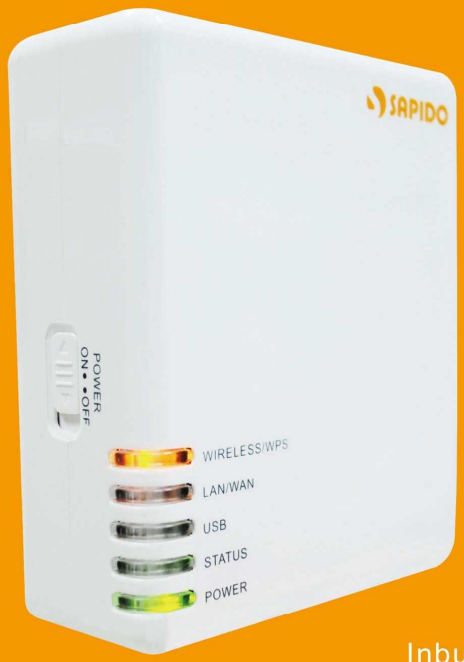
SAPIDO



Mobile Hotspot

Inbuilt High Capacity-Long-lasting Li Battery

MB-1132

User Manual V 1.0

FCC Statement

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

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

FCC Caution

1. The device complies with Part 15 of the FCC rules. Operation is subject to the following conditions:

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

3. FCC RF Radiation Exposure Statement: The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

4. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

5. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

IMPORTANT NOTE
FCC Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance20cm between the radiator & your body.

CE Mark Warning

This is a class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

National Restrictions

Frequency range - 2400.0 - 2483.5 MHz

Country	Country	Reason/remark
Bulgaria	none	General authorization required for outdoor use and public service.
France	Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz	Military Radiolocation use. Refarming of the 2.4 GHz band has been ongoing in recent years to allow current relaxed regulation. Full implementation planned 2012.
Italy	none	If used outside of own premises, general authorization is required.
Luxembourg	none	General authorization required for network and service supply (not for spectrum).
Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund.
Russian Federation	none	Only for indoor applications.

Note: Please don't use the product outdoors in France

CE Statement of Conformity

Our product has been tested in typical configuration by Ecom Sertech Corp and was found to comply with the essential requirement of "Council Directive on the Approximation of the Laws of the Member Sates relating to Electromagnetic Compatibility" (89/336/EEC; 92/31/EEC; 93/68/EEC). The Declaration of Conformity can be found at the Sapido regional website. www.sapidotech.de

CE Information of Disposal

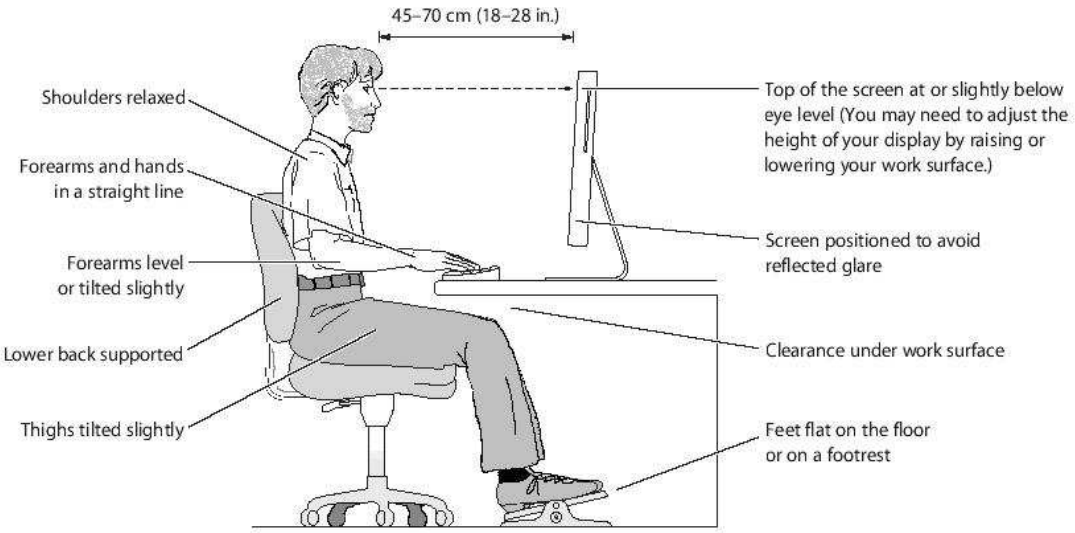
The electric and electronic equipment or unit which is labeled with crossed-out wheeled bin may not be disposed of with household waste. This mark is based on European Directive 2002/96/EC (for Waste Electric and Electronic Equipment=WEEE).

Please take it to the designated collection facilities. We will ensure the proper recycling, reuse and other forms of recovery of WEEE. WEEE has the potential effects on the environment and human health as a result of the presence of hazardous substances. You can contribute to eliminate these effects by your cooperation.

Safe Seating Gestures

You should follow the manufacturer's instructions for adjusting the backrest to fit your body properly.

- An adjustable chair that provides firm, comfortable support is best.
- Adjust the height of the chair so your thighs are horizontal and your feet flat on the floor.
  - The back of the chair should support your lower back (lumbar region).



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Chapter 1 Introduction

1.1 Overview

Sapido Mobile Hotspot is equipped with two high capacity and long-lasting Li Batteries. Have the batteries fully charged, you can stay Internet connection for 6 hours, while standby time is up to 20 hours. The inbuilt mini USB port offers flexible power supply and battery charging. It is truly the only router to take with you and enjoy Internet on the road with no worry!

Whatever broadband service you use - xDSL/Cable, WiFi Hotspot, 3G/4G, or even WiMAX, you can share internet connections effortlessly via Sapido Mobile Hotspot. It also carries advanced 2T2R antenna technology, which enhances not only wireless coverage but also provides an ultimate wireless speed performance of 300 Mbps.

In addition, Sapido Mobile Hotspot complies with the latest 802.3az Energy Efficient Ethernet standard and carrying Green AP technology. It adjusts power consumption according to the auto detect of Internet connection and packet transmission, and can save up to 80% electricity.

1.2 Features

- All broadbands can work – 3G/4G, WiMAX, xDSL/Cable, WiFi Hotspot
- Advanced Power Saving Technology – Save up to 80% Consumption.
- 2T2R Technology - Enhance Wireless Speed and Range.
- Complies with wireless 11n standard, which upgrades data transfer rate to 300Mbps.
- 20,000 sessions for efficient P2P downloading, online games and other Internet usages.
- Multi-AP, Network groups setup for flexible management.
- Secure Internet- Support various internet filters and advanced encryption types.
- Unique domain name- Easy to find your server router by typing the unique domain name.
- Virtual Server
- Virtual DMZ

1.3 Specifications

Network	
Standards	Mobile (External): 3G/4G USB Modem WLAN: IEEE 802.11n, 802.11g, 802.11b WAN: xDSL/Cable Modem
Data Rate	3G/4G: Depending on actual service speed WiFi: 802.11n (Max 300Mbps), 802.11g (Max 54Mps), 802.11b (Max 11Mbps) LAN: 802.3/802.3u (10/100Mbps)
Frequency Range	2.412~2.484GHz
Modulation Technology	IEEE 802.11b: OFDM IEEE 802.11g: CCK, DQPSK, DBPSK
Wireless Security	WEP 64 or 128 bit/WPA/WPA2/WPA2 Mixed, WPS (PBC/PIN), WDS, Mutiple APs
Firewall	MAC Address Filtering, URL Filtering, IP/Port Based Filtering UPnP, DHCP, DDNS, DNS
Operation Modes	Router
Network Features	NAT: One-to-Many NAT, Virtual Server, DMZ
Hardware	
Ethernet	10/100Mbps RJ45, Auto-MDI/MDI-X (WAN/LAN x 1)
LED Indicator	WIRELESS/WPS, LAN/WAN, USB, STATUS, POWER
Power	Li-Ion Battery x2 DC Adapter: 12V Mini-USB Port DC 5V input from PC for operation or DC
Operating Temperature	Operating: 0ºC ~40ºC (32ºF ~104ºF) Storage: -20ºC ~70ºC (-4ºF ~158ºF)
Humidity	Operating: 10% to 85% Non-Condensing Storage: 5% to 90% Non-Condensing
Dimension	91mm x 78mm x 33.2mm
Management	Web GUI, Firmware upgrade via web

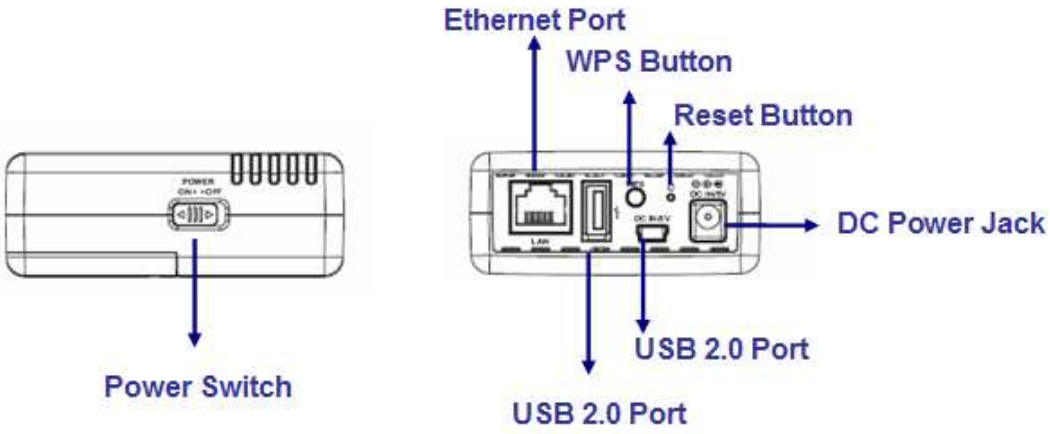
1.4 Product Appearance

- The Front

LED Indicator Status Description:

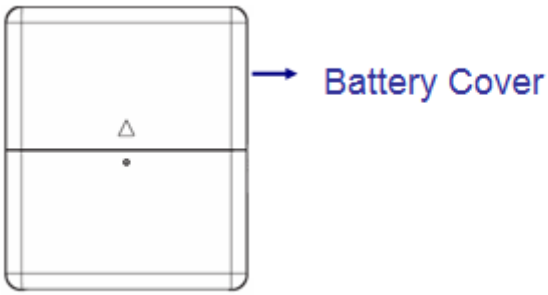
Status / LED Indicator	Solid	Flashing
WIRELESS & WPS	Operation OK	Green: Transmitting Data Red: WPS enabled
LAN / WAN	Ethernet connected	Transmitting Data
USB	3G/4G service is available	Connected to a network using 3G/4G
STATUS	Operation OK	Green: Reset / Firmware updates in progress
Power	Green: Battery fully charged Red: Low battery	Green: DC Power input or Battery charging

- Side



Power Switch	Power on /off
LAN/WAN	RJ-45 Ethernet 10/100 Ports
USB2.0 Ports	3G/4Gmodem only
WPS Button	WPS function
Reset Button	Back to default setting
Mini USB	Power supply only
DC Power Jack	DC adapter plugged in

- The Rear



Operation Mode Switch	Router, AP, and WiFi AP operation modes
Ethernet Port (WAN/LAN)	RJ-45 Ethernet 10/100 Ports
Ethernet Port (LAN)	RJ-45 Ethernet 10/100 Ports
Mini USB Port	Power Adapter DC 5V mini-USB B type male connector

Chapter 2 2

Chapter 3 System and Network Setup

To begin with MB-1132, you must have the following minimum system requirements. If your system can't correspond to the following requirements, you might get some unknown troubles on your system.

- Internet Account for XDSL/Cable Modem, broadband or 3G/4G
- One Ethernet (10 BASE-T or 10/100 BASE-TX) network interface card.
- TCP/IP and at least one web browser software installed (E.g.: Internet Explorer 5.0, Netscape Navigator 7.x, Apple Safari 2.03 or higher version).
- At lease one 802.11g (54Mbps) or one 802.11b (11Mbps) wireless adapter for wireless mobile clients.
- Recommended OS: Win2000 or WinXP / Linux.

3.1 Build Network Connection

Administrator can manage the settings for WAN, LAN, Wireless Network, NAT, password, User Accounts, Firewall, etc.

Please confirm the network environment or the purpose before setting this product.

3.2 Network setup

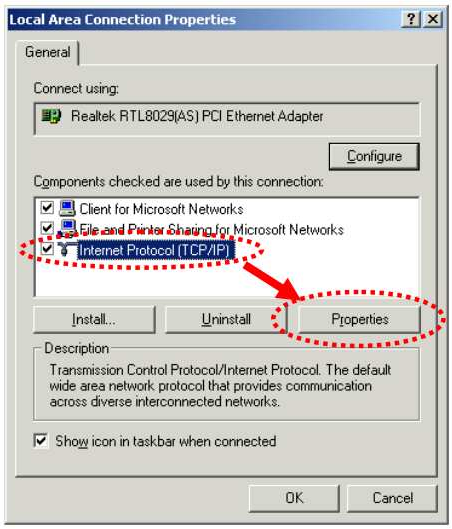
After the network connection is built, the next step is setup the router with proper network parameters, so it can work properly in your network environment. Before you connect to the wireless router and start configuration procedures, your computer must be able to get an IP address from the wireless router automatically (use dynamic IP address). If it's set to use static IP address, or you're unsure, please follow the below instructions to configure your computer with dynamic IP address:

If the operating system of your computer is….

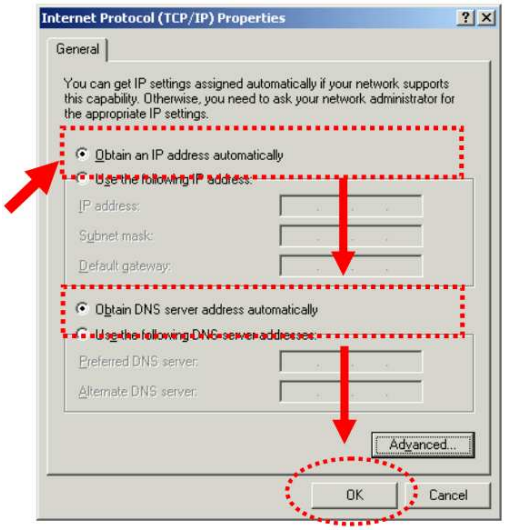
Windows 2000 - please go to section 2.2.1
Windows XP - please go to section 2.2.2
Windows Vista/Win7 - please go to section 2.2.3

3.2.1 Windows 2000

Click "Start" button (it should be located at lower-left corner of your computer), then click control panel. Double-click Network and Dial-up Connections icon, double click Local Area Connection, and Local Area Connection Properties window will appear. Select "Internet Protocol (TCP/IP)", then click "Properties".

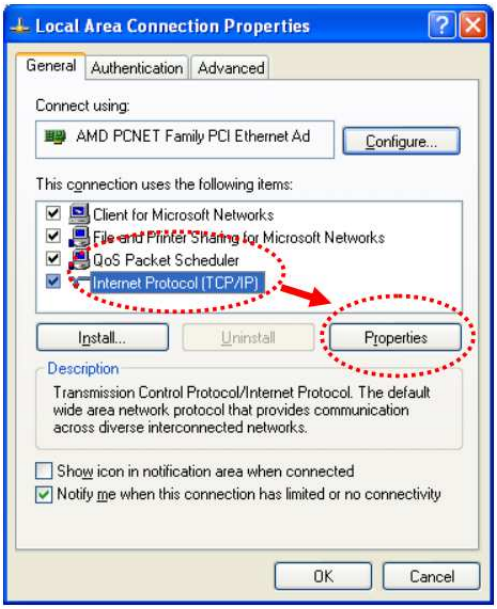


1. Select "Obtain an IP address automatically" and "Obtain DNS server address automatically", then click "OK".

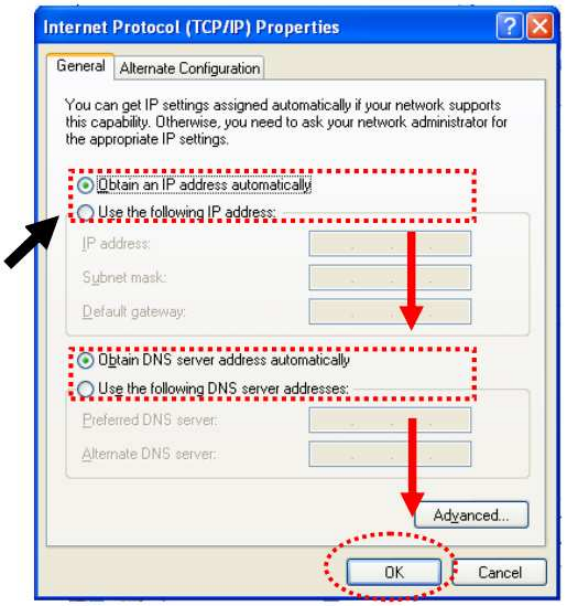


3.2.2 Windows XP

1. Click “Start” button (it should be located at lower-left corner of your computer), then click control panel. Double-click Network and Internet Connections icon, click Network Connections, then double-click Local Area Connection, Local Area Connection Status window will appear, and then click “Properties”.

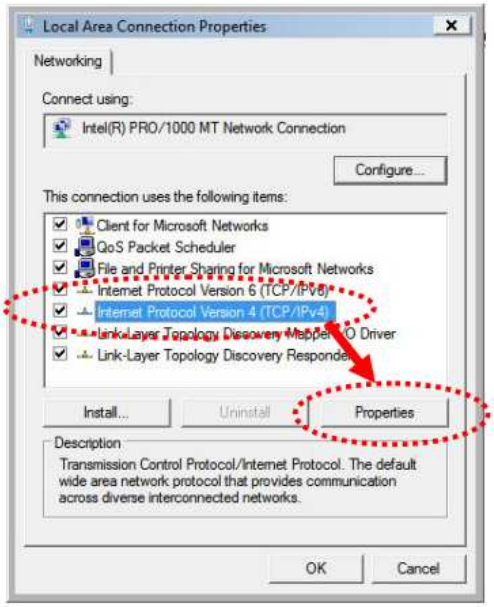


2. Select “Obtain an IP address automatically” and “Obtain DNS server address automatically”, then click “OK”.

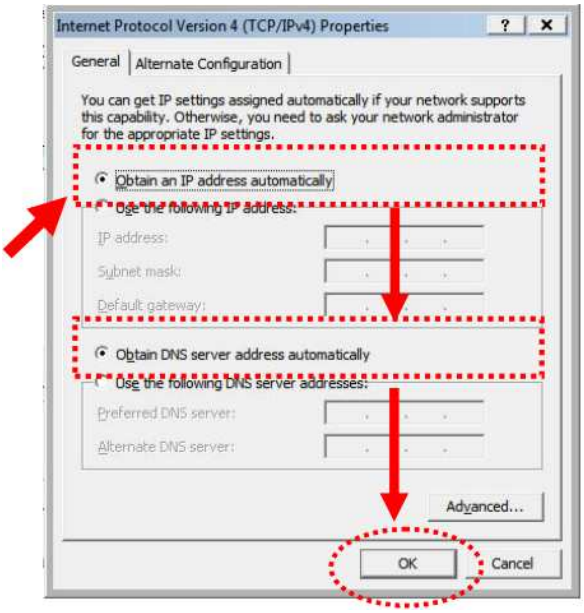


3.2.3 Windows Vista / Windows 7

1. Click “Start” button (it should be located at lower-left corner of your computer), then click control panel. Click View Network Status and Tasks, and then click Manage Network Connections. Right-click Local Area Network, then select “Properties”. Local Area Connection Properties window will appear, select “Internet Protocol Version 4 (TCP / IPv4)”, and then click “Properties”.



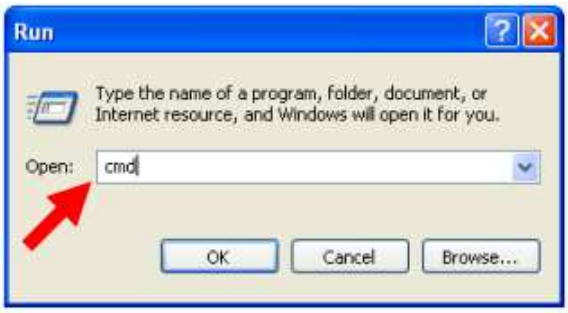
2. Select “Obtain an IP address automatically” and “Obtain DNS server address automatically”, then click “OK”.



3.3 Router IP Address Lookup

After the IP address setup was completed, please click “start” ⇨ “run” at the bottom-lower corner of your desktop:

Input “cmd”, and then click “OK”.



Input “ipconfig”, then press “Enter” key. Please check the IP address followed by “Default Gateway” (In this example, the gateway IP address of router is 192.168.1.1)

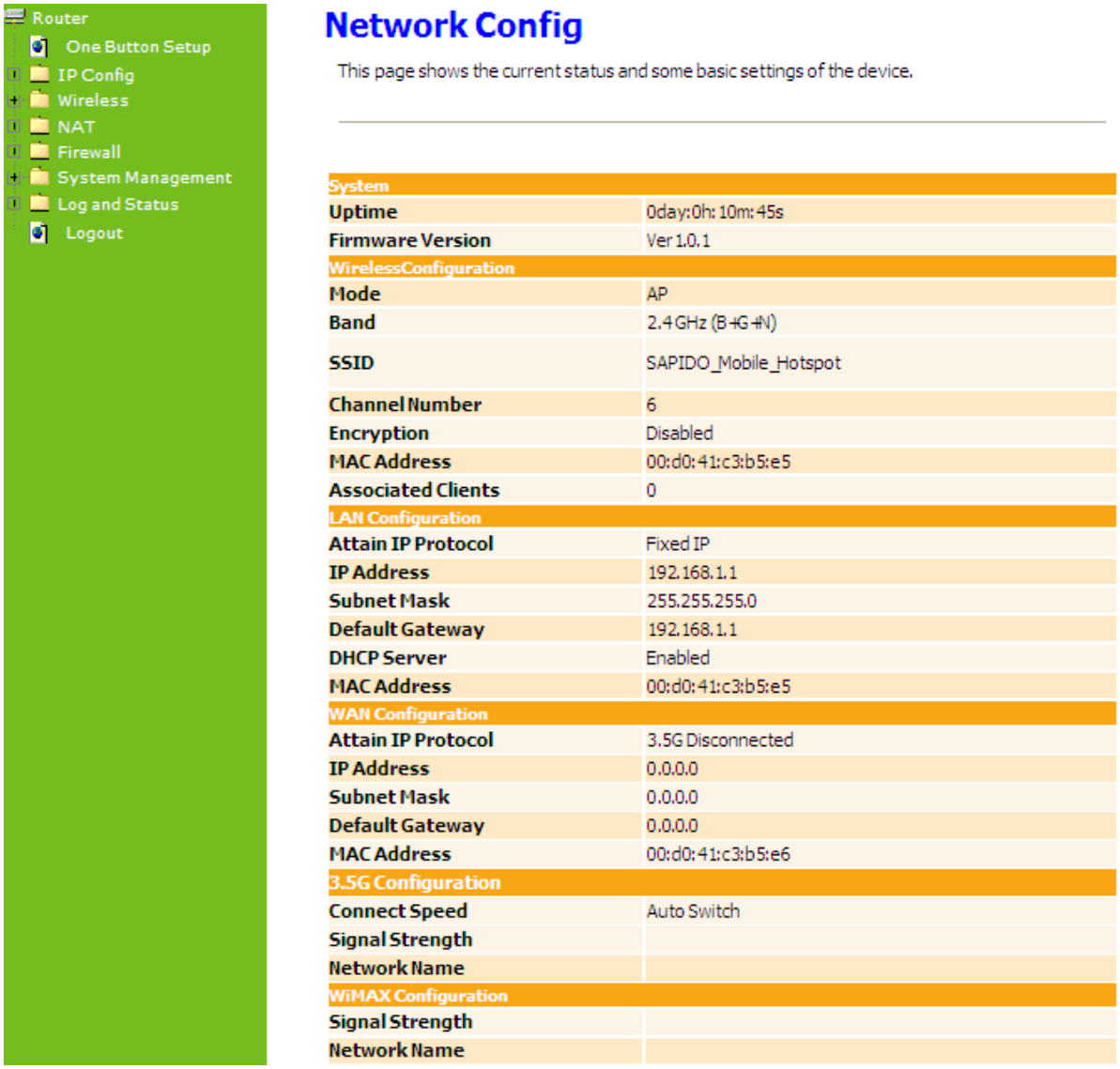
NOTE: If the IP address of Gateway is not displayed, or the address followed by ‘IP Address’ begins with “169.x.x.x”, please recheck network connection between your computer and router, and / or go to the beginning of this chapter, to recheck every step of network setup procedure.

