server and time zone for your wireless Router system time.

| System Time | |
|--------------------------------------|---|
| System Time | Trying to get system time from time server. |
| Time Server | <input type="text" value="time.windows.com"/> <input type="text" value="time.windows.com"/> |
| | <input type="checkbox"/> Summer Time |
| Standard Time Zone | <input type="text" value="(GMT-05:00) New York, Bogota, Lima (Eastern Standard)"/> |
| <input type="button" value="Apply"/> | |

5.7.5 Config Backup/Restore

This webpage allows you to save current settings to a file and reload the settings from the file which was saved previously. Besides, you could reset the current configuration to factory default.

| Config Backup/Restore | |
|---|--|
| <input type="button" value="Config Backup"/> | Download configuration file on your PC |
| <input type="button" value="Choose File"/> No file chosen | |
| <input type="button" value="Config Restore"/> | Restore configuration by using Downloaded configuration |
| <input type="button" value="Factory Default"/> | To restore the factory default configuration, click this button. |

5.7.6 Misc Setup

Misc Setup provides Host name, Auto Saving, Auto Redirection, Login page setup, UPNP setup and Restart System functions.

| Misc Setup | |
|-------------------------|---|
| Hostname | <input type="text"/> <input type="button" value="Apply"/> |
| Auto Saving | <input checked="" type="radio"/> Start <input type="radio"/> Stop <input type="button" value="Apply"/> |
| Auto Redirection | <input type="radio"/> Start <input checked="" type="radio"/> Stop Redirect web connection to the router's setup page, when internet is disconnected <input type="button" value="Apply"/> |
| Login Page Setup | <input checked="" type="radio"/> The login page would be displayed <input type="radio"/> The login page would not be displayed <input type="button" value="Apply"/> |
| How to run Setup Window | <input checked="" type="radio"/> Use Popup <input type="radio"/> Use current window <input type="button" value="Apply"/> |
| UPNP Setup | <input checked="" type="radio"/> Start <input type="radio"/> Stop <input type="button" value="UPNP Port Forwarding List"/> <input type="button" value="Apply"/> |
| Restart System | <input type="button" value="Apply"/> |

5.7.7 Warranty

NETPRO provides a limited 1 year warranty to all NETPRO products purchased. The warranty covers the main device, antenna and external power supply failures due to defects in material or workmanship. Packaging, various cables, software products, technical data and other accessories are not covered here. The maximum liability of NETPRO is equal to or no higher than the product's purchased price.