PLANEX COMMUNICATIONS INC.

USER'S MANUAL

English Version

MZK-W300NH
Draft IEEE802.11n Wireless Broadband Router

MZK-W300NH

Draft IEEE802.11n Wireless Broadband Router

User's Manual

Foreword

Explanation of the signals

In order to let you set up and use this product correctly, please pay attention when reading or browsing the manual as you see these signals listed below.

Warning/ Danger

Users should read the explanation carefully and understand it completely, otherwise users might be in danger or even be injured.

Caution/ Be Careful

Remind users to be careful when setting up the product and to avoid damaging the product or its system programs.

Seeking for service or searching for an agent or a distributor

Thank you for purchasing products from Planex Communications Inc. If you have any operational problems while configuring or setting up the product, you may contact with our Customer Service Department or ask the agent or the distributor from which you bought the product for help. Moreover, during warranty, if you find any defect or breakdown of the product, you may bring the product, assembly, and its warranty card to our company or to where you bought the product to ask for repair.

★ Every product has different warranty period and contract; please refer to our company for further information or consult the agent or the distributor.

Planex Communications Inc.
Planex Communications Inc.
Support Phone : **+65-6338-1704** (Singapore)
+886-2-7705-6172/6173/6174 (Taiwan)
Contact Us
Tel : **+886-2-7705-6689**
Fax : **+886-2-7705-6688**
Agents & Distributors : http://www.planex.net/where/index.htm

Table of Contents

FOREWORD 3

CHAPTER1 INTRODUCTION OF MZK-W300NH 6

1. Contents of Package 8
2. Product Functions 9
3. How to Set Up MZK-W300NH 11

CHAPTER2 SETUP & CONFIGURATION 13

1. Client's Computer Setup 14
2. Web Configuration 16
3. Language 19
4. Setup Wizard 20
   - 4.1. Enter Setup Wizard 20
   - 4.2. Broadband Type & IP Address Info 21
     - 4.2.1. Static IP Address 21
     - 4.2.2. DHCP 21
     - 4.2.3. PPPoE 22
5. Status 24
   - 5.1. System 24
   - 5.2. LAN 24
   - 5.3. WAN 24
   - 5.4. Wireless LAN 25
6. Management 26
   - 6.1. Remote Management 26
   - 6.2. Administrator 27
   - 6.3. Date & Time 28
   - 6.4. Firmware Management 29
   - 6.5. Save & Load Settings 30
   - 6.6. Load Default & Reboot 32
7. LAN 34
8. WAN 35
   - 8.1. Static IP Address 35
   - 8.2. DHCP 36
   - 8.3. PPPoE 37
   - 8.4. PPPoE Unnumbered 39
   - 8.5. PPPoE Multisession 41

CHAPTER3 ADVANCED SETUP & CONFIGURATION 44

1. Advanced 45
   - 1.1. DHCP Server 45
   - 1.2. UPnP 47

1.3. Dynamic DNS 48
1.4. Static Routing 50
1.5. IPv6 Bridge 51
2. Firewall 52
2.1. Local Server 52
2.2. DMZ 53
2.3. IP Filtering 54
2.4. Firewall Settings 55
3. Wireless LAN 56
3.1. Common Settings 57
3.2. Basic Settings 58
3.3. Security 60
3.4. MAC Filtering 64
3.5. WDS 65
3.6. WPS 66
4. Log 67
4.1. System Log 67

Chapter1 Introduction of MZK-W300NH

Introduction

Thank you for purchasing **Wireless Broadband Router MZK-W300NH**. This router is a multi-function device which provides **shared broadband Internet access for all LAN users**, **4-Ports switching hub for 10/100 Base-T connections**.

MZK-W300NH has embedded with IEEE802.11b/g and 802.11N Draft 2.0 wireless communication standard. All the PCs and network devices, including PDA, mobile phone, game console and other digital appliances, with wireless functions can surf online wirelessly through MZK-W300NH wireless broadband router. Cooperate with 802.11N Draft 2.0 wireless adapter, MZK-W300NH can let data transmission rate up to 300Mbps!

MZK-W300NH incorporates many advanced features, and it was designed to provide sophisticated but easy to use functions. MZK-W300NH has a built-in Web server, thus you can access its settings through Web browsers, such as IE, Netscape, Firefox, and so on. You can set up and configure the settings easily and completely and enjoy the convenience instantly.

Special Features

- **Compatible with IEEE802.11n Draft2.0**

It is compatible with the regulation of next generation of high speed wireless LAN IEEE802.11n Draft2.0. At maximum, 300Mbps throughput can be achieved. It can also build steady connections at isolated place or blocked dead spot by using multiple antenna.

- **3dBi powerful antenna**

The 3dBi antenna increases the connection distance and provides steady connection for wireless LAN.

- **Gigabit LAN side**

The four ports at LAN side are compatible with Gigabit LAN. This can make setup of the Gigabit network easily.

- **Gigabit WAN side**

This device supports not only Gigabit LAN side but also Gigabit WAN side. If there is a Gigabit Internet connection service available, it will optimize the performance.

1. Contents of Package

After purchasing MZK-W300NH Wireless Router form a distributor or an agency, please open the package and check that all the components listed below are included. If there is any item missing or damaged, please contact with the distributor or the agency at once.