3.3.1 Log into Web GUI

After obtained an IP address from wireless router, please start your web browser, and input the IP address of the wireless router in address bar.

Notes: The default IP of the wireless router is 192.168.1.1

Enter the User name and Password in to the blank and then Click **Login**. The default values for User Name and Password are **admin** (all in lowercase letters).



Chapter 4 Internet Connection

This Chapter describes how to setup MB-1132 to the internet. The 3G mini router is delivered with the following factory default parameters.

Default IP address: 192.168.1.1

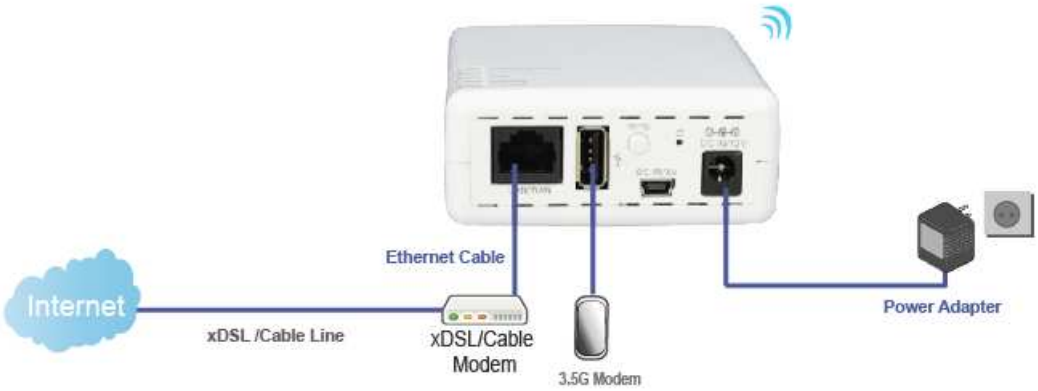
Default IP subnet mask: 255.255.255.0

Web login user name: admin

Web login password: admin

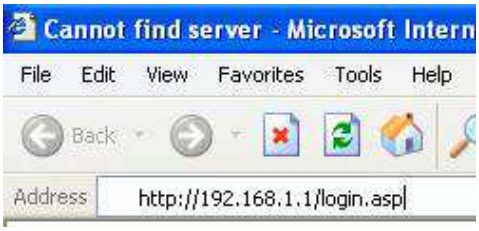
4.1 Plug and Play

The MB-1132 supports three types of Internet connection: 3G/4G modem card, wire or wireless connection via xDSL/Cable modem. Just connect the 3G/4G modem card or Ethernet cable to MB-1132, the router will recognize it automatically.



4.2 Connect to Internet through web GUI

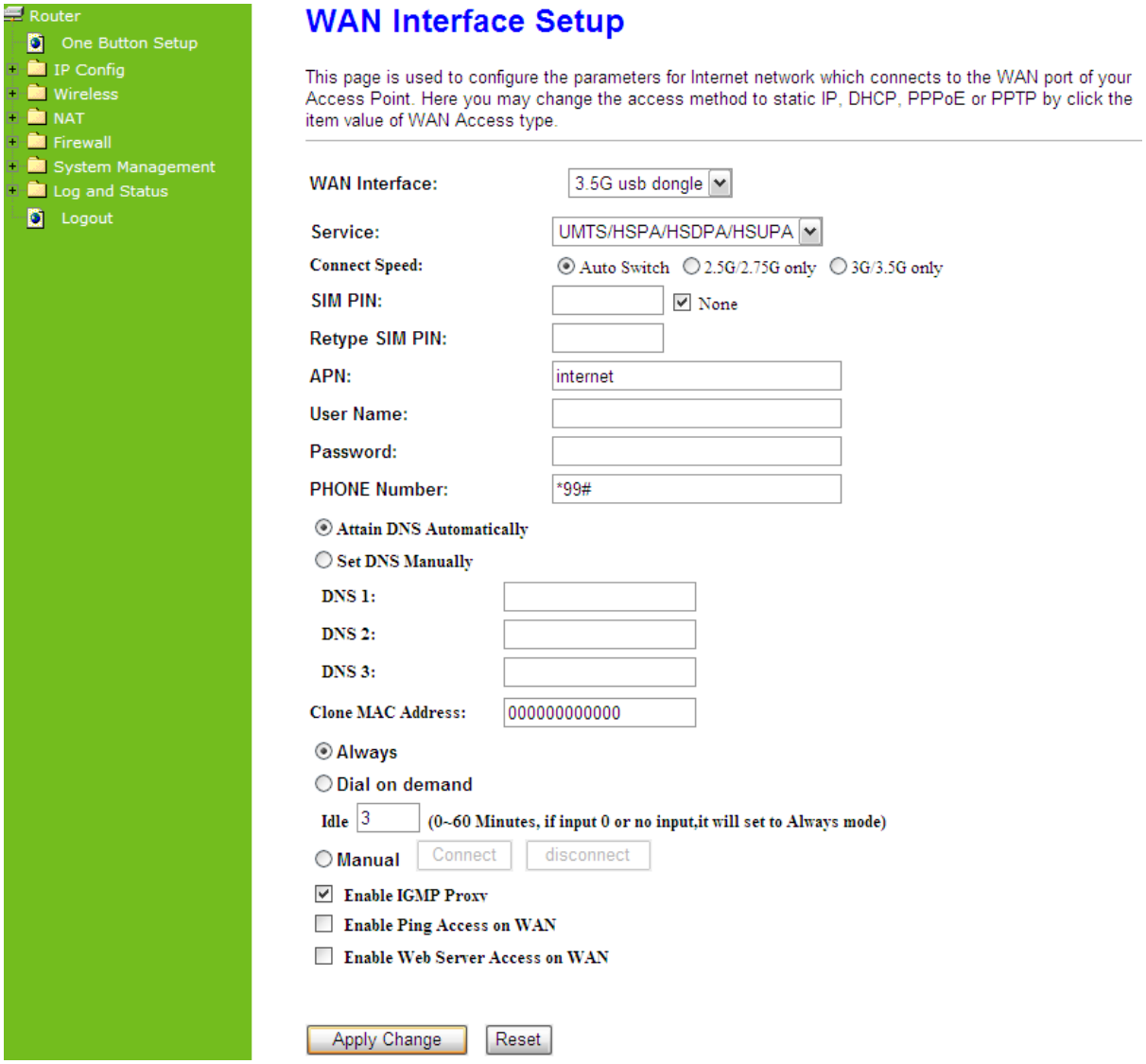
1. Open a Web browser, and enter http://192.168.1.1 (Default Gateway) into the blank.



2. Enter the User name and Password in to the blank and then Click “Login”. The default values for User Name and Password are **admin** (all in lowercase letters).

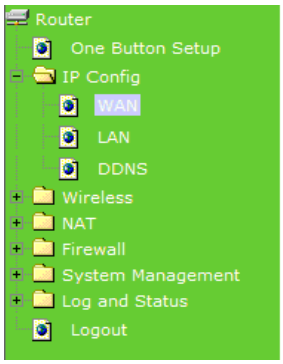
4.2.1 WAN Interface- 3.5G USB dongle

Select WAN under the IP Config menu, and choose 3.5G usb dongle for the WAN Interface. Its associated setting will show as below.



Item	Description
APN (Access Point Name)	Enter the access point name. If you do not know the setting information for APN, check with your 3.5G service provider.
User Name	Enter the User Name supplied by the provider.
Password	Enter the password supplied by the provider.
Phone Number	Enter the subscribing access point's phone number.
DNS	Select **Attain DNS Automatically**. Or select **Set DNS Manually**, if you want to specify the DNS, and enter the DNS provided by your ISP in DNS 1 2 3.
Clone Mac Address	Some ISPs require MAC address registration. In this case, enter the MAC address registered to the provider to "Clone MAC Address"
Always / Dial on demand	If your 3G USB adapter is a pay-as-you-go plan base, select “Dial on demand” and disconnect the connection when you don't use the internet.
Apply Change	Click “Finish” to complete the setting

Rebooting this product is started. Please wait for a while.

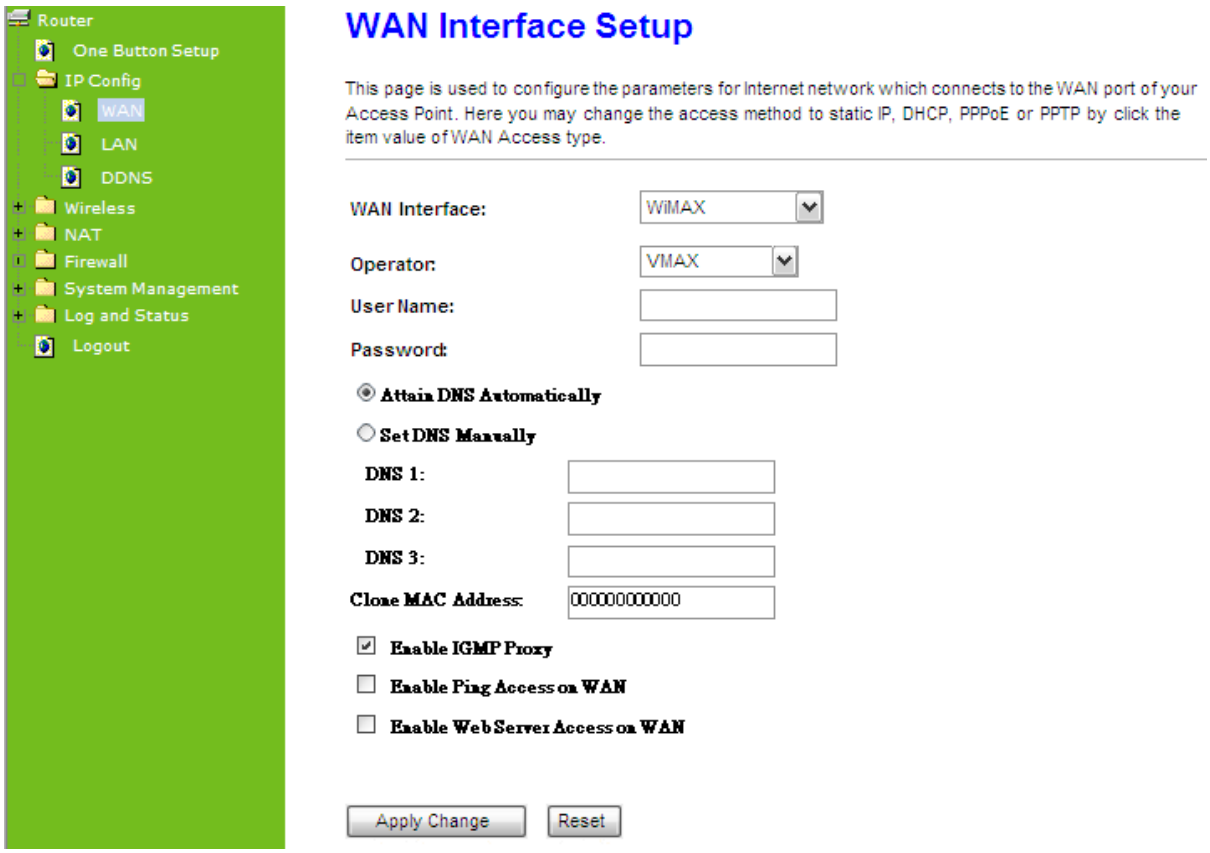


Change setting successfully!

System is configuring, after 19 seconds....

4.2.2 WAN Interface–WiMAX

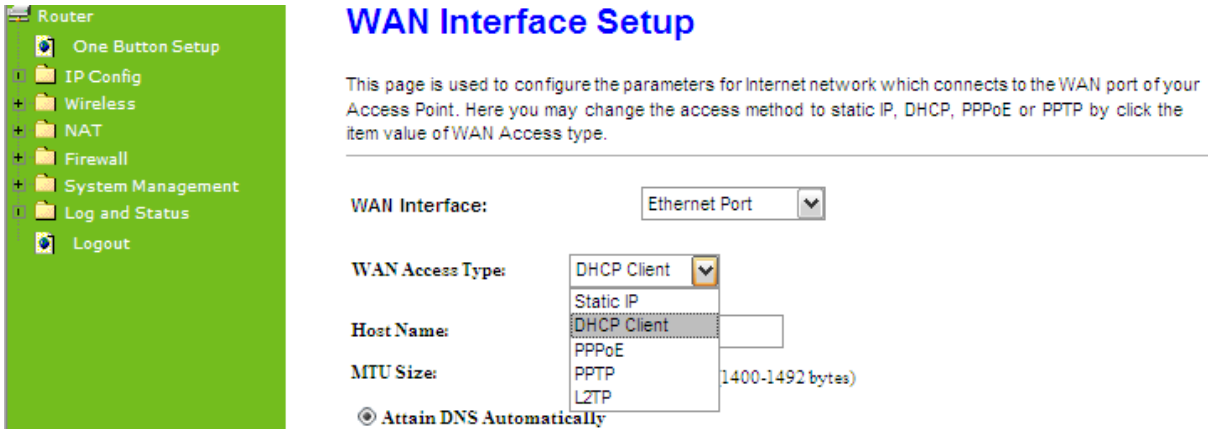
If you are using WiMAX as the WAN Type, please select **WiMAX USB Dongle**.



Item	Description
Operator	Select operator from the drop down list
User Name	Enter the User Name supplied by the provider.
Password	Enter the password supplied by the provider.
DNS	Select “Attain DNS Automatically”. Or select “Set DNS Manually” if you want to specify the DNS, and enter the DNS provided by your ISP in DNS 1 2 3.
Clone Mac Address	Some ISPs require MAC address registration. In this case, enter the MAC address registered to the provider to "Clone MAC Address"
Always / Dial on demand	If your 3G USB adapter is a pay-as-you-go plan base, select “Dial on demand” and disconnect the connection when you don't use the internet.
Apply Change	Click “Finish” to complete the setting

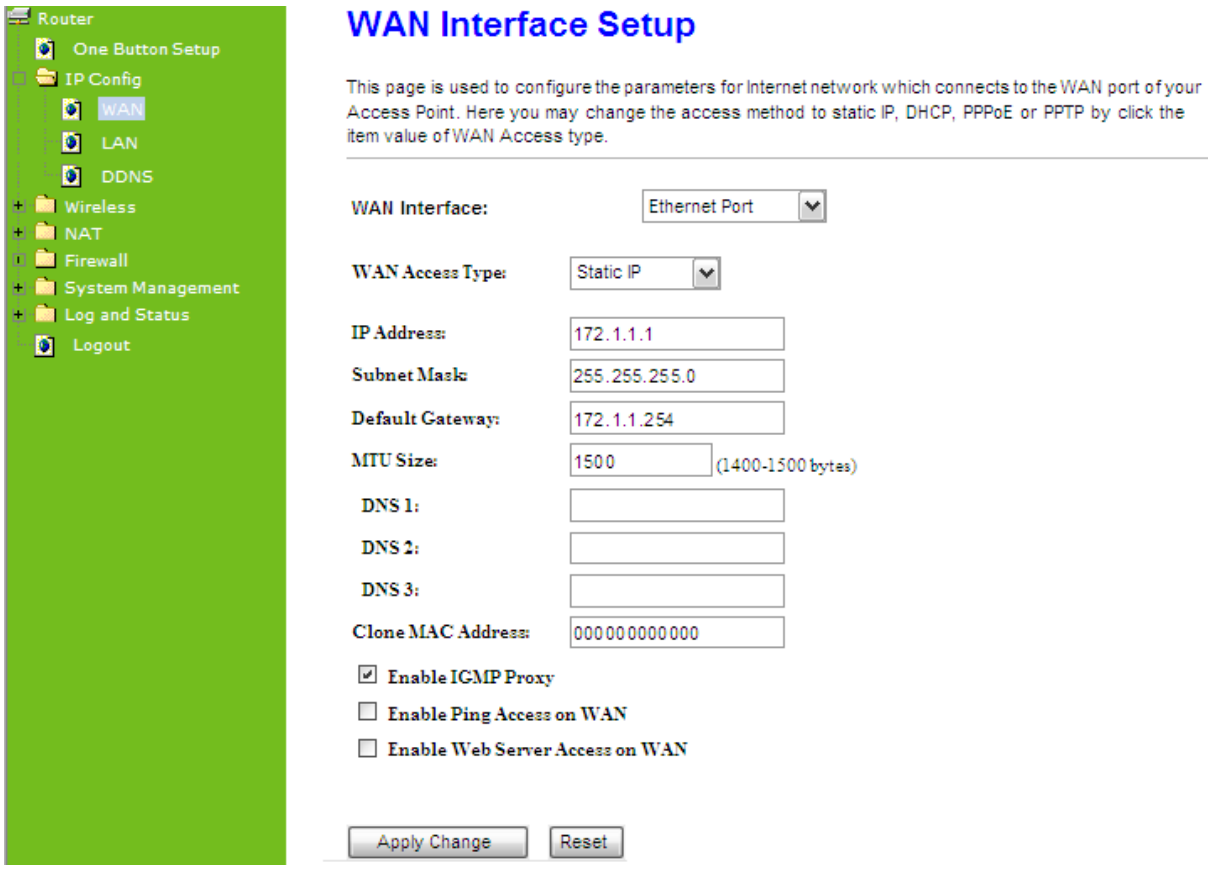
4.2.3 WAN Interface- Ethernet Port

The WAN access type is depended on the service that you contract with the provider. The MB-1132 provides five selections for the WAN access type, **Static IP, DHCP Client, PPPoE, PPTP, L2TP**. Check with your ISP if you don't know the WAN type.



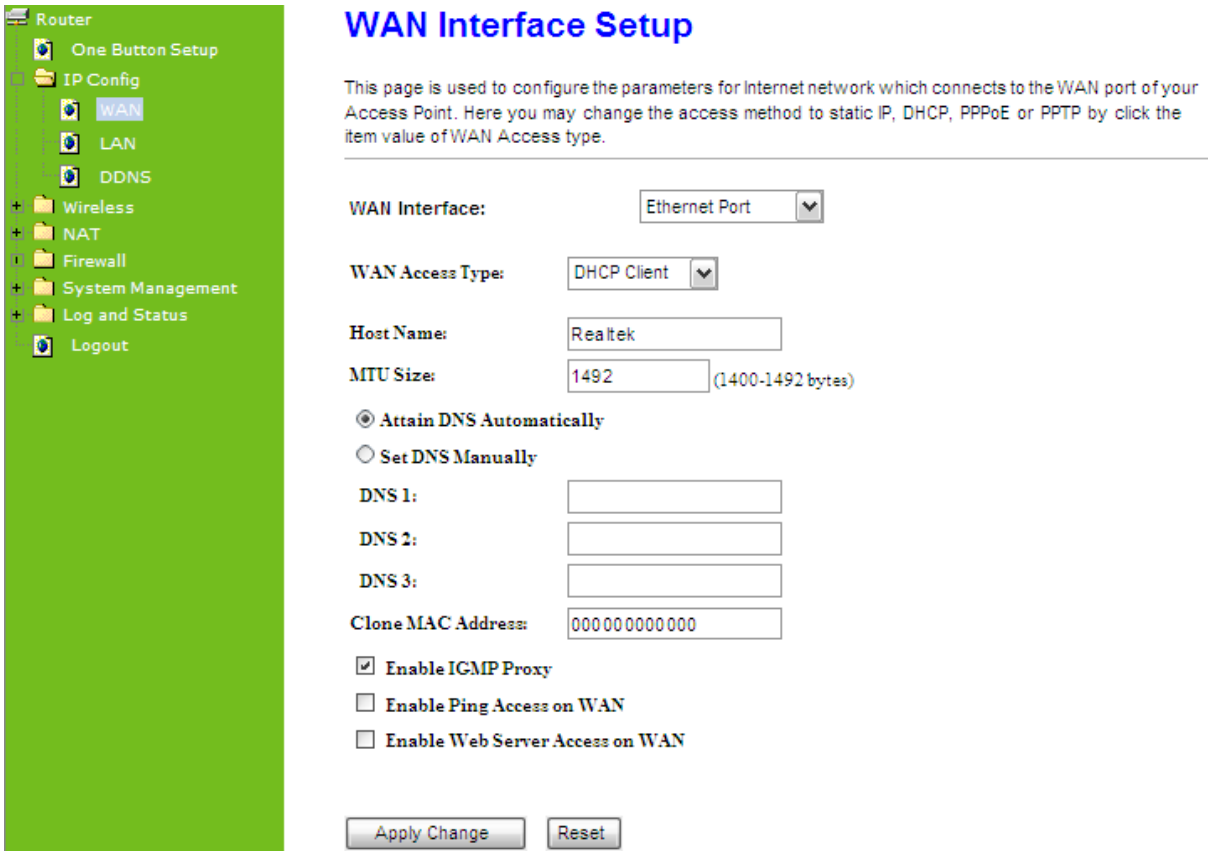
4.2.3.1 Access Type- Static IP

Select **WAN** under the **IP Config** menu, and choose Ethernet Port for the WAN Interface. Its associated setting will show up.



Item	Description
WAN Access Type	Select **“Static IP”**
IP Address	Enter the IP address which is provided by your ISP.
Subnet Mask	Please enter the Subnet Mask address
Default Gateway	Input ISP Default Gateway Address, .
DNS	Input DNS information which is provided by your ISP
Clone Mac Address	Some ISPs require MAC address registration. In this case, enter the MAC address registered to the provider to "Clone MAC Address"
Apply Change & Reset	Click on “Apply Change” to save the setting date, or you may click on “Reset” to clear all the input data.

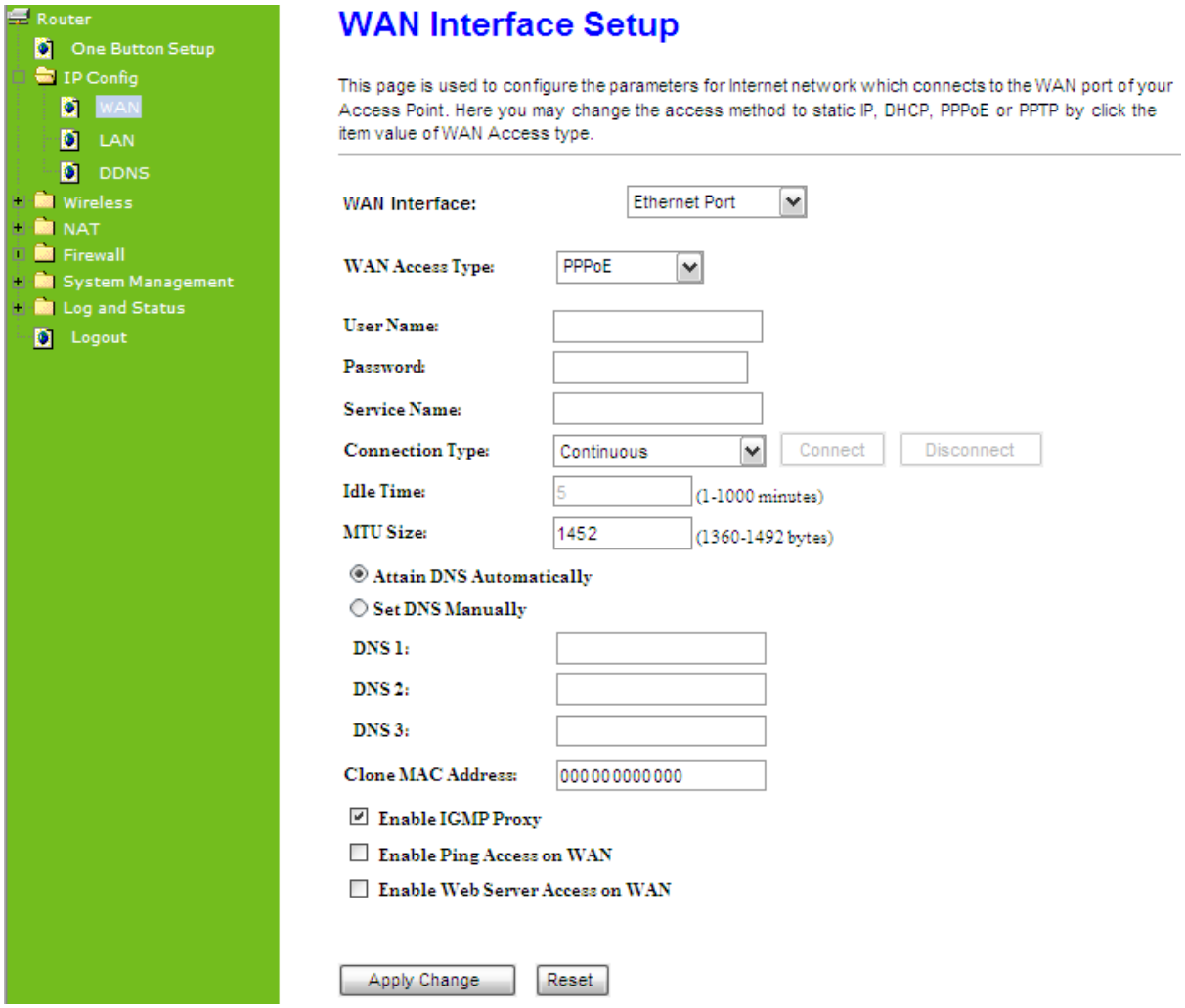
4.2.3.2 Access Type- DHCP Client



Item	Description
WAN Access Type	Select **"DHCP Client"**
Host Name	You can keep the default as the host name, or input a specific name if required by your ISP.

DNS	Select **Attain DNS Automatically**. Or select **Set DNS Manually**, if you want to specify the DNS, and enter the DNS provided by your ISP in DNS 1 2 3.
Clone Mac Address	Some ISPs require MAC address registration. In this case, enter the MAC address registered to the provider to "Clone MAC Address"
Apply Change & Reset	Click on “Apply Change” to save the setting date, or you may click on “Reset” to clear all the input data.

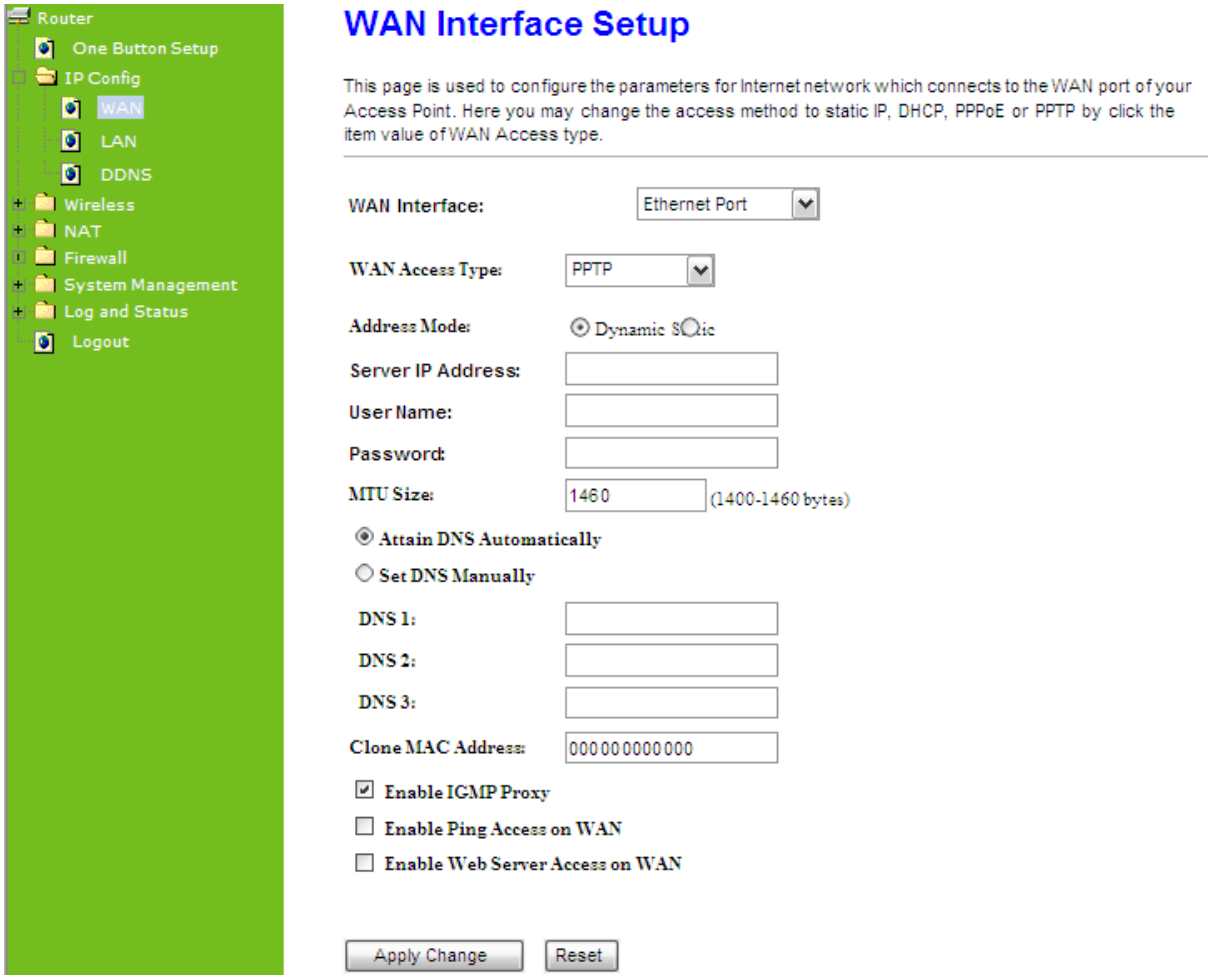
4.2.3.3 Access Type- PPPoE



Item	Description
WAN Access Type	Select **"PPPoE"**
User Name	Input your user name provided by your ISP. If you don’t know, please check with your ISP.
Password	Input the password provided by your ISP.

Service Name	Input the service name provided by your ISP.
Connection Type	Three types for select: **Continues, Connect on Demand,** and **Manual.**
DNS	Select **Attain DNS Automatically**. Or select **Set DNS Manually**, if you want to specify the DNS, and enter the DNS provided by your ISP in DNS 1 2 3.
Clone Mac Address	Some ISPs require MAC address registration. In this case, enter the MAC address registered to the provider to "Clone MAC Address"
Apply Change & Reset	Click on “Apply Change” to save the setting date, or you may click on “Reset” to clear all the input data.

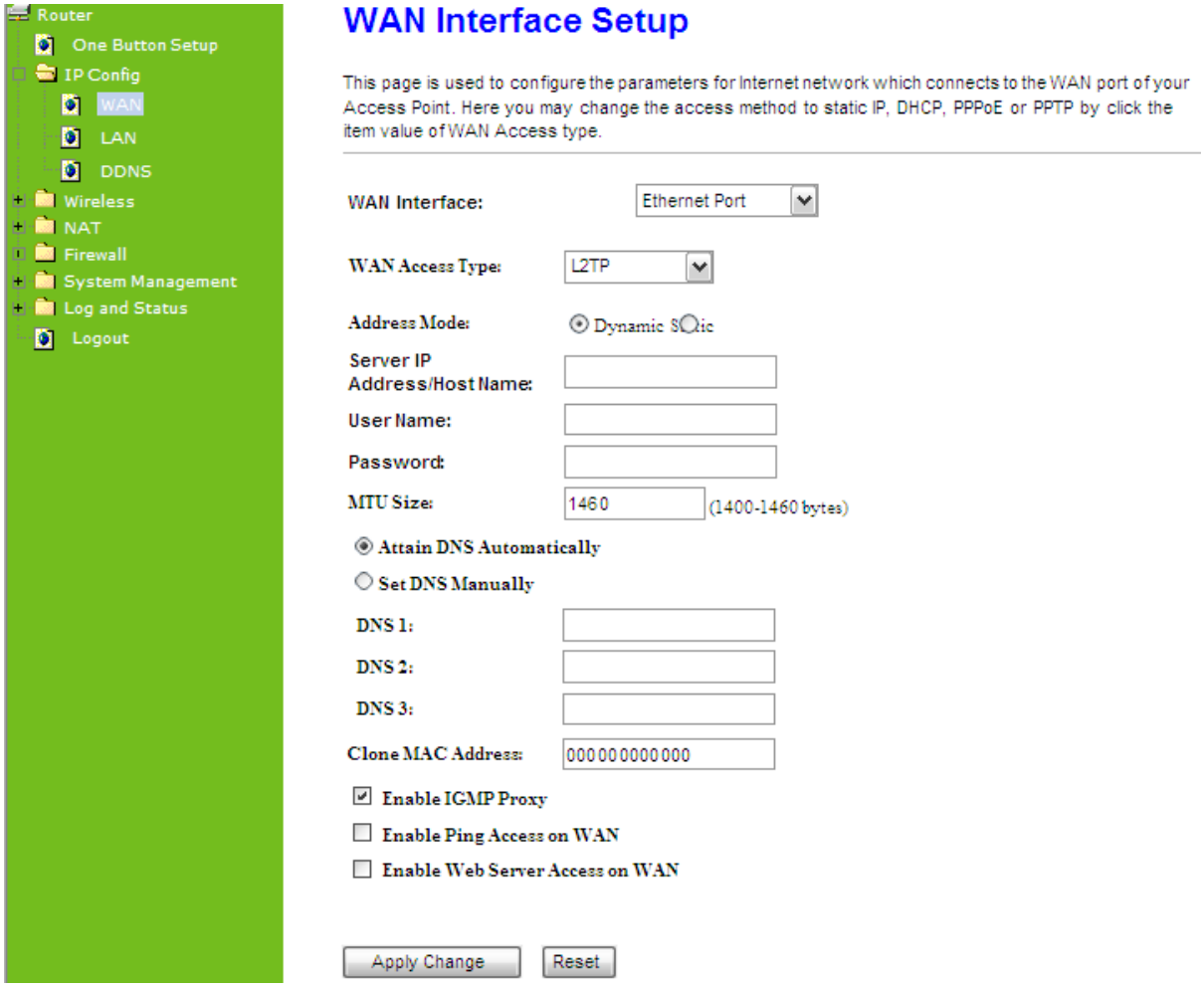
4.2.3.4 Access Type- PPTP



Item	Description
WAN Access Type	Select **"PPTP"**

Server IP Address	Input your server IP address provided by your ISP. If you don't know, please check with your ISP.
User Name	Input PPTP account provided by your ISP.
Password	Input the password provided by your ISP.
DNS	Select **Attain DNS Automatically**. Or select **Set DNS Manually**, if you want to specify the DNS, and enter the DNS provided by your ISP in DNS 1 2 3.
Clone Mac Address	Some ISPs require MAC address registration. In this case, enter the MAC address registered to the provider to "Clone MAC Address"
Apply Change & Reset	Click on "Apply Change" to save the setting date, or you may click on "Reset" to clear all the input data.

4.2.3.5 Access Type- L2TP

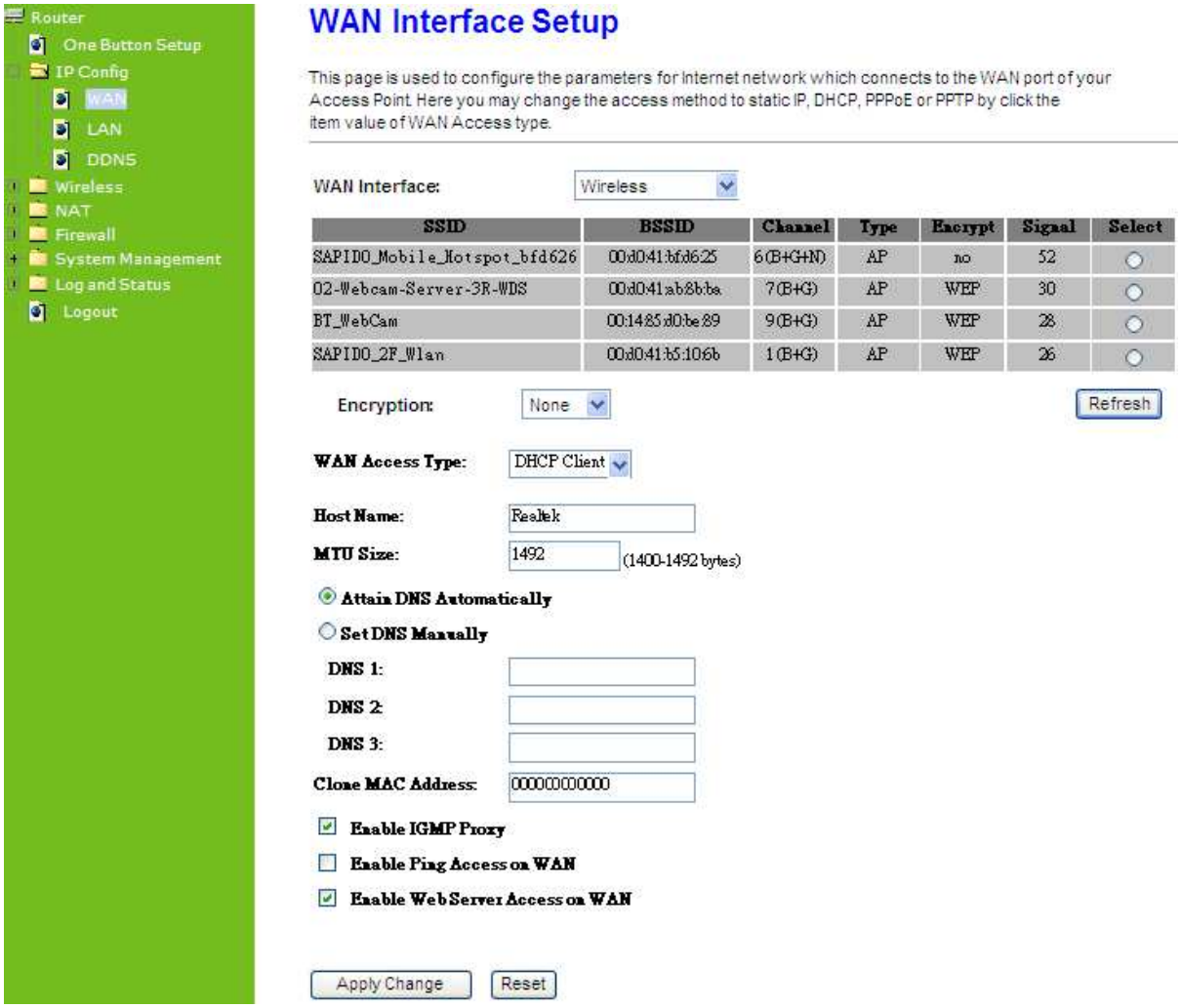


Item	Description

WAN Access Type	Select **"PPTP"**
Server IP Address / Host Name	Input your server IP address or Host Name provided by your ISP. If you don't know, please check with your ISP.
User Name	Input PPTP account provided by your ISP.
Password	Input the password provided by your ISP.
DNS	Select **Attain DNS Automatically**. Or select **Set DNS Manually**, if you want to specify the DNS, and enter the DNS provided by your ISP in DNS 1 2 3.
Clone Mac Address	Some ISPs require MAC address registration. In this case, enter the MAC address registered to the provider to "Clone MAC Address"
Apply Change & Reset	Click on "Apply Change" to save the setting date, or you may click on "Reset" to clear all the input data.

4.2.4 WAN Interface- Wireless

Select WAN under the IP Config menu, and choose wireless for the WAN Interface. Its associated setting will show as below.



Item	Description
Refresh	You can see a list of available Wireless networks. Select the preferred one.
Encryption type	Select the Encryption type form the drop-down list.
WAN Access Type	Select Static IP, DHCP, PPPoE, PPTP or L2TP.
DNS	Select **Attain DNS Automatically**. Or select **Set DNS Manually**, if you want to specify the DNS, and enter the DNS provided by your ISP in DNS 1 2 3.
Clone Mac Address	Some ISPs require MAC address registration. In this case, enter the MAC address registered to the provider to "Clone MAC Address"
Apply Change & Reset	Click on “Apply Change” to save the setting date, or you may click on “Reset” to clear all the input data.

Chapter 5 Wireless Setup

5.1 Wireless Setup

There are two ways to setup wireless LAN with MB-1132. You can use either way to setup Wireless LAN.

5.1.1 Setup Wireless LAN by WPS button

You can setup wireless LAN easily by using the WPS button if both WLAN router and the WLAN adapter (client) are WPS supported. Before starting the setup, please check the things below:

- Get ready for Internet connection with MB-1132
- The WLAN adapter is finished installation and plug in your computer/ laptop.

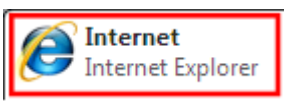
There are two ways to setup a wireless LAN between MB-1132 and your wireless adapter:

1. Setup with WPS button, if your wireless adapter has a physical WPS button.

   (1) Press the WPS button from MB-1132 and wait for Wireless/WPS LED light changed into red.

   (2) Press the WPS button from the adapter until the setup window shows up.

   (3) Open a web browser to check the internet connection.

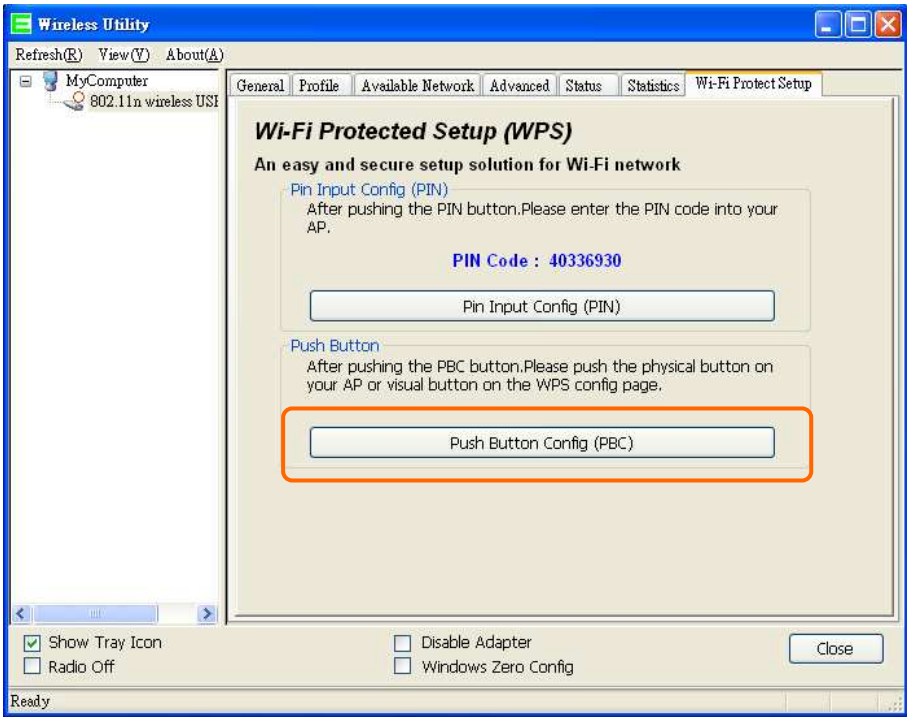


2. Setup without WPS button if you wireless adapter has only virtual WPS function.

(1) Open Wireless adapter utility.

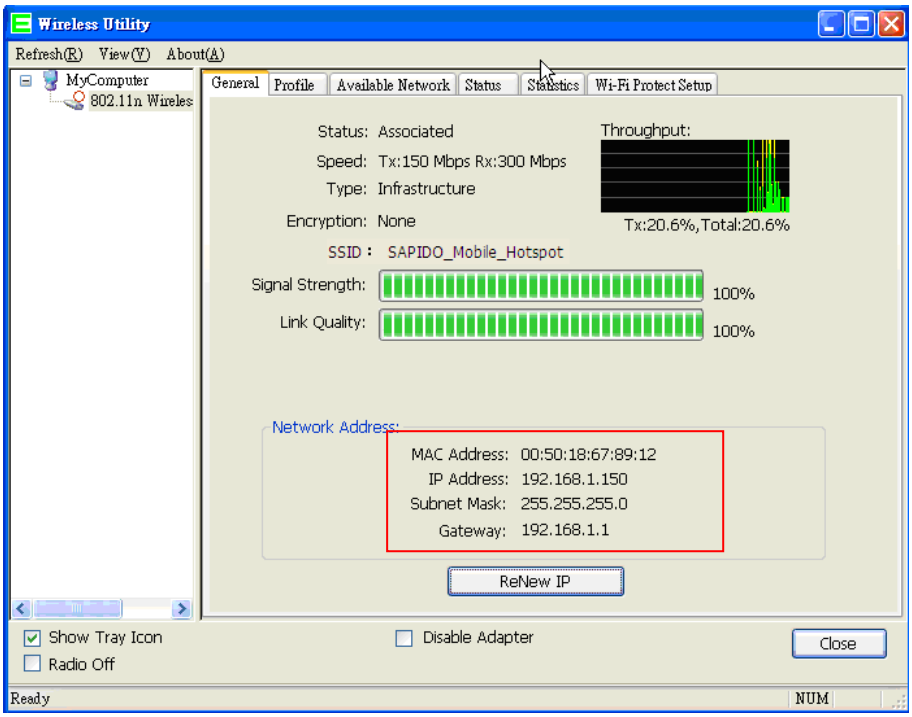
(2) Press the WPS button from MB-1132 and wait for Wireless/WPS LED light changed into red.

(3) Back to the WLAN adapter utility and click its “PBC” button.



The utility will start searching the destination connection.