- MZK-W300NH × 1
- Quick Installation Guide × 1
- CD-ROM (User's Manual) × 1
- AC Adapter × 1
- UTP cable × 1
- Curl Plugs × 2
- Screw × 2
- Warranty Card × 1

If plug the AC adapter which includes in the product package into a socket with different voltage power supply, it will cause damage and that is not included in warranty.

2. Product Functions

Front Panel—LEDs

LEDs	Status	Meaning
AP/Router	On/Off	When switching to Router mode, the LED will be on. When switching to AP mode, the LED will be off.
Power	On/Off	When starting up MZK-W300NH, the Power LED will be on.
Status	Green/Amber	When starting up MZK-W300NH, the Status LED will be amber for a few minutes, and then turn off. If there's any software or hardware error happened, it will be on. After self test of the start-up, if the status of the router is O.K., the LED will be green.
Internet	On/Off	When the connection is established between MZK-W300NH and a modem, the WAN LED will be on. And the WAN LED will be blinking when transmitting or receiving data via WAN port.
Wireless	Blinking	The LED will be blinking steadily while the wireless reception is fine.
LAN 1~4	On/Blinking	When the connection is established between MZK-W300NH and a host, the LAN LED will be on. And the LAN LED will be blinking when transmitting or receiving data via LAN port.
Button	**Function**	**Usage**
AP/Router	Shift between two kinds of modes	Shift between AP and router modes by switching the switch.

Side Panel

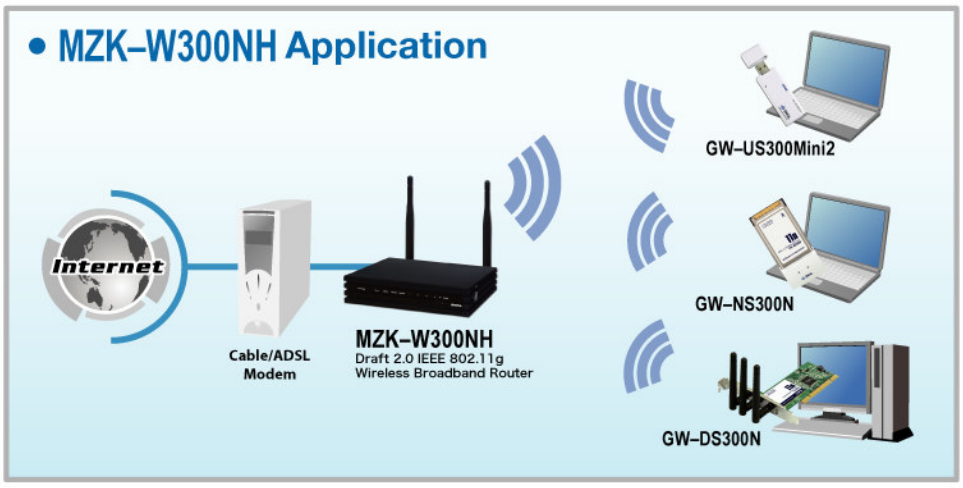
Button	Function	Usage
WPS	Build wireless connection	Press the button and build a connection between MZK-W300NH and a station (adapter).

Back Panel—Ports

Ports	Function
LAN 1~4	Use standard LAN cables (RJ45 connectors) to connect your PCs to these ports. Any LAN port can be connected with another hub, if required.
Internet	Connect a DSL or Cable Modem to the WAN port and link to the internet. If your modem came with a cable, use the supplied cable. Otherwise, use a standard LAN cable.
Power	Plug the power cord into this port and the other side of the adaptor should be plugged into the socket.

Button	Function	Usage
Reset	Reset to default	Press the button for 3-5 seconds, and then unplug the power cord, but do not release the Reset button and wait for 3 seconds before plugging the power cord back. Release the Reset button and MZK-W300NH will automatically restart and back to the default settings.

3. How to Set Up MZK-W300NH



1. Unwrap the package of MZK-W300NH Wireless Router and check if the components are complete and without missing anything.

2. **Choose an Installation Site.**

   Select a suitable place on the network to install MZK-W300NH Wireless Router. And make sure that the Wireless Router and the DSL/Cable modem are not powered on yet.

3. **Connect LAN Cables.**

   Use standard LAN cables to connect PCs to the switching hub ports on MZK-W300NH. Both 10 Base-T and 100 Base-T connections can be used simultaneously.

4. **Connect WAN Cable.**

   Connect the DSL or Cable modem to the WAN port on MZK-W300NH.

5. **Power On.**

   Power the DSL or Cable modem on. At last, connect the adapter with MZK-W300NH and plug the other side of the power cord into the power socket to power on it. While detecting, the **Power** LED and **Status** LED will be on, and **LAN** LEDs will be blinking for a while and then the MZK-W300NH will be ready in a short time and the **Status** LED will be green.

⚠	Plug the AC Adapter which comes with MZK-W300NH in a different voltage power supply will cause damage on MZK-W300NH, and it is not included in warranty.