(4) Confirm the information form the Utility

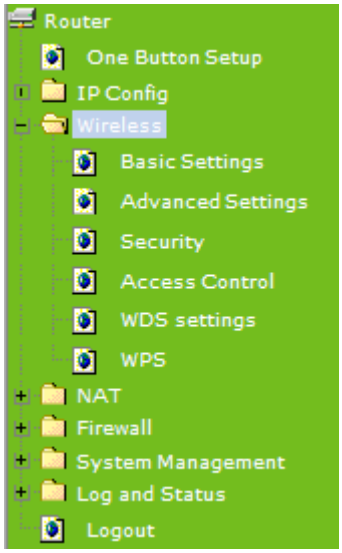


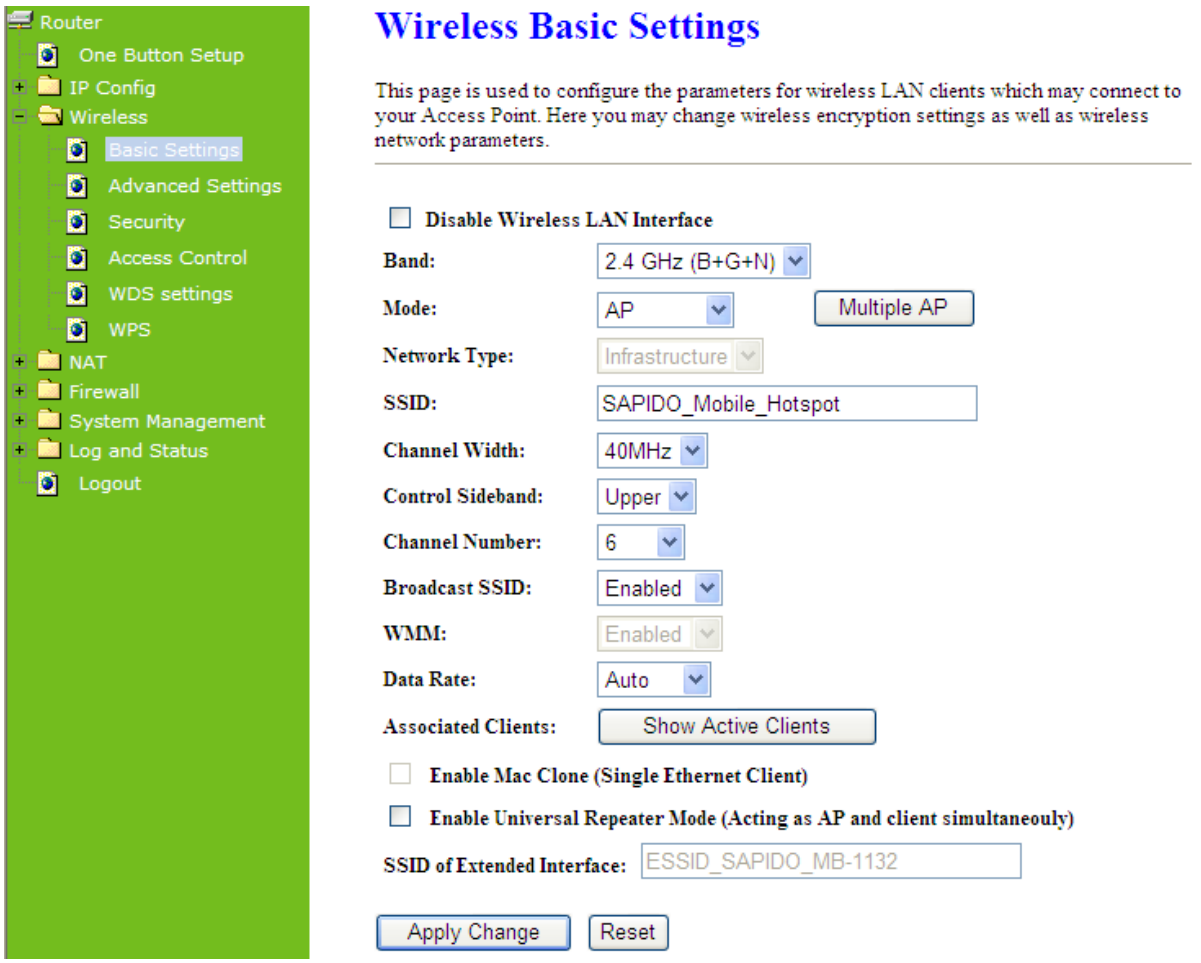
(5) After completes the WPS setup. Please confirm that it can be connected to the Internet.

Note: The setup image might be some differences when using other branded Adapter.

5.1.2 Wireless Basic Setup from Web GUI

The Wireless Basic Settings include Band, Mode, SSID, Channel Number and other wireless settings.



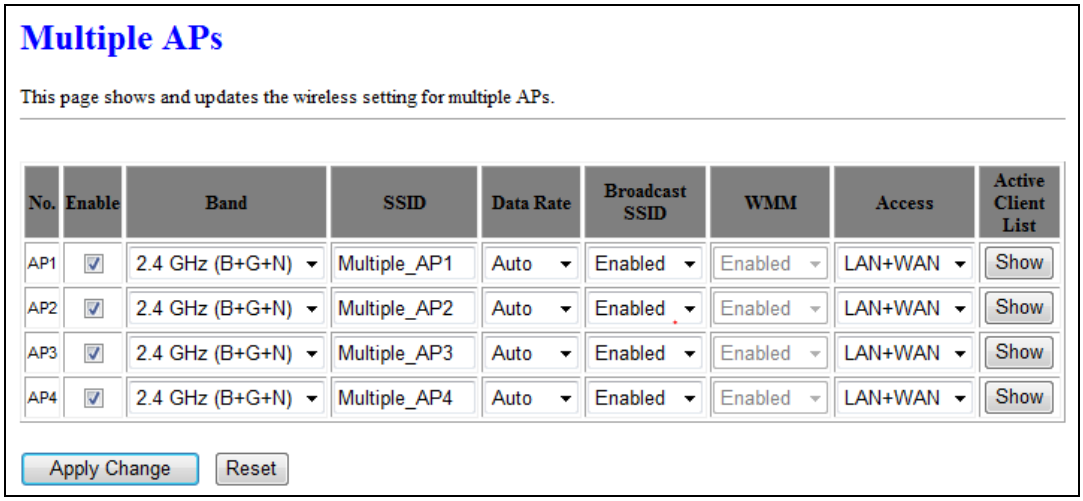


Item	Description
Disable Wireless LAN Interface	Turn off the wireless service.
Band	Select the frequency. It has 6 options: 2.4 GHz (B/G/N/B+G/G+N/B+G+N).
Mode	Select the mode. It has 4 modes to select: (AP, Client, WDS, AP+WDS). Multiple AP: Please check Section 4.1.2.1.
SSID	Service Set identifier, users can define to any or keep as default.
Channel Width	Please select the channel width, it has 2 options: 20MHZ, and 40MHZ.
Control Sideband	Enable this function will control your router use lower or upper channel.
Channel Number	Please select the channel; it has Auto, 1, 2~12 or 13.
Broadband SSID	User may choose to enable Broadcast SSID or not.
Data Rate	Please select the data transmission rate.
Associate Clients	Check the AP connectors and the Wireless connecting status.
Enable MAC Clone	Clone the MAC address for ISP to identify.

(Single Ethernet Client)	
Enable Universal Repeater Mode (Acting as AP and Client simultaneously)	Allow to equip with the wireless way conjunction upper level, provide the bottom layer user link in wireless and wired way in the meantime. (The IP that bottom layer obtains is from upper level.) Please also check Section 4.1.2.2 for more details.
SSID of Extended Interface	While linking the upper level device in wireless way, you can set SSID to give the bottom layer user search.
Apply Change & Reset	Click on “Apply Change” to save the setting date, or you may click on “Reset” to clear all the input data.

5.1.2.1 Multiple APs

The MB-1132 can register up to 4 SSIDs (wireless LAN group). It can be used as if there are multiple wireless LAN access points with one product. Each SSID could be set with different data rate, WMM and access type.



Item	Description
Enable	Enable or disable the service.
Band	Select the frequency.
SSID	Enter the SSID
Data Rate	Select the data transmission rate.
Access	Enable this function can let clients use two access types: a. LAN+WAN: the client can access to the Internet and access in the router’s GUI. b. WAN: the client can only access to the Internet.
Active Client List	Display the properties of the client which is connecting successfully.

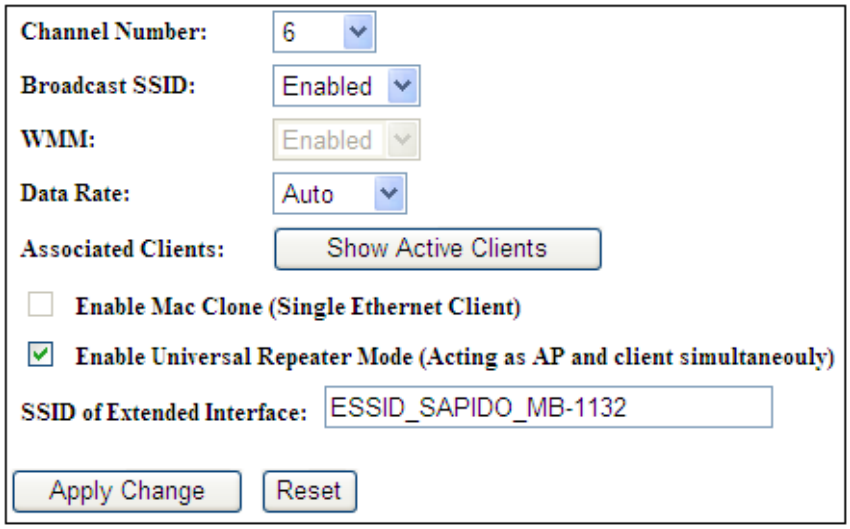
Apply Change & Reset	Click on “Apply Change” to save the setting date, or you may click on “Reset” to clear all the input data.

5.1.2.2 Enable Universal Repeater Mode

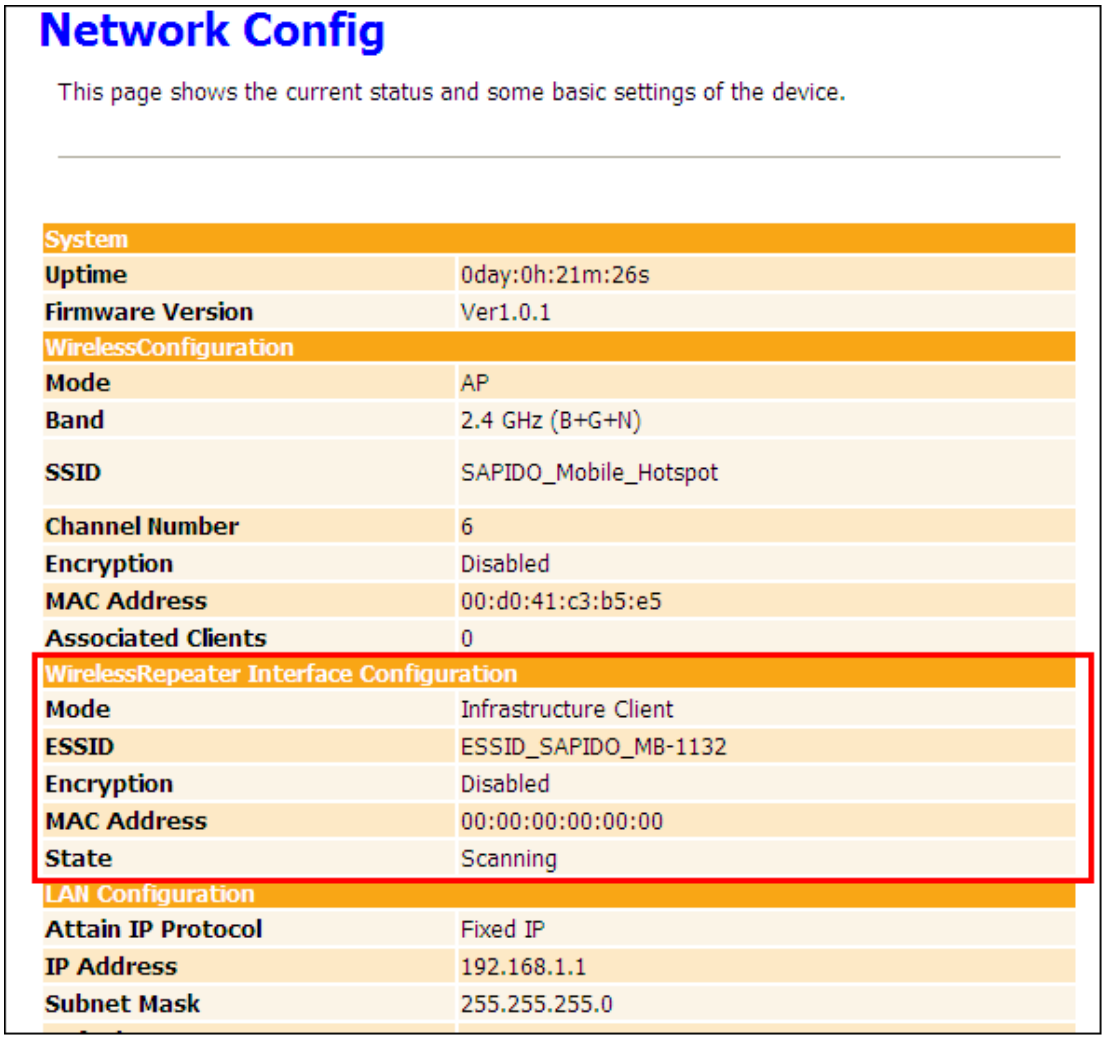
The router can act as Station and AP at the same time. It can use Station function to connect to a Root AP and use AP function to service all wireless stations within its coverage.

Example: When users enable the Universal Repeater to connect to the upper level device, please fill in the upper level device’s channel and SSID. Click on “Apply Changes” to save the settings.

(Please disable the DHCP service first)



Users can use the Network Configuration page to check the information about “Wireless Repeater Interface Configuration”.



5.2 Wireless Security Setup

Here users define the security type and level of the wireless network. Selecting different methods provides different levels of security. **Please note that using any encryption may cause a significant degradation of data throughput on the wireless link.** There are five Encryption types supported: “None”, “WEP”, “WPA (TKIP)”, ”WPA2(AES)”, and “WPA2 Mixed”. Enabling WEP can protect your data from eavesdroppers. If you do not need this feature, select “None” to skip the following setting.

1. Encryption -- WEP Key

(1) Set WEP Key: This section provides 64bit and 128bit WEP encryptions and two different shared key formats (ASCII and Hex) for wireless network.

(2) 802.1x Authentication

It is a safety system by using authentication to protect your wireless network.

2. Encryption – WPA (WPA, WPA2, and WPA2 Mixed), WPA Authentication Mode

(1) Enterprise (RADIUS): Please fill in the RADIUS server Port, IP Address, and Password

(2) Personal (Pre-Shared Key): Pre-Shared Key type is ASCII Code; the length is between 8 to 63 characters. If the key type is Hex, the key length is 64 characters.

3. Apply Change & Reset: Click on “Apply Changes” to save setting data. Or click ‘Reset’ to reset all the input data.

5.3 Wireless Access Control

Access Control allows user to block or allow wireless clients to access this router. Users can select the access control mode, then add a new MAC address with a simple comment and click on “Apply Change” to save the new addition. To delete a MAC address, select its corresponding checkbox under the Select column and click on “Delete Selected” button.

Take the wireless card as the example.

1. Please select Deny Listed in Wireless Access Control Mode first, and then fill in the MAC address what you plan to block in the MAC Address field. Click “Apply Changes” to save the setting.

2. The MAC address what you set will be displayed on the Current Access Control List.

3. The wireless client will be denied by the wireless router.

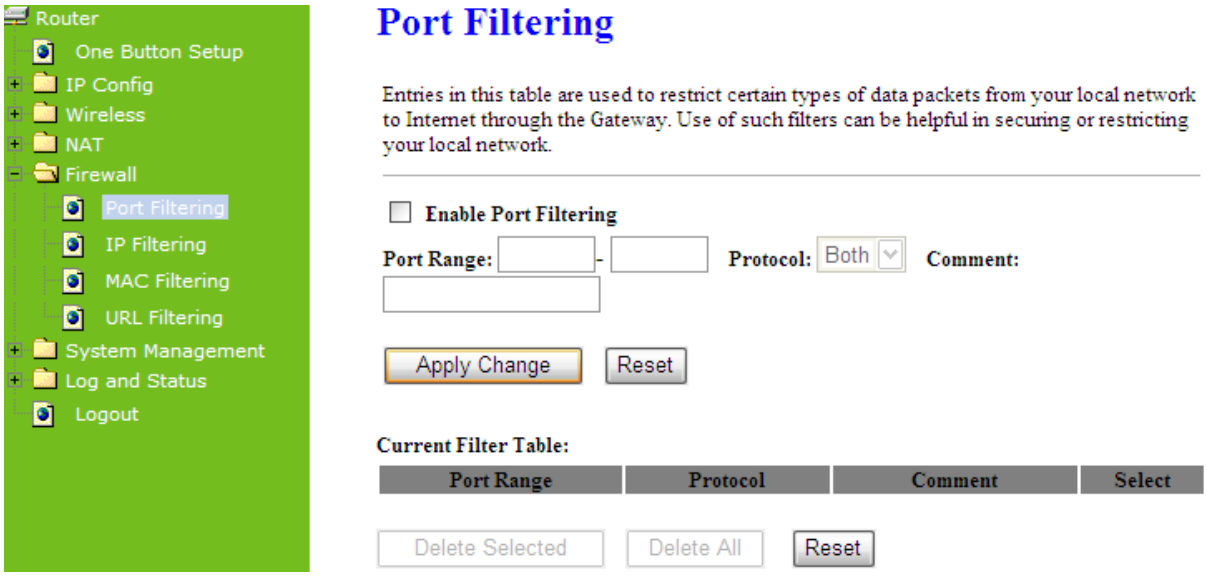
Chapter 6 Security Setup

This section contains configurations for the MB-1132's advanced functions such as: virtual server, DMZ, and Firewall to provide your network under a security environment.

6.1 NAT

6.1.1 Visual Server

The Virtual Server feature allows users to create Virtual Servers by re-directing a particular range of service port numbers (from the WAN port) to a particular LAN IP address.



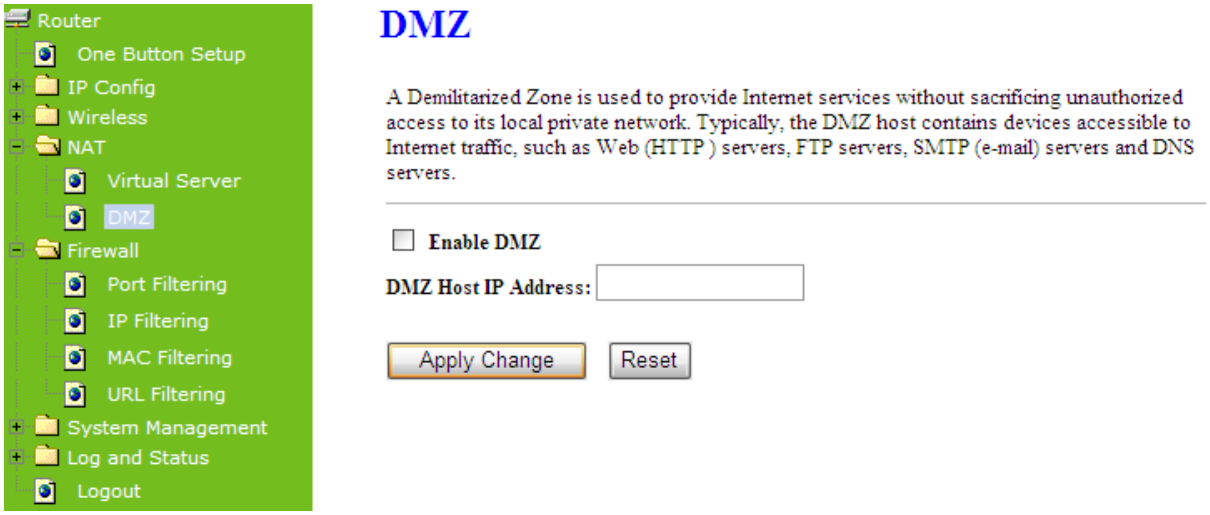
Item	Description
Enable Port Forwarding	Select to enable Port Forwarding service or not.
IP Address	Specify the IP address which receives the incoming packets.
Protocol	Select the protocol type.
Port Range	Enter the port number, for example 80-80 or 20-22
Comment	Add comments for this port forwarding rule.
Apply Change & Reset	Click on "Apply Changes" to save the setting data. Or you may click on "Reset" to clear all the input data.
Current Port Forwarding Table	It will display all port forwarding regulation you made.
Delete Selected & Delete All	Click "Delete Selected" will delete the selected item. Click "Delete All" will delete all items in this table.
Reset	Click "Reset" to cancel.

Please find the following figure to know that what the virtual server is. The web server is located on 192.168.1.100, forwarding port is 80, and type is TCP+UDP.

Configuration:

6.1.2 DMZ

The DMZ feature allows one local user to be exposed to the Internet for special-purpose applications like Internet gaming or videoconferencing. When enabled, this feature opens all ports to a single station and hence renders that system exposed to intrusion from outside. The port forwarding feature is more secure because it only opens the ports required by that application.



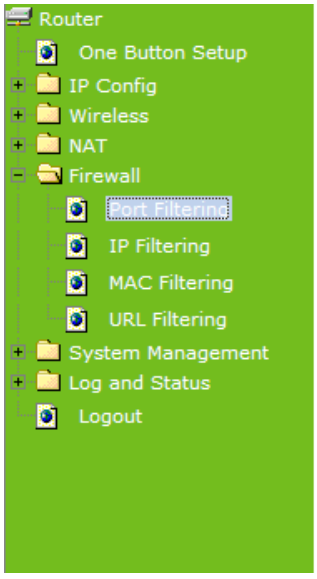
Item	Description
Enable DMZ	It will enable the DMZ service if you select it.
DMZ Host IP Address	Please enter the specific IP address for DMZ host.

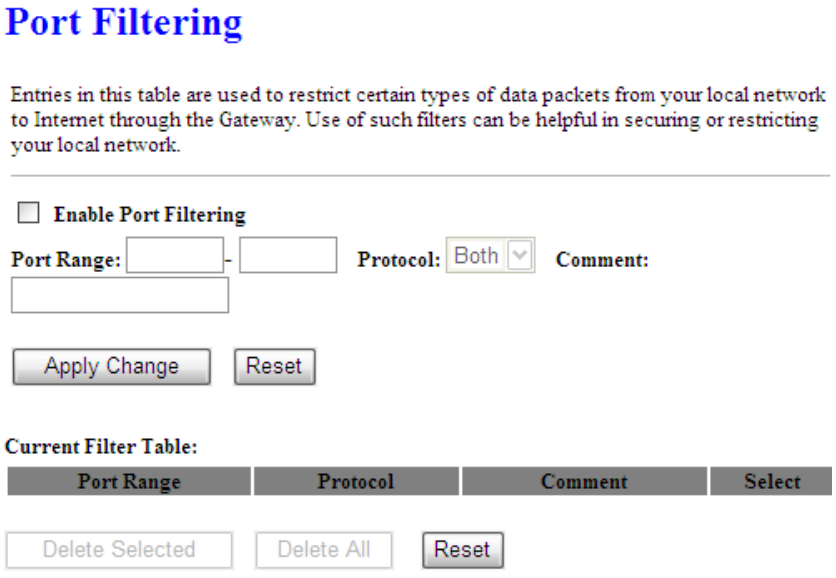
Apply Changes & Reset	Click on “Apply Changes” to save the setting data. Or you may click on “Reset” to clear all the input data.

6.2 Firewall

6.2.1 Port Filtering

When enabled packets are denied access to Internet/filtered based on their port address.





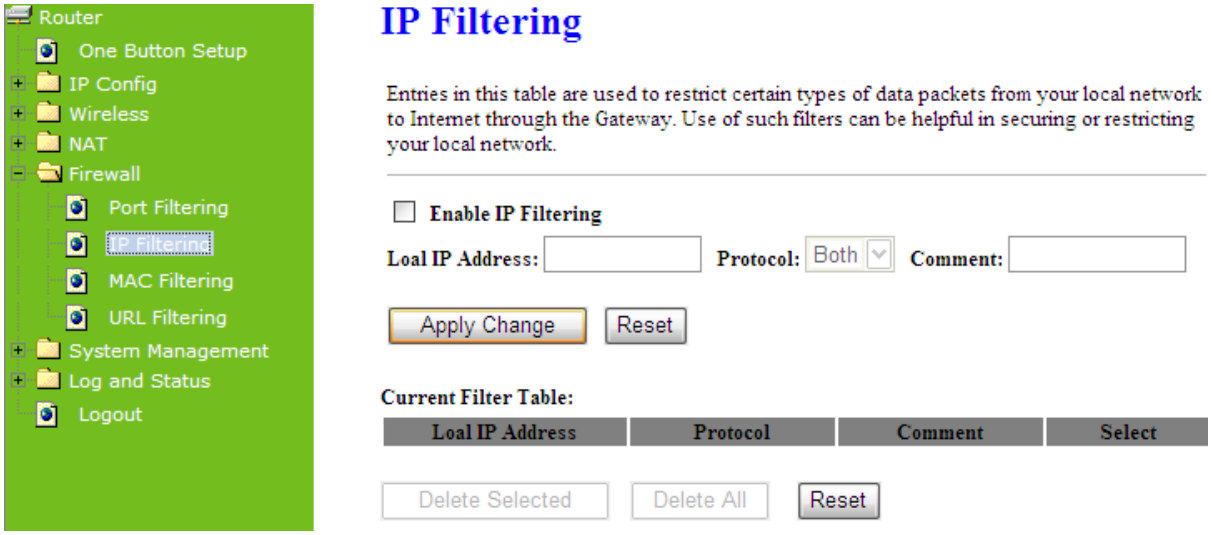
Item	Description
Enable Port Filtering	Select Enable Port Filtering to filter ports.
Port Range	Enter the port number that needs to be filtered.
Protocol	Please select the protocol type of the port.
Comment	You can add comments for this regulation.
Apply Changes & Reset	Click on “Apply Changes” to save the setting data. Or you may click on “Reset” to clear all the input data.

Current Filter Table	It will display all ports that are filtering now.
Delete Selected & Delete All	Click “Delete Selected” will delete the selected item. Click “Delete All” will delete all items in this table.
Reset	You can click “Reset” to cancel.

Port 80 has been blocked as the following illustrate.

6.2.2 IP Filtering

When enabled, LAN clients are blocked / filtered from accessing the Internet based on their IP addresses.

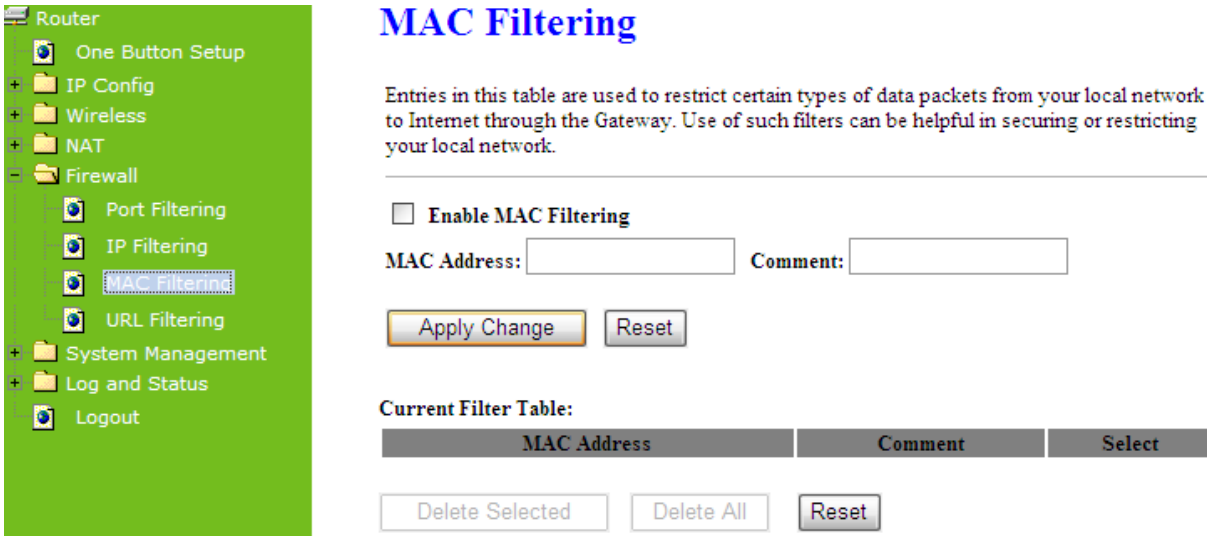


Item	Description
Enable IP Filtering	Please select Enable IP Filtering to filter IP addresses.
Local IP Address	Please enter the IP address that needs to be filtered.

Protocol	Please select the protocol type of the IP address
Comment	You can add comments for this regulation.
Apply Changes & Reset	Click on “Apply Changes” to save the setting data. Or you may click on “Reset” to clear all the input data.
Current Filter Table	It will display all ports that are filtering now.
Delete Selected & Delete All	Click “Delete Selected” will delete the selected item. Click “Delete All” will delete all items in this table.
Reset	You can click “Reset” to cancel.

6.2.3 MAC Filtering

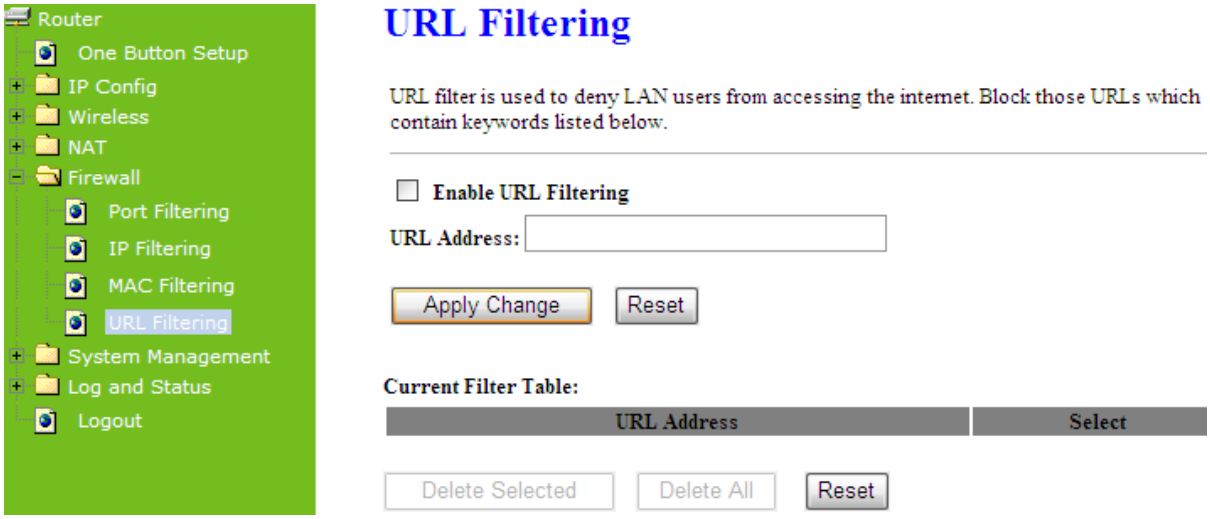
When enabled, filtering will be based on the MAC address of LAN computers. Any computer with its MAC address on this list will be blocked from accessing the Internet.



Item	Description
Enable MAC Filtering	Please select Enable MAC Filtering to filter MAC addresses.
MAC Address	Please enter the MAC address that needs to be filtered.
Comment	You can add comments for this regulation.
Apply Changes & Reset	Click on **“Apply Changes”** to save the setting data. Or you may click on “**Reset”** to clear all the input data.
Current Filter Table	It will display all ports that are filtering now.
Delete Selected & Delete All	Click “**Delete Selected”** will delete the selected item. Click “**Delete All”** will delete all items in this table.
Reset	You can click “**Reset”** to cancel.

6.2.4 URL Filtering

URL Filtering is used to restrict users to access specific websites in internet



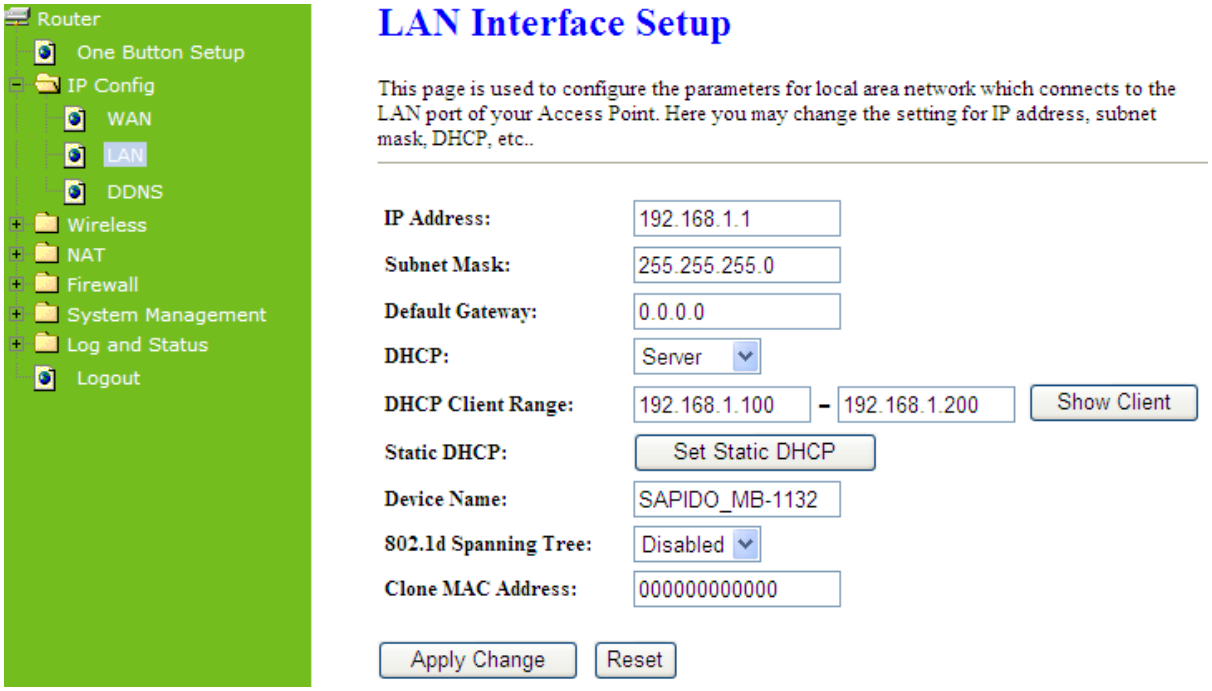
Item	Description
Enable URL Filtering	Please select Enable MAC Filtering to filter MAC addresses
URL Address	Please enter the MAC address that needs to be filtered.
Apply Changes & Reset	Click on “Apply Changes” to save the setting data. Or you may click on “Reset” to clear all the input data.
Current Filter Table	It will display all ports that are filtering now.
Delete Selected & Delete All	Click “**Delete Selected”** will delete the selected item. Click “**Delete All”** will delete all items in this table.
Reset	You can click “**Reset”** to cancel.

Notes: This function will not be in effect when the Virtual Server is enabled. Please disable Virtual Server before activate the URL Filtering function.

Chapter 7 Advanced Setup

7.1 LAN Interface Setup

This page is used to configure the parameters for local area network that connects to the LAN ports of your router. Here you may change the setting for IP address, subnet mask, DHCP, etc.



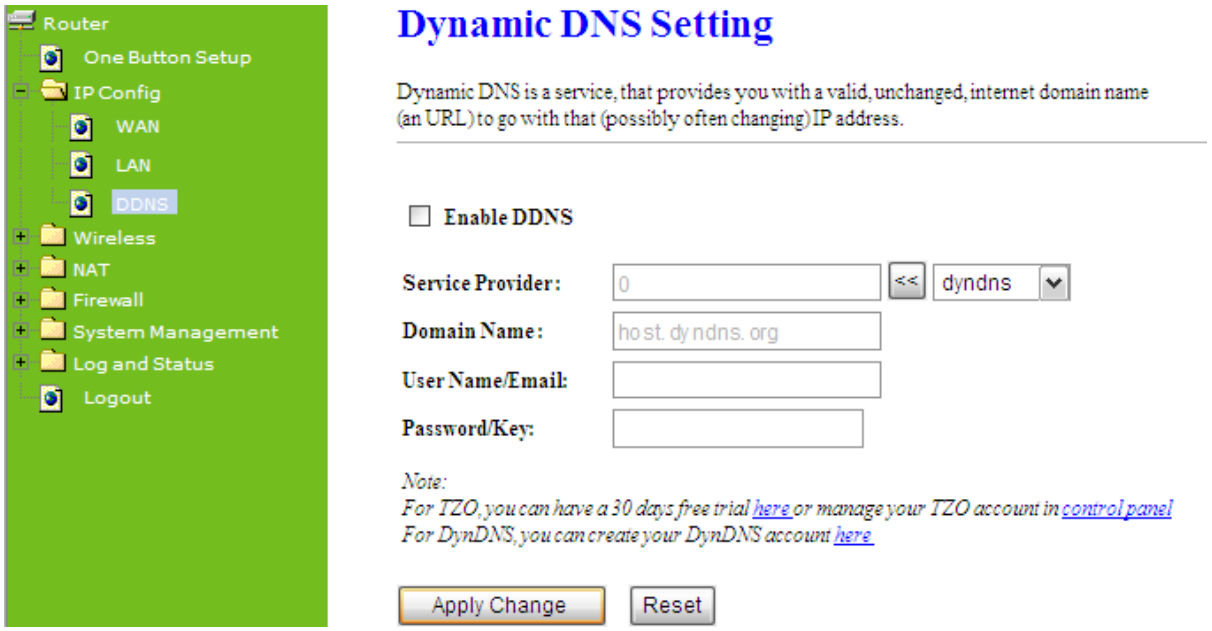
Item	Description
IP Address	The default IP address is 192.168.1.1
Subnet Mask	Please enter the Subnet Mask address
Default Gateway	Please enter the Default Gateway address for LAN interface.
DHCP	Click to select “Disabled”, “Client” or “Server” in different operation mode of LAN access point
DHCP Client Range	Fill in the start IP address and end IP address to allocate a range of IP addresses; client with DHCP function set will be assigned an IP address from the range
Static DHCP	Configures how static DHCP address are assigned to client (only available when DHCP server is enabled)
Device Name	Configures the device name of the router.
802.1d Spanning Tree	IEEE 802.1d Spanning Tree Protocol (STP) is a link layer network protocol that ensures a loop-free topology for any bridged LAN. Select enable or disable the IEEE 802.1d Spanning Tree function

	from drop-down list.
Clone MAC Address	If your ISP asks you to enter a specific MAC Address, please input the correct info at the column.
Apply Change & Reset	Click on “Apply Changes” to save the setting data. Or you may click on “Reset” to clear all the input data.

7.2 Dynamic DNS Setting

You can assign a fixed host and domain name to a dynamic Internet IP address. Each time the router boots up, it will re-register its domain-name-to-IP-address mapping with the DDNS service provider. This is the way Internet users can access the router through a domain name instead of its IP address.

Note: make sure that you have registered with a DDNS service provider before enabling this feature.

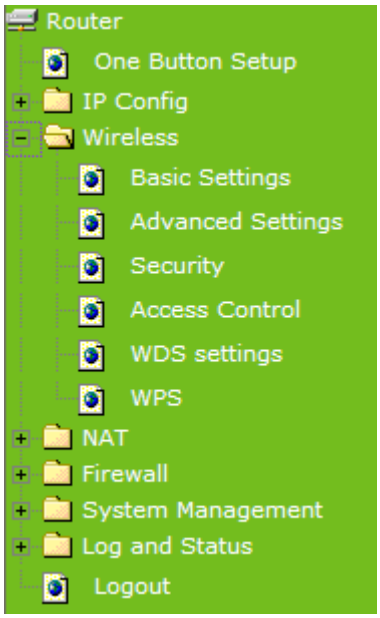


Please enter Domain Name, User Name/Email, and Password/Key. After entering, click on “Apply Changes” to save the setting, or you may click on Reset to clear all the input data.

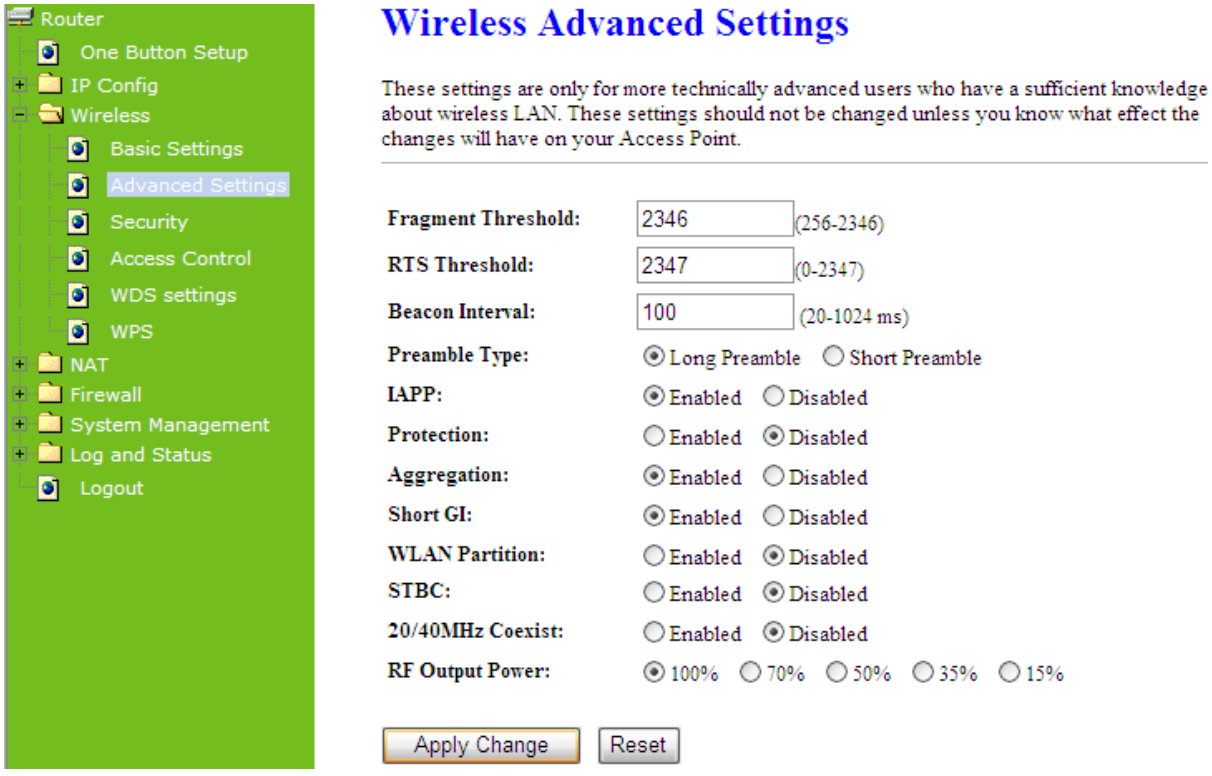
Item	Description
Enable/Disable DDNS	Select enable to use DDNS function. Each time your IP address to WAN is changed, and the information will be updated to DDNS service provider automatically.
Service Provider	Choose correct Service Provider from drop-down list, here including DynDNS, TZO, ChangeIP, Eurodns, OVH, NO-IP, ODS, Regfish embedded in MB-1132.
User Name/Email	User name is used as an identity to login Dynamic-DNS service.

Password/Key	Password is applied to login Dynamic-DNS service.
Apply & Cancel	Click on Apply button to continue. Click on Cancel button to clear the setting on this page.

7.3 Wireless Advanced Setup



In Advanced Settings page, more 802.11 related parameters are tunable

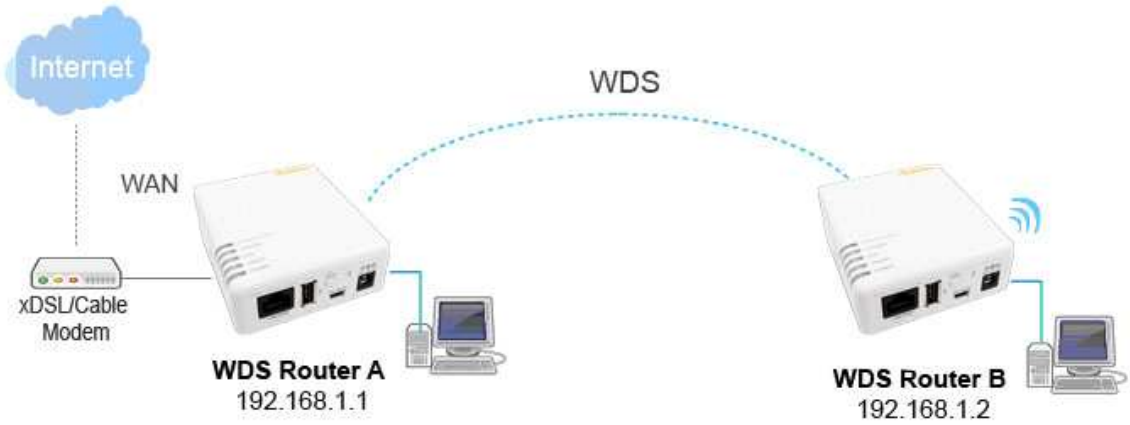


Item	Description
Fragment Threshold	To identify the maxima length of packet, the over length packet will be fragmentized. The allowed range is 256-2346, and default length is 2346.
RTS Threshold	This value should remain at its default setting of 2347. The range is 0~2347. Should you encounter inconsistent data flow, only minor modifications are recommended. If a network packet is smaller than the present RTS threshold size, the RTS/CTS mechanism will not be enabled. The router sends Request to Send (RTS) frames to a particular receiving station and negotiates the sending of a data frame. After receiving an RTS, the wireless station responds with a Clear to Send (CTS) frame to acknowledge the right to begin transmission. Fill the range from 0 to 2347 into this blank.
Beacon Interval	Beacons are packets sent by an access point to synchronize a wireless network. Specify a beacon interval value. The allowed setting range is 20-1024 ms..
Preamble Type	PLCP is Physical layer convergence protocol and PPDU is PLCP protocol data unit during transmission, the PSDU shall be appended to a PLCP preamble and header to create the PPDU. It has 2 options: Long Preamble and Short Preamble.
IAPP	Inter-Access Point Protocol is a recommendation that describes an optional extension to IEEE 802.11 that provides wireless access-point communications among multivendor systems.
Protection	Please select to enable wireless protection or not.
Aggregation	Enable this function will combine several packets to one and transmit it. It can reduce the problem when mass packets are transmitting.
Short GI	Users can get better wireless transmission efficiency when they enable this function.
RF Output Power	Users can adjust RF output power to get the best wireless network environment. Users can choose from 100%, 70%, 50%, 35%, and 15%.
Apply Changes & Reset	Click on Apply Changes to save the setting data. Or you may click on Reset to clear all the input data.

7.3.1 WDS Settings

When selected in the Basic Settings page and enabled here, Wireless Distribution System (WDS) enables the router to be used as a wireless bridge. Two Wireless-N Routers in bridge mode can communicate with each other through their wireless interfaces. To accomplish this, all wireless routers should be set to the same channel and the MAC address of other AP / Routers should be entered in the table.

The WDS explanation is as the following picture.



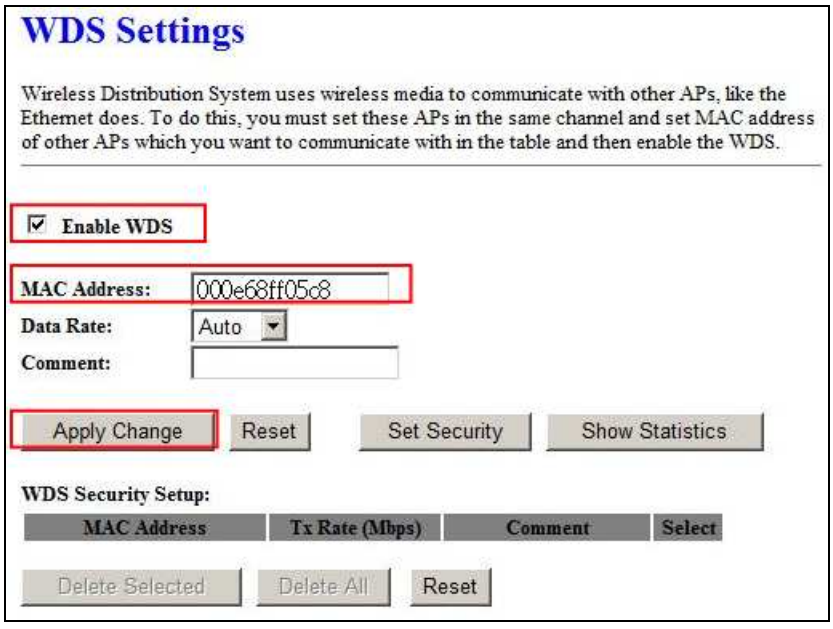
1. Setup Router A

(1) Please check the MAC address and Channel number from WDS Router A.