System Requirements

- Windows, Macintosh, or Linux-based Operating System with an installed Ethernet adapter
- Network cables. Use standard 10/100/1000 BaseT network (UTP) cables with RJ45 connectors.
- TCP/IP protocol must be installed on all PCs.
- For Internet Access, an Internet Access account with an ISP, and either of a DSL or Cable modem (for WAN port usage)

Chapter2 Setup & Configuration

1. Client's Computer Setup

The computers on your LAN need to be set up to cooperate with MZK-W300NH Wireless Router. Please make sure that your operating system already enabled your interface card on the host and connected to one of the LAN ports on MZK-W300NH through Cat.5 cable. Be sure that LEDs on MZK-W300NH are already on and the LED corresponds with the port which you connected. If you switch on MZK-W300NH for the first time, owing to the default status, it will automatically enable the embedded DHCP server and start to distribute IP to your host. In addition, the default IP address of MZK-W300NH is "**192.168.1.1**." If your operating system is Windows 98/2000/XP, you may be able to use command of "**ipconfig**" to inquire whether you have the correct IP address or not. If you are using Linux/Unix-Like system, you can use "**ifconfig**" to check your NIC (Network Interface Card) address. The instructions are as follows:

- **Windows98**

1. Click "**Start→Programs→MS-DOS**" or "**Start→Run...**" and type in "**command.exe**" and then press enter.
2. "**MS-DOS**" window will appear.
3. Type "**ipconfig**" after the command of "**c:>**" and then press enter.
4. MS-DOS will appear your NIC address in the window, please take notice of the value of "**IP Address**" and "**Default Gateway**."
5. The value of "**Default Gateway**" is the IP address of MZK-W300NH.

- **Windows2000/XP**

1. Please make sure that you do have the authority to access as an "**Administrator**" or you are already one of the "System Administrators."
2. Click "**Start→Programs→Accessories→Command Prompt**" or "**Start→Run...**," and then type in "**cmd.exe**" and press enter.
3. It will appear a "**MS-DOS**" window.
4. Type "**ipconfig**" after the command of "**c:>**" and then press enter.
5. MS-DOS will appear your NIC address in the window, please take notice of the value of "**IP Address**" and "**Default Gateway**."
6. The value of "**Default Gateway**" is the IP address of MZK-W300NH.

- **Linux / Unix-Like**

1. At first please make sure that your NIC are already enabled and works properly.
2. And be sure you have "**root**" number or your already are one of the members of a "root" group.
3. Please type "**ifconfig**" of "**ifconfig -a**" after "**#**" and then press enter.
4. It will appear your present NIC address in the window, please take notice of the value of "**IP Address**" and "**Gateway**."
5. The value of "**Gateway**" is the IP address of MZK-W300NH.

If you can get "**IP Address**" and "**Gateway**," normally, it means that you may use web browser to configure MZK-W300NH. Type your destination—"http://192.168.1.1" (default IP Address of MZK-W300NH) on the Address Bar in the web browser. If you have changed the default IP Address of MZK-W300NH, please type in the new address on the address bar.

2. Web Configuration

The MZK-W300NH Wireless Router contains an HTTP server. This enables you to connect the router, and configure it by using your web browser.

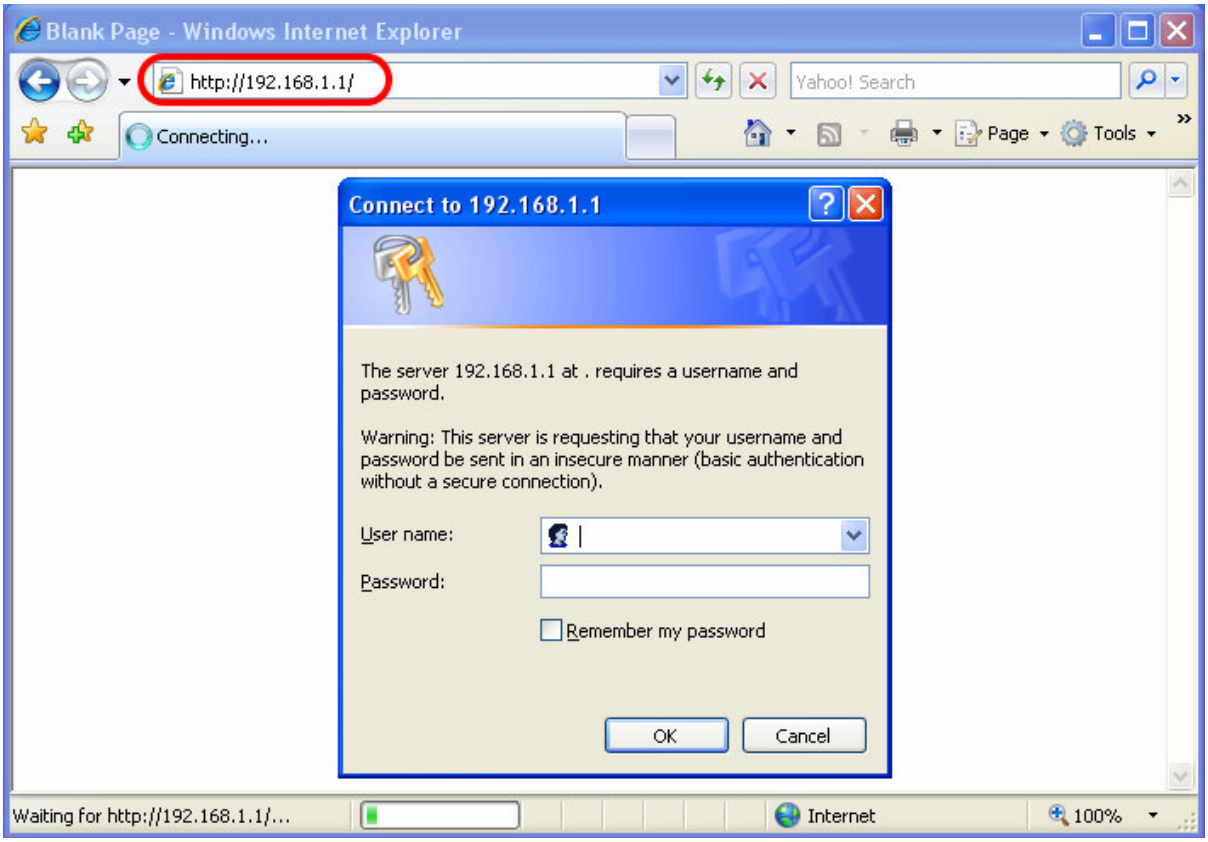
Before attempting to configure MZK-W300NH Wireless Router, please ensure that your PC can establish a physical connection to the Wireless Router. The PC and the MZK-W300NH Wireless Router must be directly connected with each other (using the LAN ports on MZK-W300NH) or on the same LAN segment. Besides, the MZK-W300NH Wireless Router must be set up and powered on.