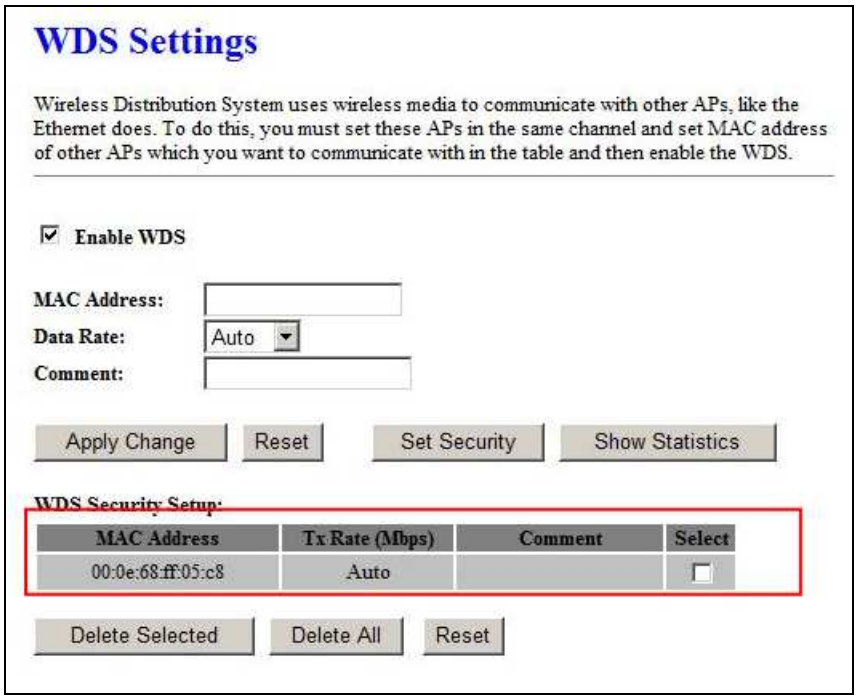
WirelessConfiguration	
Mode	AP
Band	2.4 GHz (B+G+N)
SSID	SAPIDO_Mobile_Hotspot
Channel Number	6
Encryption	Disabled
MAC Address	00:d0:41:c3:b5:e5
Associated Clients	0
LAN Configuration	
Attain IP Protocol	Fixed IP
IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1
DHCP Server	Enabled
MAC Address	00:d0:41:c3:b5:e5

(2) Set the connection mode to “AP+WDS” from “Wireless Basic Setting”, and then select the channel number (in this example is "6”). Click Apply Changes to save the setting.

(3) Enable WDS function from the page – "WDS Setting", and then fill in the MAC address of Router B. Click Apply Changes to save the setting data.

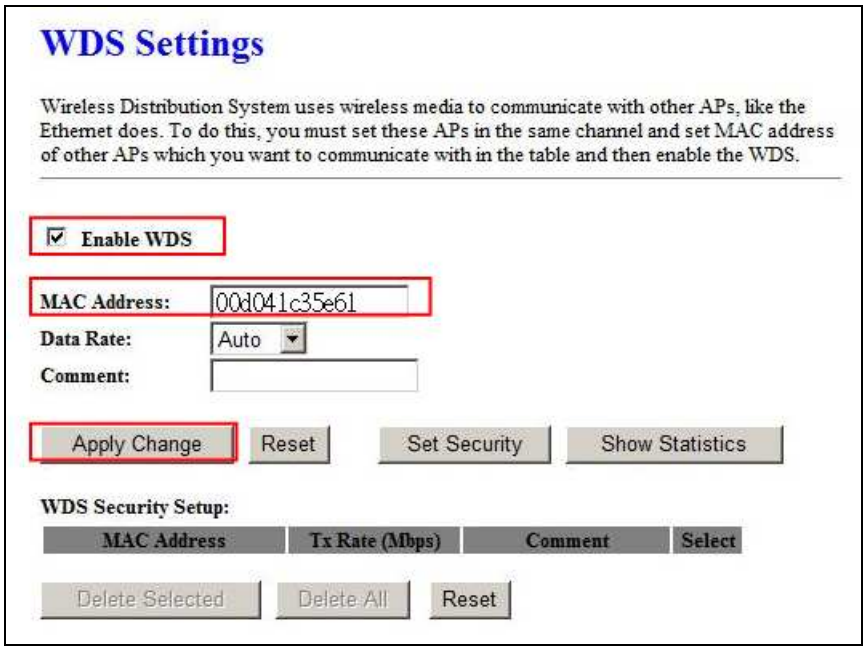


(4) The WDS AP List will show the WDS device MAC address after reboot.

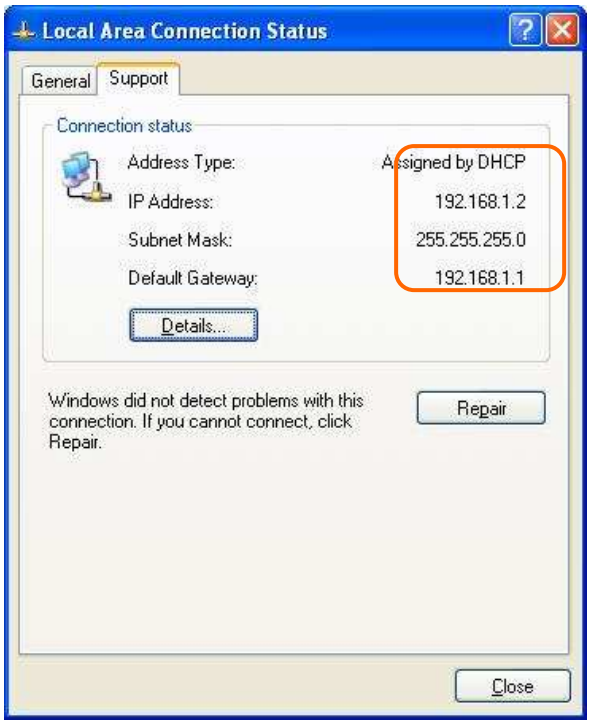


2. Move on the setup to WDS Router B

(1) Input Router A's MAC address.



(2) You will receive an IP address from Router A.



If you failed the WDS setting, please check you setting with refer to the list below.

	Router A	**Router B**
Mode	Router	AP
LAN IP Address	Set the same segment as the router B(Note) Example :192.168.1.1	Set the same segment as the router A(Note) Example :192.168.1.2
Security	Set the same security as Router B	Set the same security as Router A
DHCP	Enable	Disable
MAC Address	Same as Router B	Same as Router A

Note: LAN IP address should be under the same segment but cannot be the same number.

7.3.2 WPS

This page allows user to change the setting for WPS (Wi-Fi Protected Setup). Using this feature could let your wireless client atomically synchronize it's setting and connect to the Access Point in a minute without any hassle. MB-1132 could support both Self-PIN or PBC modes, or use the WPS button (at real panel) to easy enable the WPS function.

PIN model, in which a PIN has to be taken either from a sticker label or from the web interface of the WPS device. This PIN will then be entered in the AP or client WPS device to

connect.

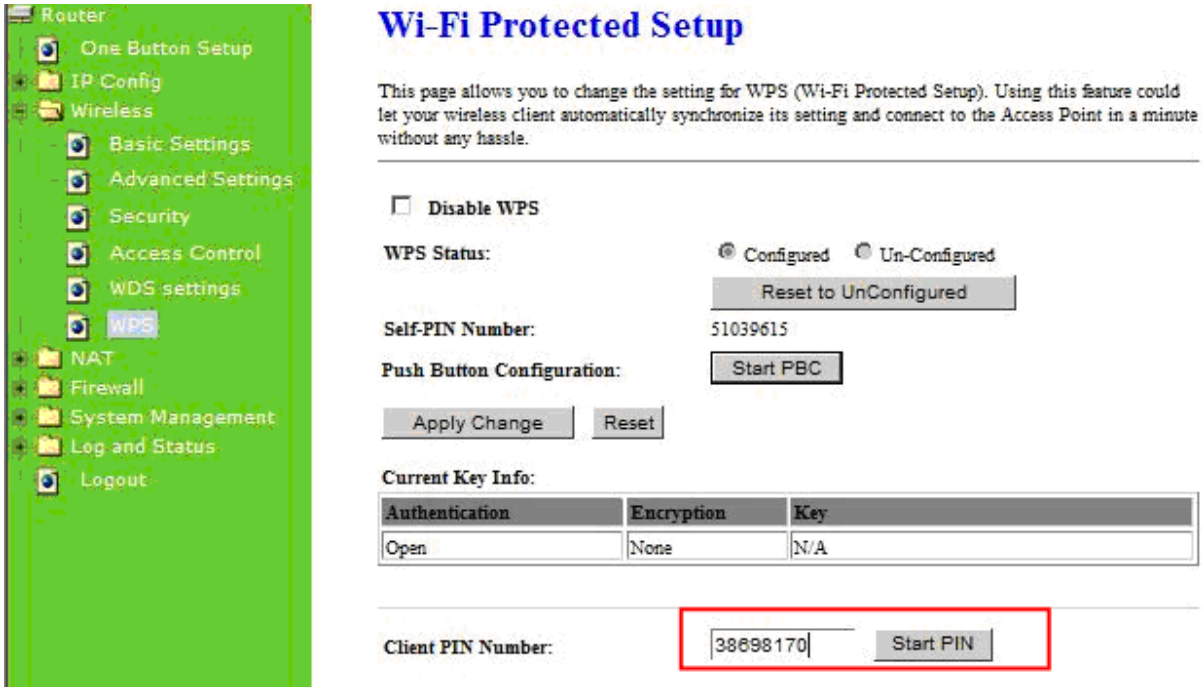
PBC model, in which the user simply has to push a button, either an actual or a virtual one, on both WPS devices to connect.

Please follow instructions below to enable the WPS function.

1. Setup Wireless LAN with WPS PIN:

   (1) Get the WPS PIN number from wireless card and write it down.

   (2) Fill in the PIN number from the wireless card in Client PIN Number field, and then click “Start PIN”.



   (3) Click PIN from Adapter Utility to complete the WPS process with the wireless router.

2. Start PBC:

(1) Press the WPS button from MB-1132 and wait for Wireless/WPS LED light changed into red.

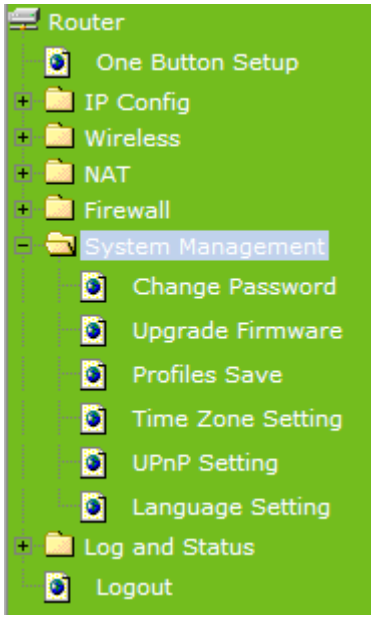
(2) Press the WPS button from the adapter until the setup window shows up.

(3) Open a web browser to check the internet connection.

Please also refer to section 4.1.1 WPS setup for more details.

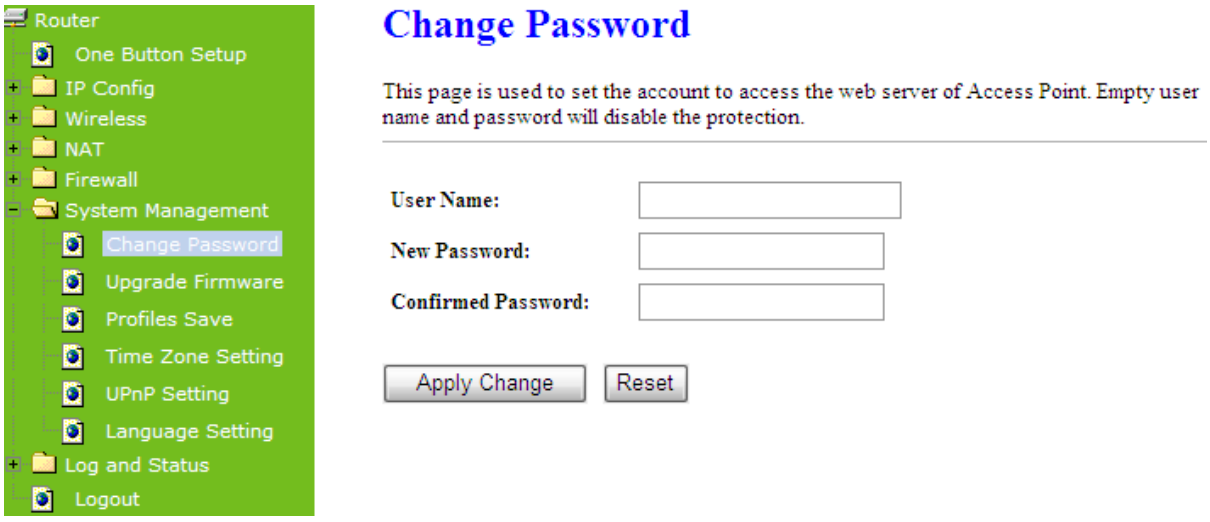
7.4 System Management

This section including **Change Password, Upgrade Firmware, Profiles Save, Time Zone Setting, UPnP Setting**, and **Language Setting**. It is easy and helpful for users making more detailed settings.



7.4.1 Change Password

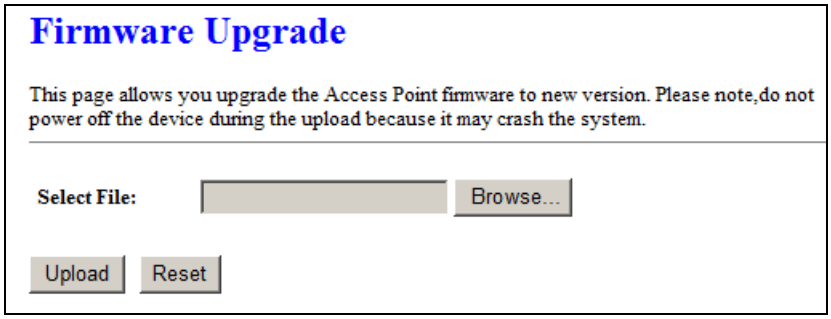
Users can set or change user name and password used for accessing the web management interface in this section.



Click on Apply Changes to save the setting data. Or you may click on Reset to clear all the input data.

7.4.2 Upgrade Firmware

This function can upgrade the firmware of the router. There is certain risk while doing firmware upgrading. Firmware upgrade is not recommended unless the significant faulty is found and published on official website. If you feel the router has unusual behaviors and is not caused by the ISP and environment. You can check the website http://www.sapido.com.tw/ to see if there is any later version of firmware. Download the firmware to your computer, click Browser and point to the new firmware file. Click Upload to upgrade the firmware. You can't make any move unless the machine reboot completely.



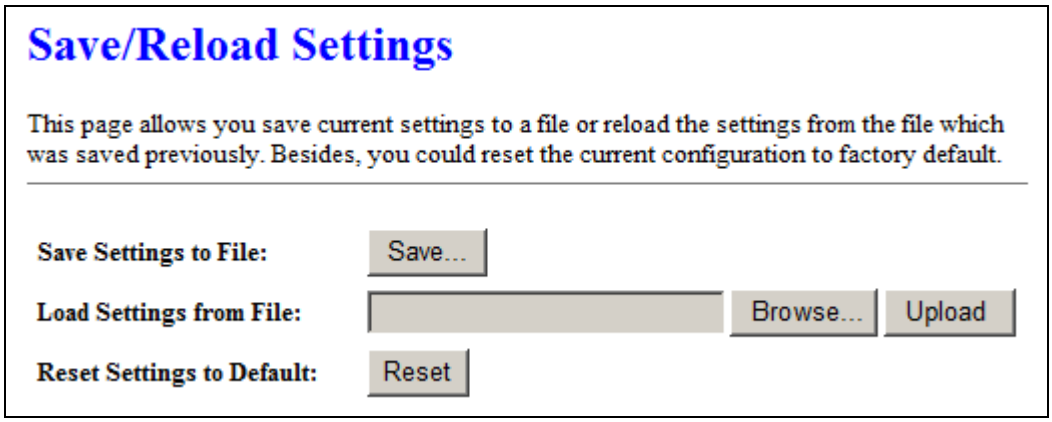
Note: 1. To prevent that firmware upgrading is interrupted by other wireless signals and causes failure. We recommend users to use wired connection during upgrading.
2. The firmware upgrade will not remove your previous settings.

- **Reset button:**

On the front of this router, there is a reset button. If you cannot login the administrator page by forgetting your password; or the router has problem you can't solve. You can push the reset button for 5 seconds with a stick. The router will reboot and all settings will be restored to factory default settings. If the problem still exists, you can visit our web site to see if there is any firmware for download to solve the problem.

7.4.3 Profile Save

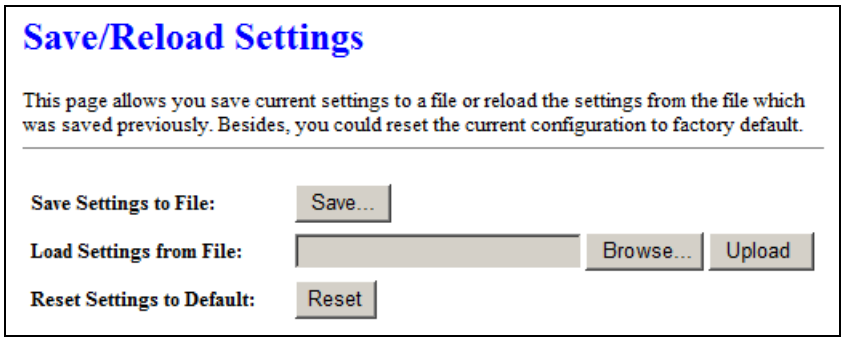
Users can create a backup file that contains current router settings. This backup file can be used to restore router settings. This is especially useful in the event you need to reset the router to its default settings.



Item	Description
Save	Save to computer
Upload	Upload the file from PC to router
Reset	Reset to default

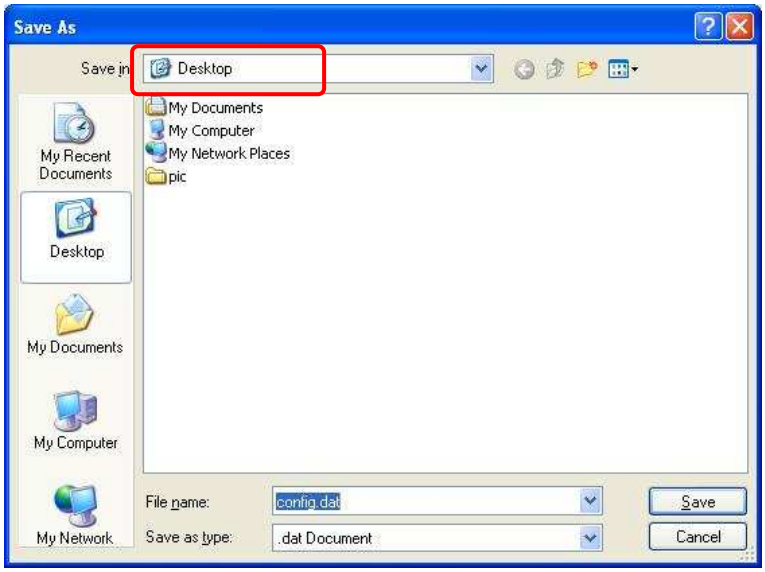
1. Save Configuration

(1) Click Save



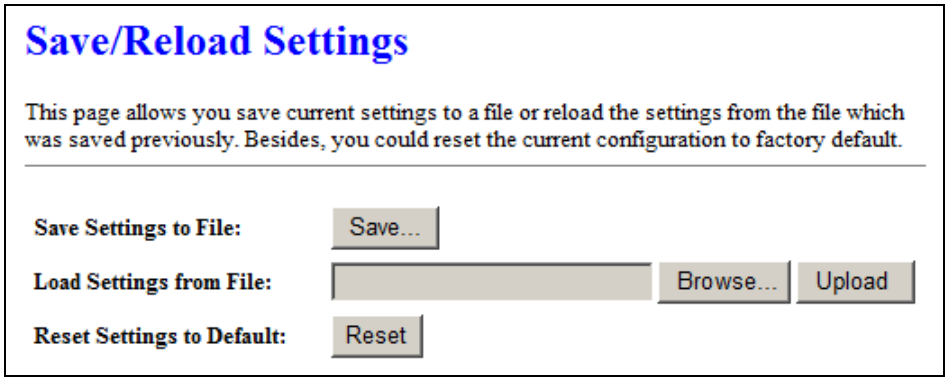
(2) Please click “Save” to save the configuration to your computer.

(3) Select the location which you want to save file, then click Save.



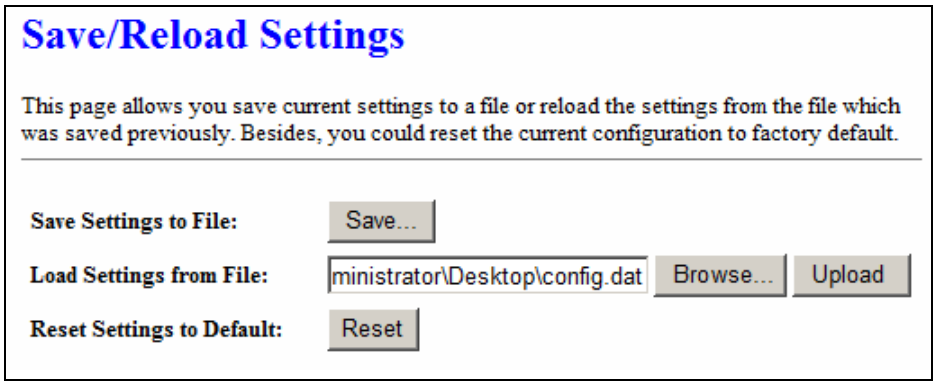
b. Load configuration file

(1) Click Browser



(2) Select configuration file then click Open

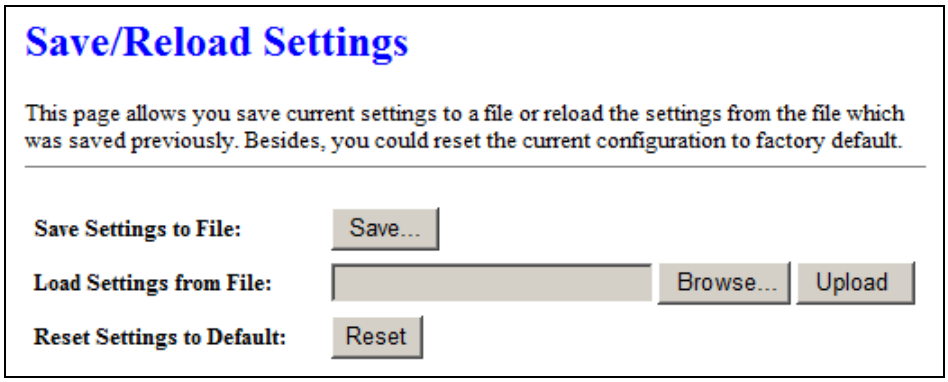
(3) Click Upload to upload configuration file to MB-1132.



(4) After 90 seconds, MB-1132 will reboot automatically.

(C) Reload factory default setting

1. Please click Reset

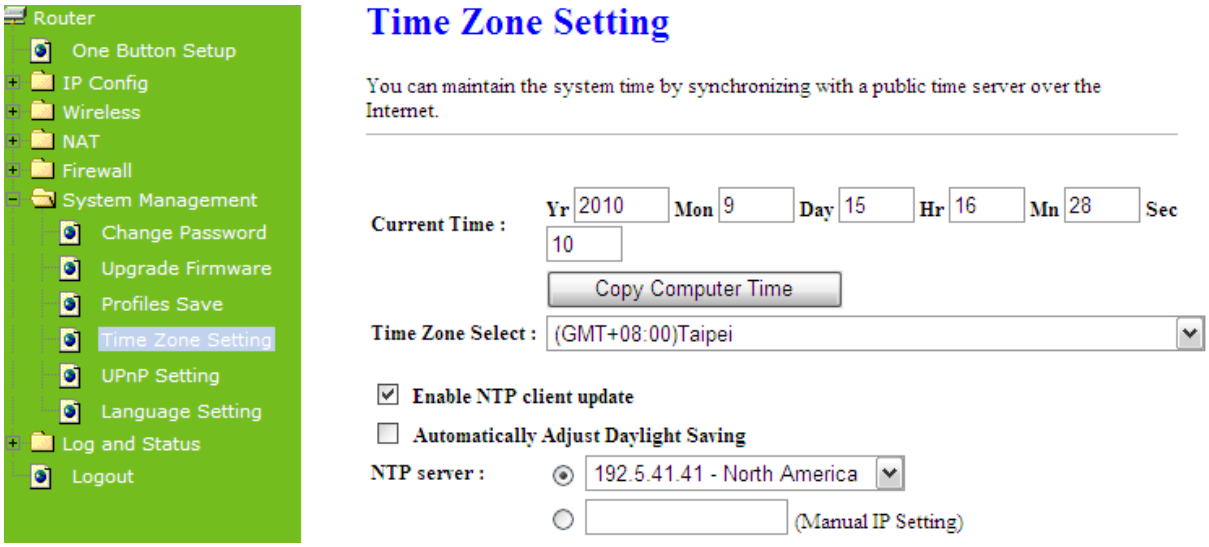


(2) Please click OK to start reload factory default setting to MB-1132.

(3) After 90 seconds, MB-1132 will reboot automatically.

7.4.4 Time Zone Setting

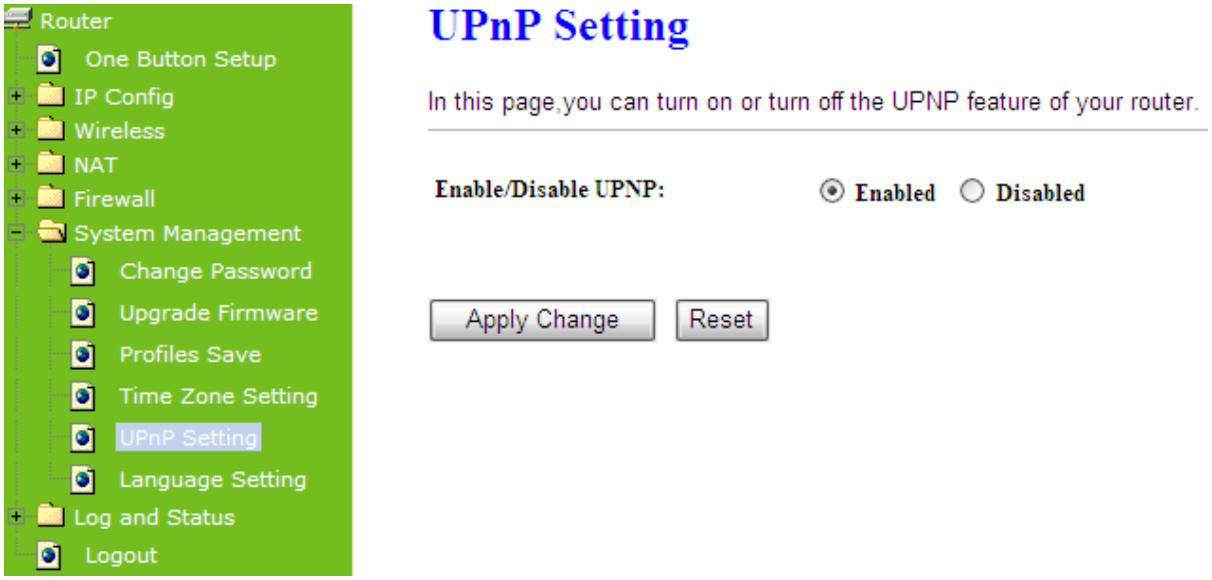
Users can synchronize the local clock on the router to an available NTP server (optional). To complete this setting, enable NTP client update and select the correct Time Zone.



Item	Description
Current Time	Users can input the time manually.
Time Zone Select	Please select the time zone.
Enable NTP client update	Please select to enable NTP client update or not.
Automatically Adjust Daylight Saving	Please select to enable Automatically Adjust Daylight Saving or not.
NTP Server	Please select the NTP server from the pull-down list, or you can enter the NTP server IP address manually.
Apply Changes & Reset & Refresh	Please click on Apply Changes to save the setting data. Or you may click on Reset to clear all the input data. Or you may click on Refresh to update the system time on the screen.

7.4.5 UPnP Setting

Universal Plug and Play (UPnP) is a standard of networking protocols promulgated by the UPnP Forum. The goals of UPnP are to allow devices to connect seamlessly and to simplify the implementation of networks in the home (data sharing, communications, and entertainment) and in corporate environments for simplified installation of computer components. MB-1132 supports UPnP function, and can cooperate with other UPnP devices. When you activate UPnP, please click My Network Places. Users will see an Internet Gateway Device icon. By click the icon, users can enter the GUI of the router. If you do not wish to use UPnP, you can disable it.



Enable/Disable UPnP: Select to enable or disable this function.

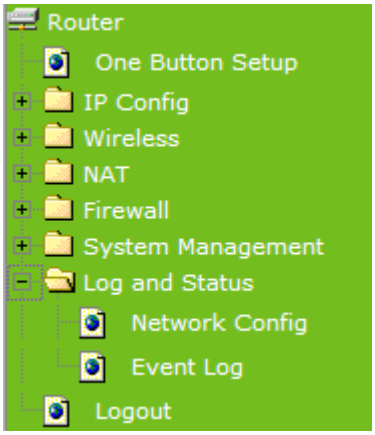
7.4.6 Language Setting

The MB-1132 provides 12 language for Web GUI. You can select the language interface from the dropdown list and by following steps.

When you see the screen message change to the selected language, the setup is completed.

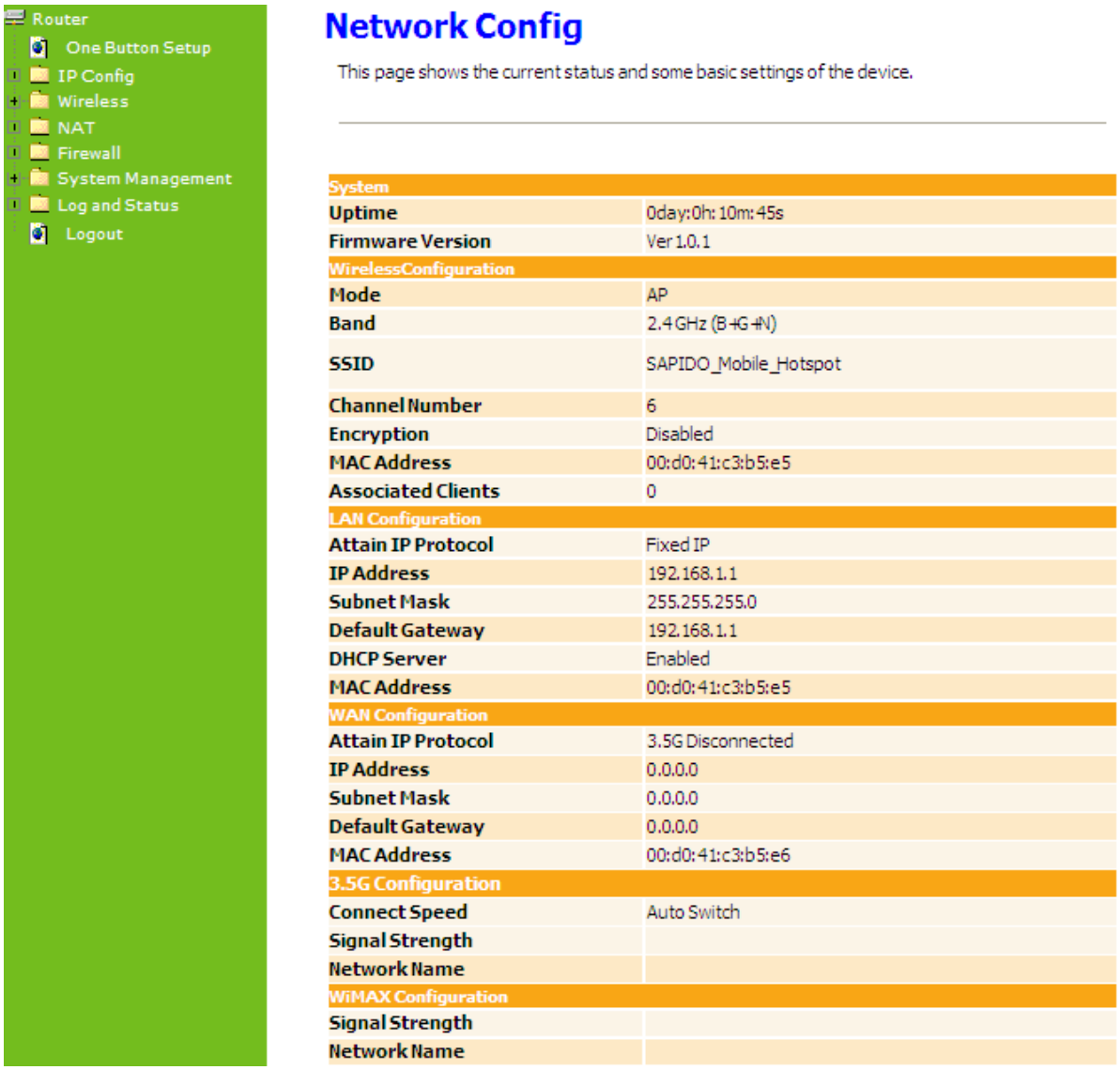
7.5 Log & Status

The category provides Network Config and Event Log status for users to know the operation status.



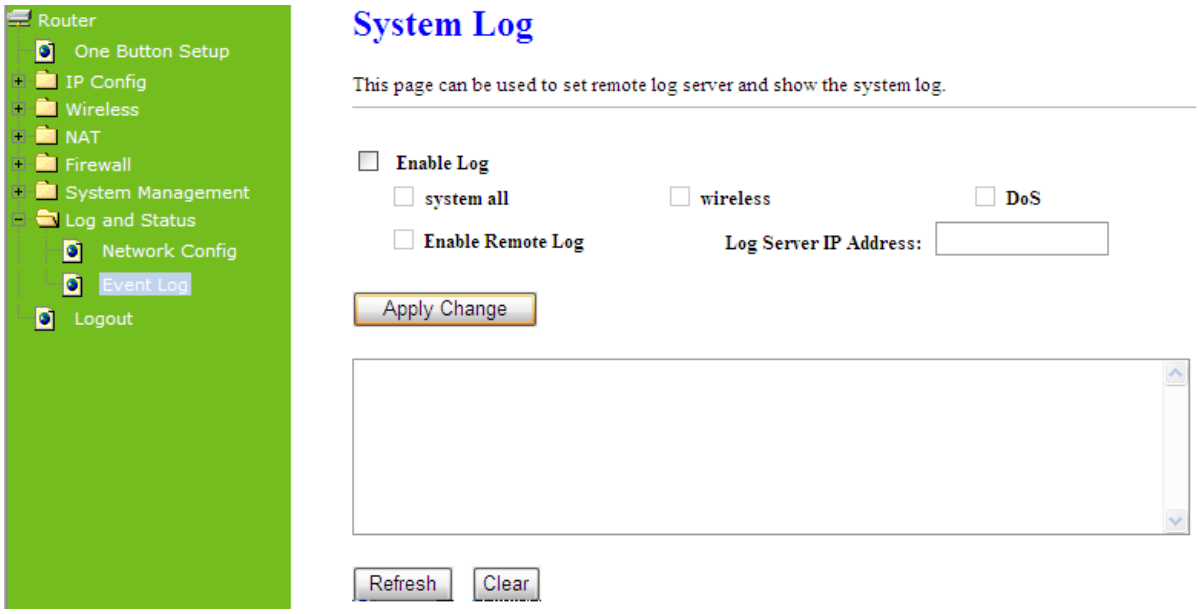
7.5.1 Network Config

Users can check the Internet status under this category, including Firmware version, Wireless setting, Connecting Time, WAN, TCP/IP …information.



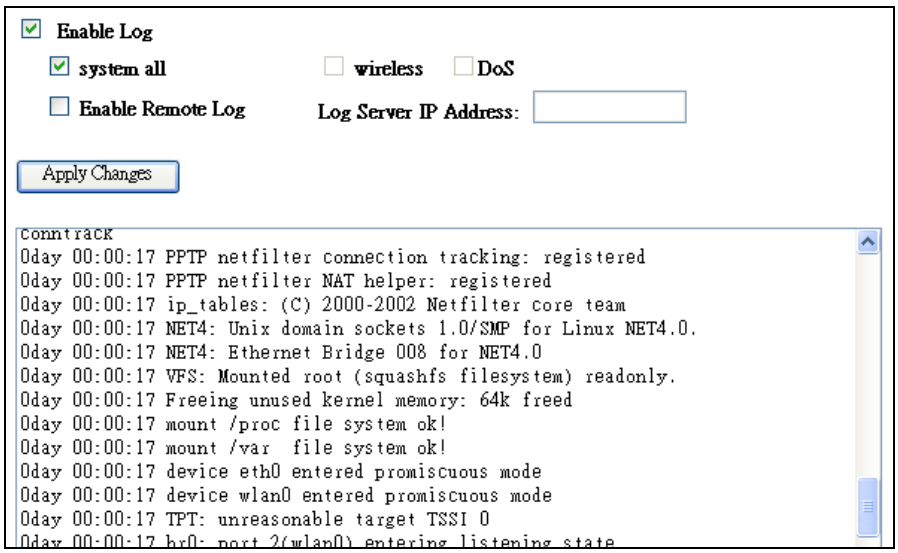
7.5.2 Event Log

You may enable the event log feature here.



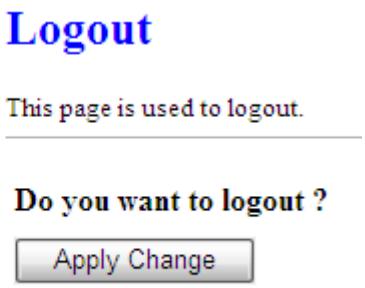
Item	Description
Enable Log	You may choose to enable Event Log or not.
System all, Wireless, & DoS	Please select the event you want to record.
Enable Remote Log	You may choose to enable the remote event log or not.
Log Server IP Address	Please input the log server IP Address.
Apply Changes & Refresh & Clear	Click on Apply Changes to save the setting data. Click on Refresh to renew the system time, or on Clear to clear all the record.

* The following figure is an example when users click Apply Changes to record the event log.



7.6 Logout

This function logs out the user. Click on Apply Change to logout.



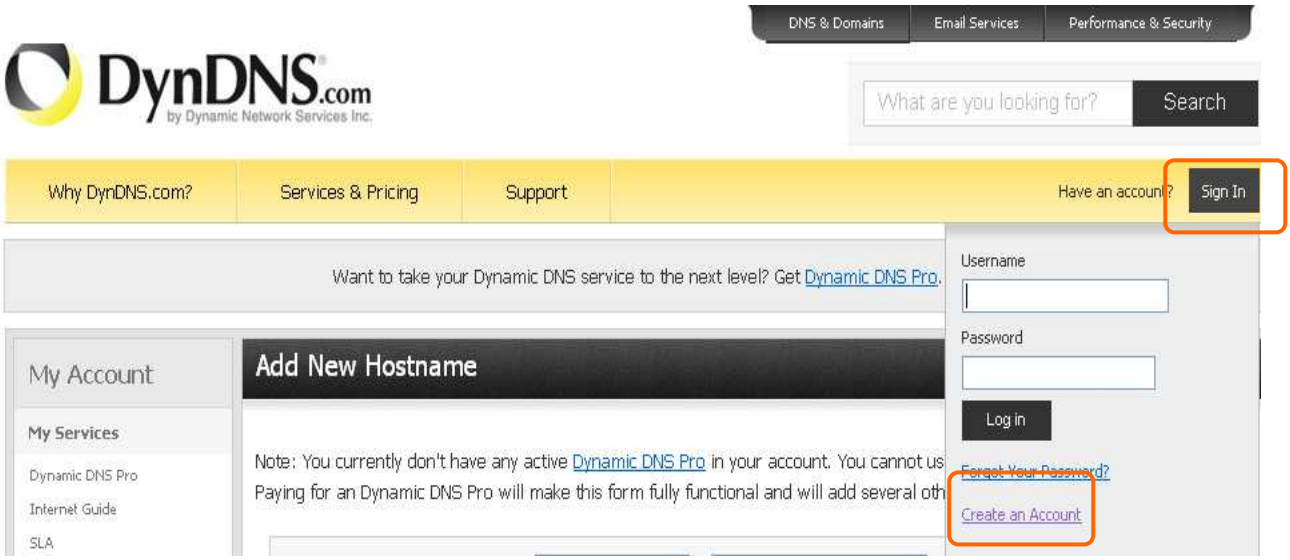
Chapter 8 DDNS Service Application

DDNS is a service changes the dynamic IP to the static IP. The settings of DDNS can solve the problem of being given the different IP by router every time. After setting the Router, your host name would correspond to your dynamic IP. Moreover, via the host name application, it could be easier for you to use FTP, Webcam and Printer remotely.

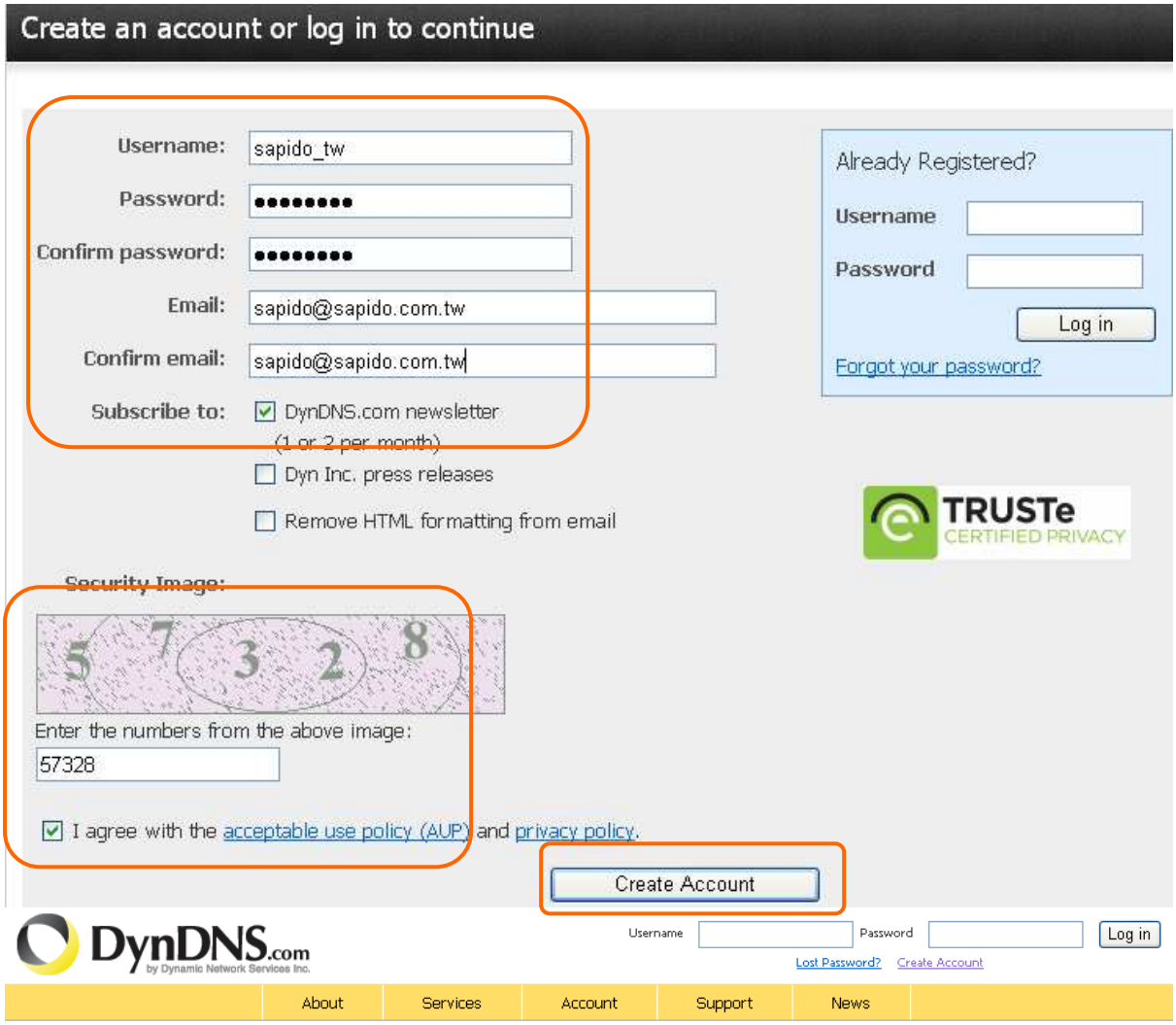
Dynamic DNS allows you to make an assumed name as a dynamic IP address to a static host name. Please configure the dynamic DNS below. Please select **Dynamic DNS** under the **IP Config** folder, and follow the instructions below to enter the **Dynamic DNS** page to configure the settings you want.

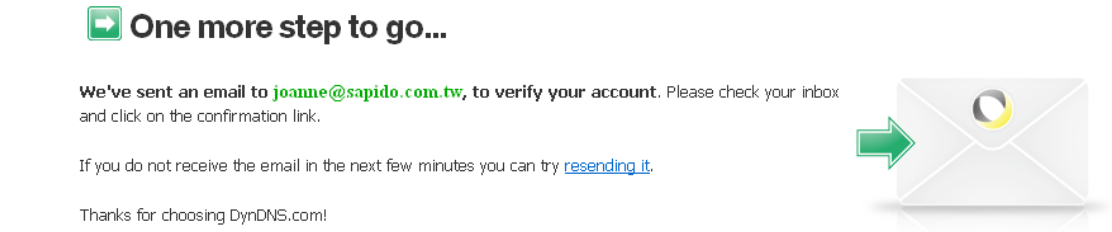
If you don't have a DDNS account, please follow the steps to complete your DDNS with Dynamic IP settings.

Step 1. First access the Internet and fill http://www.dyndns.com/ into the address field of your web browser, then click **Create Account**.



Step 2. Fill in the form as required, and then click on **Create Account** button.





Step 3. When you got this account created message, close it, and check your mailbox. You would get a mail from DynDNS website.

Step 4. Click on the indicated address within your mail to confirm.