The MZK-W300NH Wireless Router's default IP Address is "**192.168.1.1**." If the IP address has already used by another device, the other device must be turned OFF until MZK-W300NH is allocated a new IP Address.

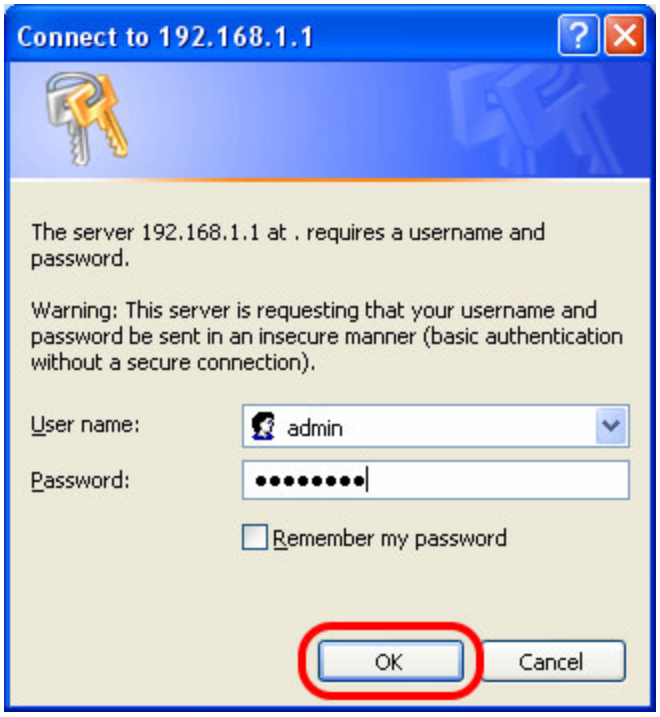
Using Web Browser

To establish a connection between your PC and the MZK-W300NH Wireless Router:

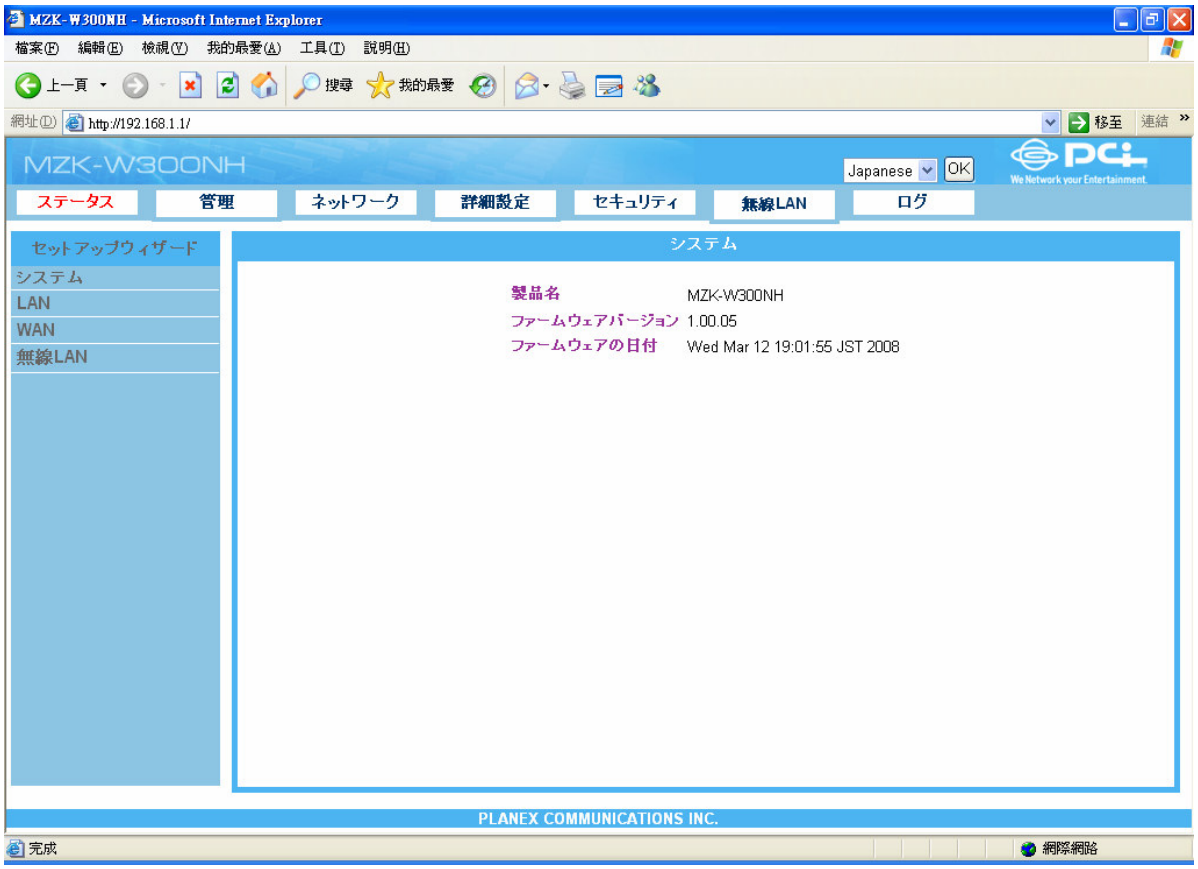
1. Start the WEB browser.
2. In the Address box, enter "http://192.168.1.1" which is the default IP Address of the MZK-W300NH Wireless Router. Press "**Enter**" on your keyboard, and the pop-up will ask you to enter the **User Name** and **Password** to get into the program.