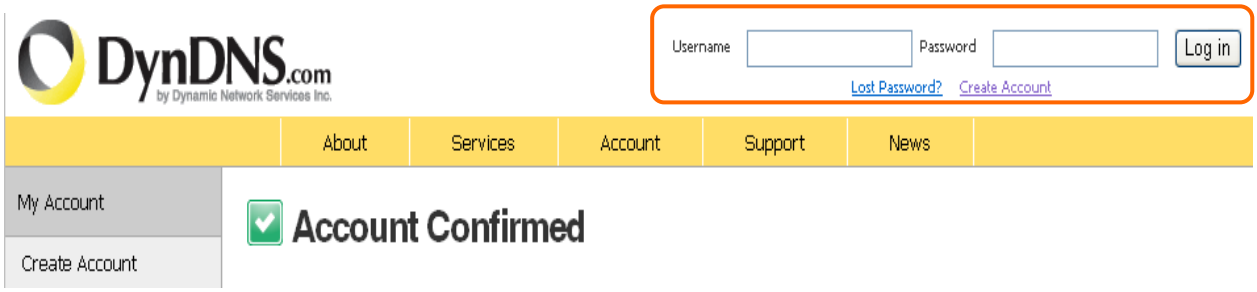
Your DynDNS.com Account ' sapido ' has been created. You need to visit the confirmation address below within 48 hours to complete the account creation process:

https://www.dyndns.com/account/confirm/BDJZJYlWzdYnrQBVEP1bcQ

Our basic service offerings are free, but they are supported by our paid services. See http://www.dyndns.com/services/ for a full listing of all of our available services.

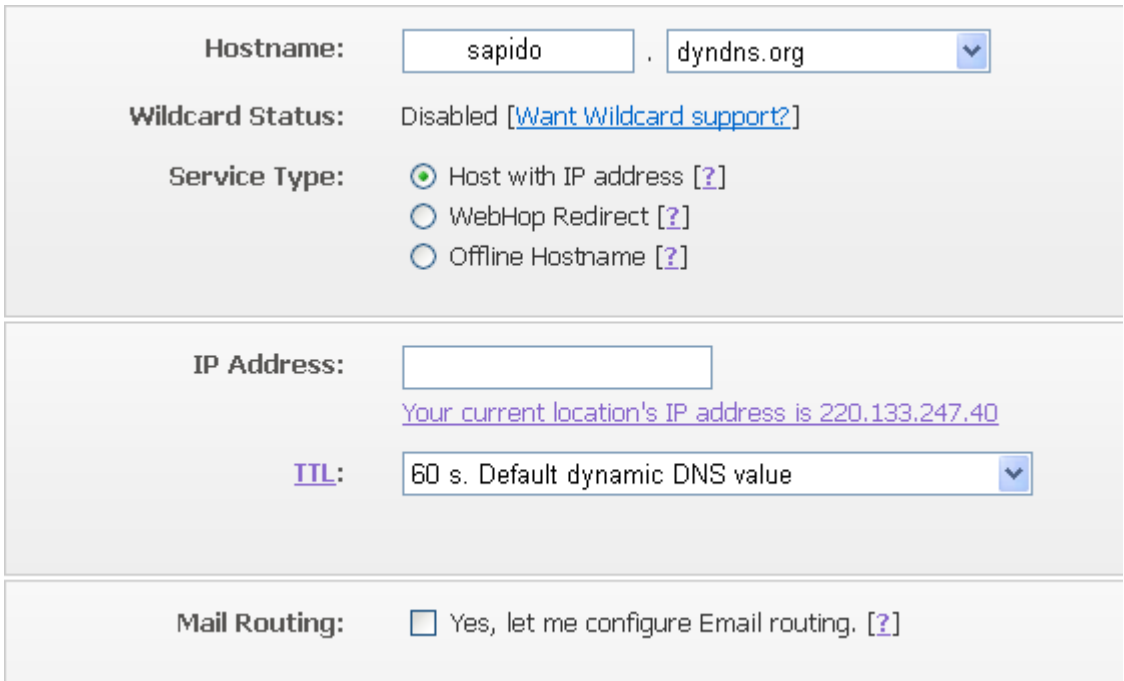
If you did not sign up for this account, this will be the only communication you will receive. All non-confirmed accounts are automatically deleted after 48 hours, and no addresses are kept on file. We apologize for any inconvenience this correspondence may have caused, and we assure you that it was only sent at the request of someone visiting our site requesting an account.

Step 5. Click on **login.**

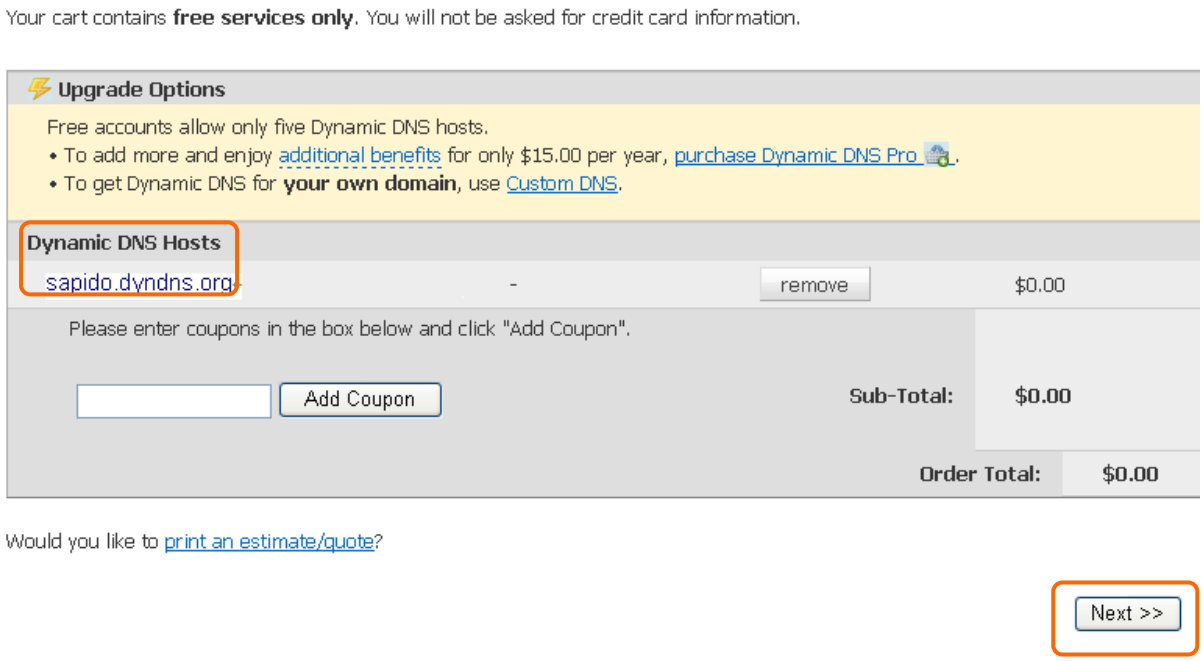


Step 6. Click **Add New Hostname**.

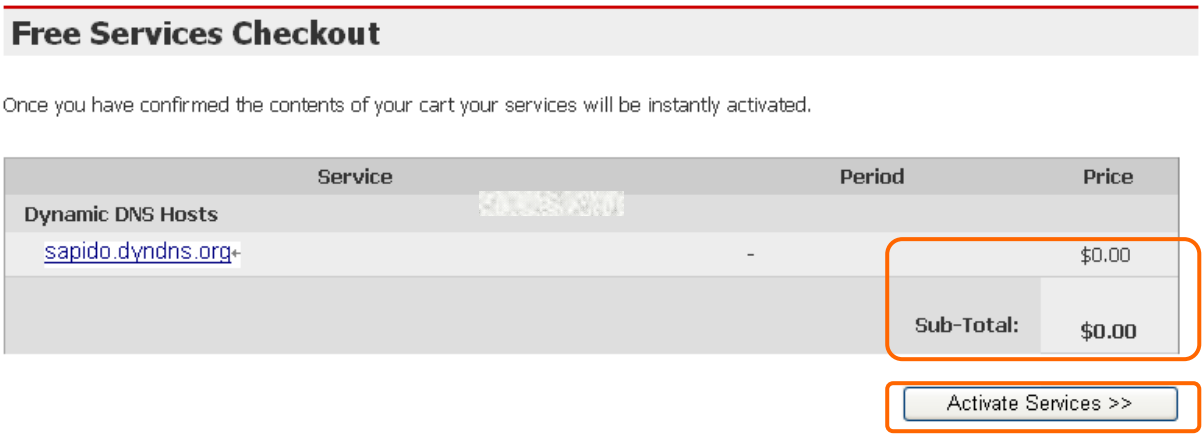
Step 7. Put in your favorite hostname and service type, and then click **Create Host** after finished.



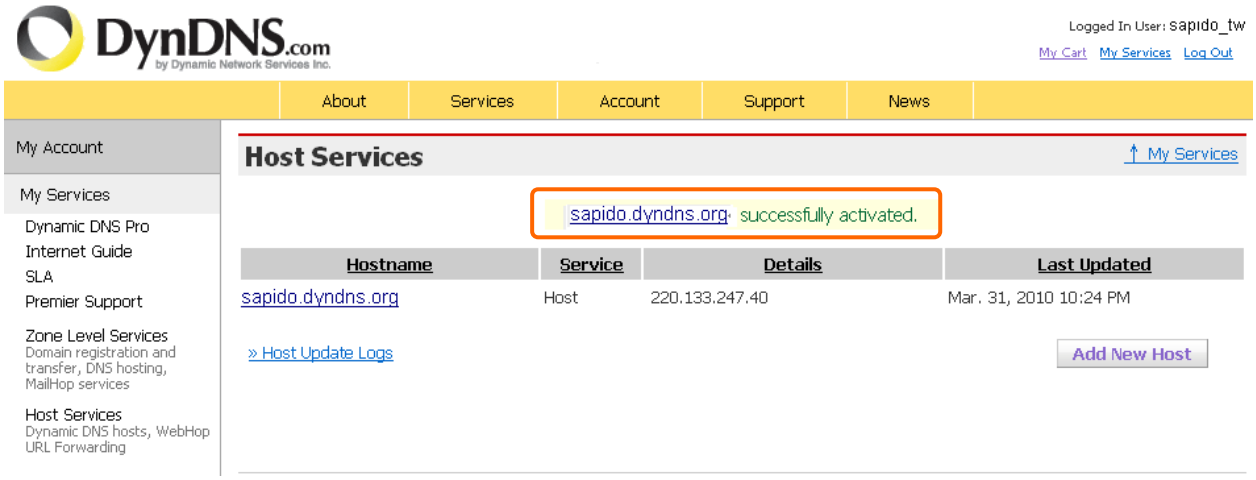
Step 8. Your hostname has been created when you see the following page.



Step 9. Click "**Activate Service**"



Step 10. Finish



Chapter 9 Q & A

9.1 Installation

1. Q: Where is the xDSL Router installed on the network?

A: In a typical environment, the Router is installed between the xDSL line and the LAN. Plug the xDSL Router into the xDSL line on the wall and Ethernet port on the Hub (switch or computer).

2. Q: Why does the throughput seem slow?

A: To achieve maximum throughput, verify that your cable doesn't exceed 100 meter. If you have to do so, we advise you to purchase a bridge to place it in the middle of the route in order to keep the quality of transmitting signal. Out of this condition you would better test something else.

- Verify network traffic does not exceed 37% of bandwidth.
- Check to see that the network does not exceed 10 broadcast messages per second.
- Verify network topology and configuration.

9.2 LED

1. Why doesn't MB-1132 power up?

A: Check if the output voltage is suitable, or check if the power supply is out of order.

2. The Internet browser still cannot find or connect to MB-1132 after verifying the IP address and LAN cable, the changes cannot be made, or password is lost.

A: In case MB-1132 is inaccessible; you can try to restore its factory default settings. Please press the "Reset" button and keep it pressed for over 7 seconds and the light of STATUS will vanish. The LEDs will flash again when reset is successful.

3. Why does MB-1132 shut down unexpectedly?

A: Re-plug your power adapter. Then, check the STATUS indicator; if it is off, the internal flash memory is damaged. For more help, please contact with your provider.

9.3 IP Address

1. Q: What is the default IP address of the router for LAN port?

A: The default IP address is 192.168.1.1 with subnet mask 255.255.255.0

2. Q: I don't know my WAN IP.

A: There are two ways to know.

Way 1: Check with your Internet Service Provider.

Way 2: Check the setting screen of MB-1132. Click on **Status & Log** item to select **Network Configuration** on the Main Menu. WAN IP is shown on the WAN interface.

3. How can I check whether I have static WAN IP Address?

A: Consult your ISP to confirm the information, or check Network Configuration in MB-1132's Main Menu.

4. Will the Router allow me to use my own public IPs and Domain, or do I have to use the IPs provided by the Router?

A: Yes, the Router mode allows for customization of your public IPs and Domain.

9.4 OS Setting

1. Why can't my computer work online after connecting to MB-1132?

A: It's possible that your Internet protocol (TCP/IP) was set to use the following IP address. Please do as the following steps. (Windows 2000 & XP) **Start**＞**Settings**＞ **Network and Dial-up Connections**＞double click on **Internet Protocol(TCP/IP)**＞ select **obtain IP address automatically**＞ Click on **OK** button. Then, open Internet browser for testing. If you still can't go online, please test something else below.

- Verify network configuration by ensuring that there are no duplicate IP addresses.
- Power down the device in question and ping the assigned IP address of the device. Ensure no other device responds to that address.
- Check that the cables and connectors or use another LAN cable.

2. Q: Why can't I connect to the router's configuration utility?

A: Possible Solution 1: Make sure that your Ethernet connect properly and securely. Make sure that you've plugged in the power cord.

Possible Solution 2: Make sure that your PC is using an IP address within the range of 192.168.1.2 to 192.168.1.254. Make sure that the address of the subnet mask is 255.255.255.0. If necessary, the Default Gateway data should be at 192.168.1.1. To verify these settings, perform the following steps:

Windows 2000, or XP Users:

1. Click on Windows **Start** > click on **Run** > input **cmd** > click on **OK** button.
2. At the DOS prompt, type ipconfig/all.
3. Check the IP Address, Subnet Mask, Default Gateway data. Is this data correct? If the data isn't correct. Please input **ipconfig/release** > press **Enter** > input **ipconfig/renew** > press **Enter**.

Possible Solution 3: Verify the connection setting of your Web browser and verify that the HTTP Proxy feature of your Web browser is disabled. Make these

verifications so that your Web browser can read configuration pages inside your router. Launch your Web browser. **Internet Explorer Users:**

1. Click on **Tools** > **Internet Options** > **Connections tab**.
2. Select **never dial a connection**, click on **Apply** button, and then click on **OK** button.
3. Click on **Tools** and then click on **Internet Options**.
4. Click on **Connections** and then click on **LAN Settings**.
5. Make sure none of the check boxes are selected and click on **OK** button.
6. Click on OK button.

Netscape Navigator Users:

1. Click on **Edit** > **Preferences** > double-click **Advanced** in the Category window.
2. Click on **Proxies** > select **Direct connection to the Internet** > click on **OK** button.
3. Click on **Edit again** and then click on **Preferences**.
4. Under category, double-click on **Advanced** and then click on **Proxies**.
5. Select **Direct connection to the Internet** and click on **OK** button.
6. Click on **OK** button.

3. Q: Web page hangs, corrupt downloads, or nothing but junk characters is being displayed on the screen. What do I need to do?

A: Force your NIC to 10Mbps or half duplex mode, and turn off the "Auto-negotiate" feature of your NIC as a temporary measure. (Please look at the Network Control Panel, in your Ethernet Adapter's Advanced Properties tab.)

4. Q: Why can't I connect to the Web Configuration?

A: you can remove the proxy server settings in your web browser.

9.5 MB-1132 Setup

1. Q: Why does MB-1132's setup page shut down unexpectedly?

A: If one of the pages appears incompletely in MB-1132's setup pages, please click on Logout item on the Main Menu before shutting it down. Don't keep it working. Then, close Internet browser and open it again for going back to the previous page.

2. Q: Why can't my USB devices and LAN ports work properly after setting the DHCP?

A: There are two rules over here.

Rule1: After connecting USB devices, please reboot your Router.

Rule2: Before finishing the DHCP setup, please don't connect any computer to LAN ports, because the conflict of having the same IP may occur and cause some computers a lot of trouble.

※Notice: Make sure that you always click on the Apply button after configuring each setting. And in order to let other LAN ports work properly, please reboot your PC.

3. Q: I don't know how to configure DHCP.

A: DHCP is commonly used in the large local network. It allows you to manage and distribute IP addresses from 2 to 254 throughout your local network via MB-1132. Without DHCP, you would have to configure each computer separately. It's very troublesome. Please Open **Internet browser** > Input **192.168.1.1 in the website blank field** > Select **DHCP Server under** the **IP Config Menu**.

Q: How do I upgrade the firmware of MB-1132?

A: Periodically, a new Flash Code is available for MB-1132 on your product supplier's website. Ideally, you should update MB-1132's Flash Code using **Firmware Upgrade** on the **System Management** menu of MB-1132 Settings.

4. Q: My **MB-1132** cannot connect to the ISP?

A: There are three possible solutions.

1. Check the Cable/XDSL modem is power on.
2. Check the Cable/XDSL link light is on to verify a good physical connection.
3. Check the WAN port LED to verify if the Cable/XDSL modem is connected to the router:

If your ISP Login method is following, please make sure the username and password are correct or not.

If your ISP is using dynamic IP addressing (DHCP) then the DHCP protocol does not have the authentication feature. Some Cable service providers often use the following to determine user's identification.

5. Q: Why is that I can ping to outside hosts, but cannot access Internet websites?

A: Check the DNS server settings on your PC. You should get the DNS servers settings from your ISP. If your PC is running a DHCP client, remove any DNS IP address setting. As the router assign the DNS settings to the DHCP-client-enabled PC.

6. Q: MB-1132 couldn't save the setting after click on Apply button?

A: MB-1132 will start to run after the setting finished applying, but the setting isn't written into memory. Here we suggest if you want to make sure the setting would be written into memory, please reboot the device via **Rebo**ot under **System Management** directory**.**

9.6 Wireless LAN

1. Q: Why couldn’t my wireless notebook work on-line after checking?

A: Generally, Wireless networks can sometimes be very complicated to set up, particularly if you're dealing with encryption and products from different vendors. Any number of variables can keep your workstations from talking to each other. Let's go over some of more common ones.

For starters, verify that your router and your workstation are using the same SSID descriptions. SSID acts as a password when a mobile device tries to connect to the wireless network. The SSID also differentiates one WLAN from another, so all access points and all devices attempting to connect to a specific WLAN must use the same SSID. A workstation will not be permitted to connect to the network unless it can provide this unique identifier. This is similar to the function of your network's Workgroup or Domain name.

When you're experiencing conductivity problems, it is always best to keep things simple. So next you are going to do is that, please disable any WEP encryption you might have configured.

Successful implementation of encryption also includes the use of a shared key. A HEX key is the most common, but other formats are also used. This key identifies the workstation to the router as a trusted member of this network. Different manufacturers can implement this key technology in ways that might prevent them from working correctly with another vendor's products. So pay attention to detail is going to be the key to a successful installation.

Next make sure the router and the NIC are configured to use the same communications channel. There are normally 11 of them, and the default channel can also vary from vendor to vendor. You might also want to confirm that the router has DHCP services enabled and an address pool configured. If not, the NIC won't be able to pick up an IP address. I have run across a few access points that offer DHCP services but do not assign all of the needed IP information to the NIC. As a result, I was able to connect to the network, but could not browse the web. The point is, don't assume anything. Verify for yourself that all of the required settings are being received by the workstation.

Finally, you might want to keep the system you're trying to configure in the same room as the router, at least during the initial configuration, in order to minimize potential interference from concrete walls or steel beams.

2. Q: My PC can't locate the Wireless Access Point.

A: Check the following:

- Your PC is set to Infrastructure Mode. (Access Points are always in Infrastructure Mode.)
- The SSID on your PC and the Wireless Access Point are the same. Remember that the SSID is case-sensitive. So, for example "Workgroup" does NOT match "workgroup".
- Both your PC and the Wireless Access Point must have the same setting for WEP. The default setting for the Wireless Router is disabled, so your wireless station should also have WEP disabled.
- If WEP is enabled on the Wireless Router, your PC must have WEP enabled, and the key must match.
- If the Wireless Router's Wireless screen is set to Allow LAN access to selected Wireless Stations only, then each of your Wireless stations must have been selected, or access will be blocked.
- To see if radio interference is causing a problem, see if connection is possible when close to the Wireless Access Point. Remember that the connection range can be as little as 100 feet in poor environments.

3. Q: Wireless connection speed is very slow.

A: The wireless system will connect at highest possible speed, depending on the distance and the environment. To obtain the highest possible connection speed, you can experiment with following:

- Access Point location: Try adjusting the location and orientation of the Access Point.
- Wireless Channel: If interference is the problem, changing to another channel may show a marked improvement.
- Radio Interference: Other devices may be causing interference. You can experiment by switching other devices off, and see if this helps. Any "noisy" devices should be shielded or relocated.
- RF Shielding: Your environment may tend to block transmission between the wireless stations. This will mean high access speed is only possible when close to the Access Point.

4. Q: Some applications do not run properly when using the Wireless Router.

A: The Wireless Router processes the data passing through it, so it is not transparent. Use the Special Application feature to allow the use of Internet applications which do not function correctly. If this does solve the problem, you can use the DMZ function. This should work with almost every application, but:

- It is a security risk, since the firewall is disabled.
- Only one (1) PC can use this feature.

5. Q: I can't connect to the Wireless Router to configure it.

A: Check the following:

- The Wireless Router is properly installed, LAN connections are OK, and it is powered ON.
- Make sure that your PC and the Wireless Router are on the same network segment.
- If your PC is set to "Obtain an IP Address automatically" (DHCP client), restart it.
- If your PC uses a Fixed (Static) IP address, make sure that it is using an IP Address within the range 192.168.1.129 to 192.168.1.253 and thus compatible with the Wireless Router's default IP Address of 192.168.1.254. Also, the Network Mask should be set to 255.255.255.0 to match the Wireless Router. In Windows, you can check these settings by using Control Panel ~ Network to check the Properties for the TCP/IP protocol.

6. Q: The WinXP wireless interface couldn't communicate the WEP with MB-1132's wireless interface.

A: The default WEP of WinXP is **Authentication Open System - WEP**, but the WEP of MB-1132 is only for **Shared Key - WEP**, it caused both sides couldn't communicate. Please select the WEP of WinXP from Authentication Open System to **Pre-shared Key - WEP**, and then the WEP wireless interface between WinXP and MB-1132 would be communicated.

9.7 Support

1. Q: Why can't the NTFS hard disk be used with MB-1132 ?

A: MB-1132 doesn't support the NTFS hard disk. It only supports EXT3 and FAT32 file systems.

2. Q: What is the maximum number of IP addresses that the XDSL Router will support?

A: The Router will support to 253 IP addresses with NAT mode.

5. Q: Is the Router cross-platform compatible?

A: Any platform that supports Ethernet and TCP/IP is compatible with the Router.

9.8 Others

1. Q: Why can't I receive corrupted FTP downloads?

A: If you are experiencing corrupted files when you download a file with your FTP client, try using another FTP program.

2. Q: Why does the router dial out for PPPoE mode very often?

A: Normally some of game, music or anti-virus program will send out packets that trigger the router to dial out, you can close these programs. Or you can set the idle time to 0, then control to dial out manually.

3. Q: What can I do if there is already a DHCP server in LAN?

A: If there are two DHCP servers existing on the same network, it may cause conflict and generate trouble. In this situation, we suggest to disable DHCP server in router and configure your PC manually.

Chapter 10 Appendices

10.1 Operating Systems

1. Microsoft：Windows 2000, XP, Vista, Win 7 and the following related versions.
2. Apple：Mac OS X 10.4.7, Leopard and the following related versions.
3. Linux：Redhat 9, Fedora 6 & 7, Ubuntu 7.04 and the following related versions.

10.2 Browsers

1. Internet Explorer ver. 6 and 7 and the following related versions.
2. FireFox ver. 2.0.0.11 and the following related versions.3.
3. Safari ver. 3.04 and the following related versions.

10.3 Communications Regulation Information

Should any consumers need to learn more information, services and supports, please contact the supplier of your product directly.