3. Enter the default User Name "**admin**" and Password "**password**" and then click "**OK**" to enter the system. You can also put a check in the "**Remember my password**" check box, and next time you do not need to enter password to enter the system.



4. After entering the system, MZK-W300NH will show you the homepage. During configuration, you can use the tabs on the top of the page to navigate. Besides, it is necessary that, after configuring, you should click "**Apply**" to enable the settings you've made.

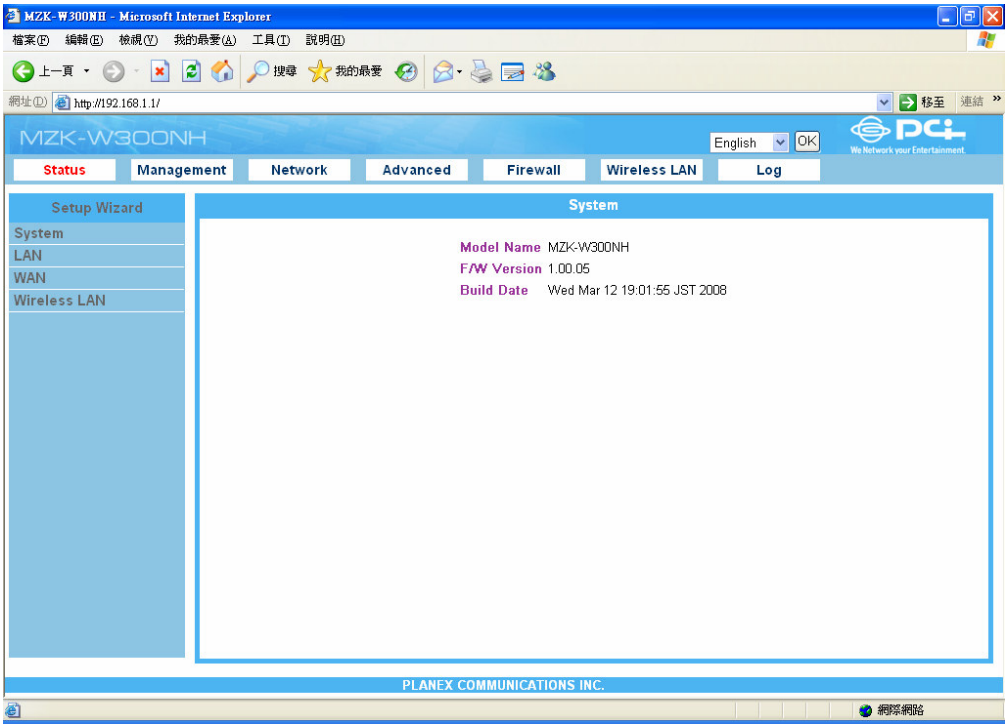


If your MZK-W300NH Wireless Router does not response, and you cannot enter the web configuration page, please follow the steps below to check if there is any problem:

1. Make sure that MZK-W300NH Wireless Router is properly installed and powered on, and LAN connection is O.K. You can test the connection by using "**Ping**" command:
   - Open MS-DOS window or click "**Start→Run...**" on the desktop to show the command prompt window.
   - Enter the command: **ping 192.168.1.1**
   - If it shows the message of "**Request time out**," the problem can be either disorder of connection, or the conflict between your PC's IP address and the router's IP address.
2. If your PC uses static IP address, the IP address must between in the range of 192.168.1.2~192.168.1.254, in order not to occupy the MZK-W300NH's default IP address "**192.168.1.1.**" In addition, the subnet mask must be "**255.255.255.0**." To know more details of your PC and Internet connection, please check the TCP/IP settings on your PC.
3. You have to make sure that your PC and MZK-W300NH are on the same segment.

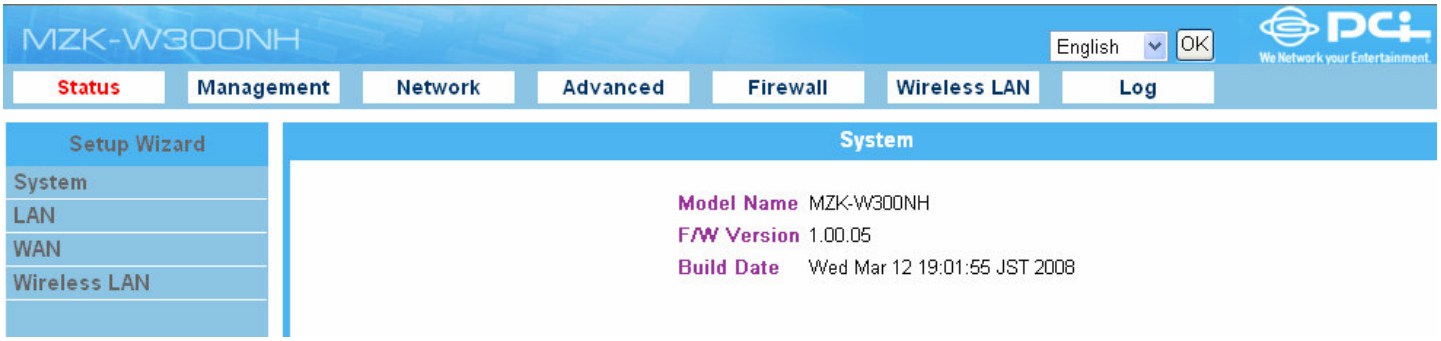
3. Language

MZK-W300NH configuration webpage supports two different languages: English and Japanese. You can select the language you want by scrolling down the list on the upper-right side of the menu. Click "**OK**" button to save and apply the changes you made.



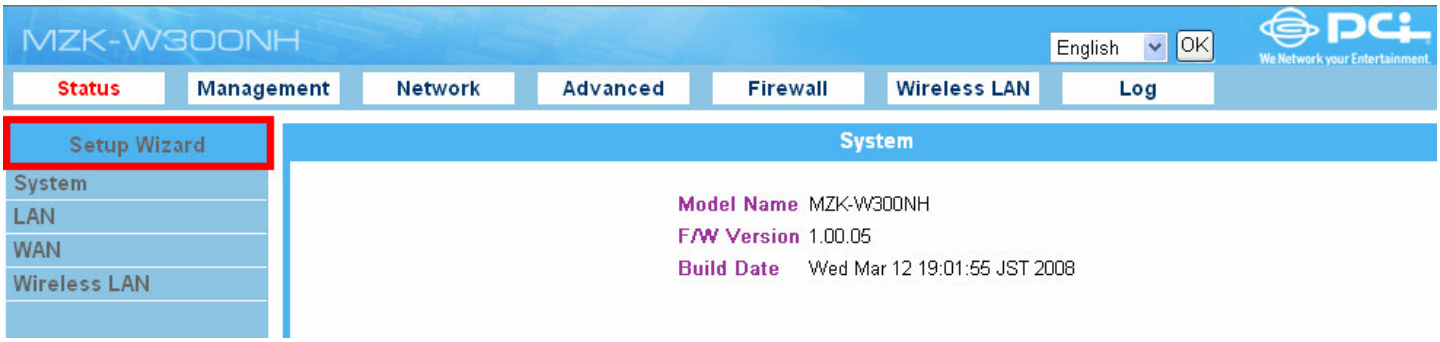
4. Setup Wizard

After you login the configuration utility, you can click "**Setup Wizard**" on the upper left of the page to start setting up MZK-W300NH. You can finish setting up the router and begin to connect Internet just through a few simple and easy steps. Please follow the instructions below to set up MZK-W300NH.



4.1. Enter Setup Wizard

The followings are the most common used connection types: **Static IP Address**, **DHCP**, and **PPPoE**. If you want to know more about the other types of WAN configurations, please refer to "**Network→LAN Setup**" configuration page.



4.2. Broadband Type & IP Address Info

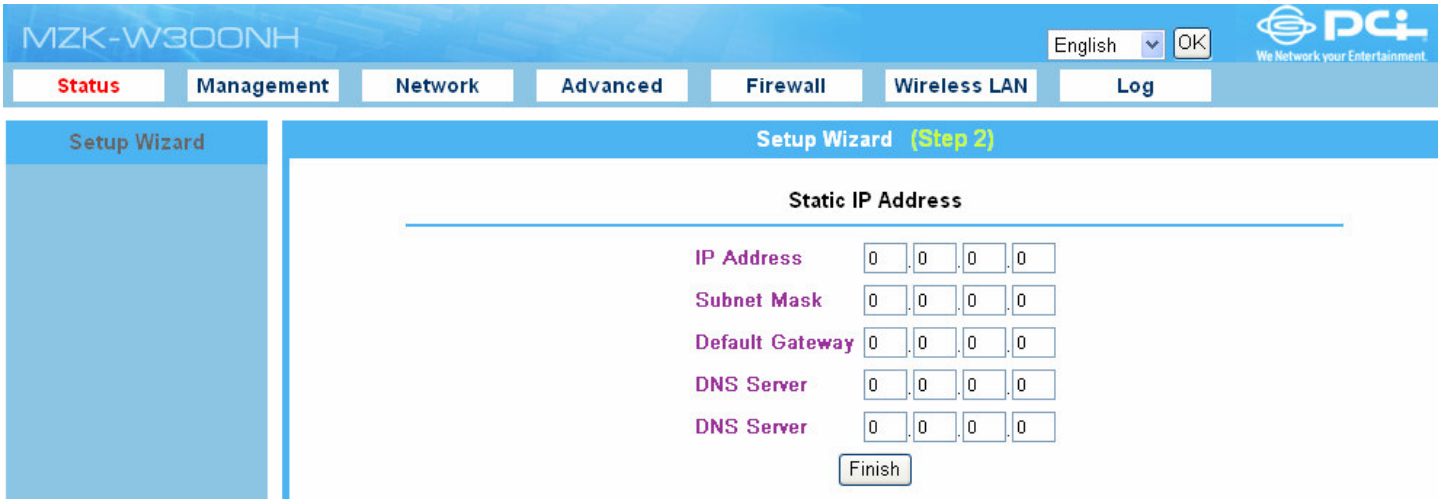
4.2.1. Static IP Address

➢ **Step 1**

If you have already had a Static IP address, you can choose this entry and use the wizard to configure. Click "**Static IP Address**" to proceed.

➢ **Step 2**

The following are the WAN settings; please configure the settings according to the real environment.



- **IP address** : Enter the IP address provided by your ISP.
- **Subnet Mask** : Enter the Subnet Mask address provided by your ISP.
- **Default Gateway** : Enter the Default Gateway address provided by your ISP.
- **DNS address** : Enter the DNS IP address provided by your ISP.
- **Finish** : After finishing setting up, you may click here.

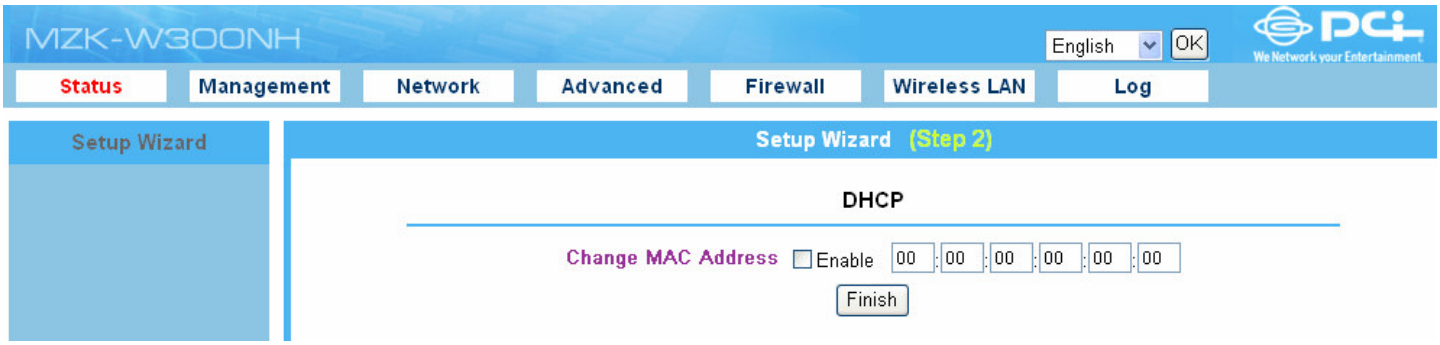
4.2.2. DHCP

➢ **Step1**

If you use cable modem, you may choose this entry and use the wizard to configure. Click "**DHCP**" to proceed.

➢ **Step2**

The following are the WAN settings; please configure the settings according to the real environment.



- **Change MAC address** : The default MAC address of MZK-W300NH is the Network Interface Card's (NIC) MAC address on the WAN side. If you were asked to use the NIC provided by the ISP, you may click "**Enable**" and enter the MAC address of NIC provided by the ISP. We do not suggest you to change the default MAC address, if your ISP does not ask you to change it.
- **Finish** : After finishing setting up, you may click here.

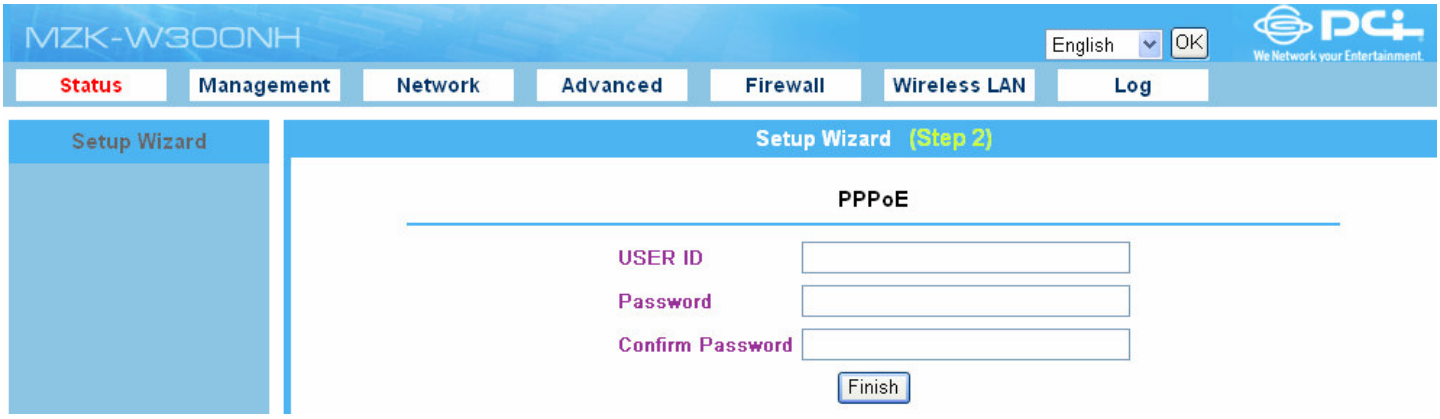
4.2.3. PPPoE

➢ **Step1**

If you use PPPoE, you may choose this entry and use the wizard to configure. Click "**PPPoE** " to proceed.

➢ **Step2**

The following are the WAN settings; please configure the settings according to the real environment.

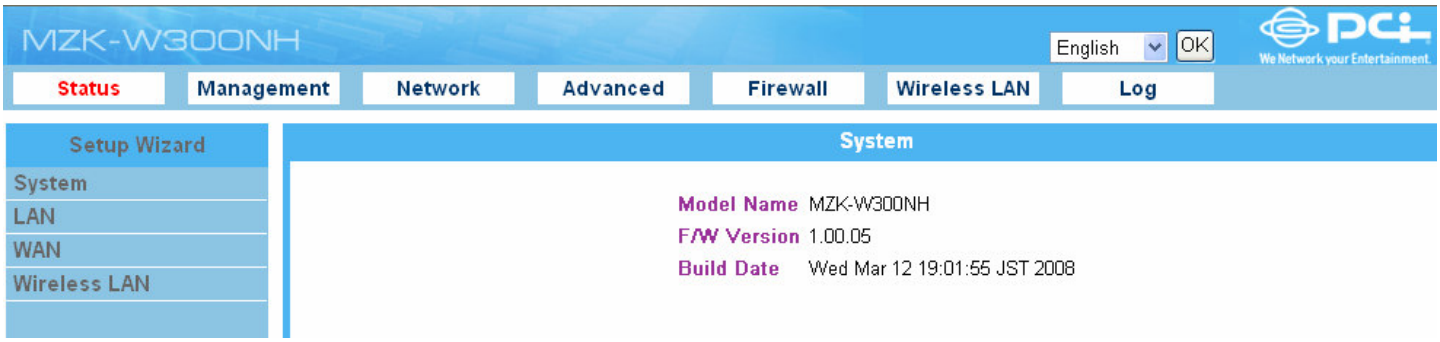


- **USER ID** : Enter the User Name provided by your ISP. (The ID must be alphanumeric characters and case sensitive.)
- **Password** : Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)
- **Confirm Password** : Enter the Password again for verification.
- **Finish** : After finishing setting up, you may click here.

5. Status

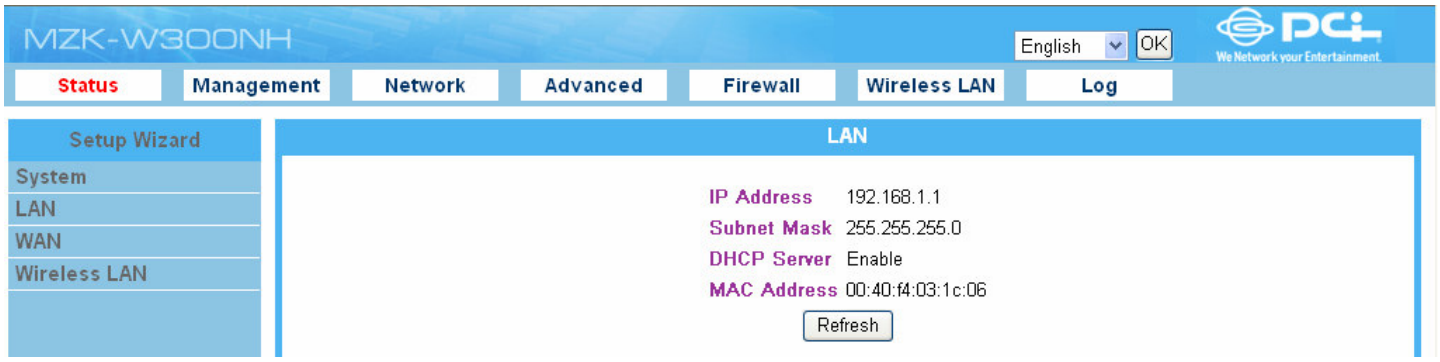
5.1. System

After entering the configuration homepage of MZK-W300NH, please click "**Status**" on the upper left corner of the page. This page shows the general current system status.



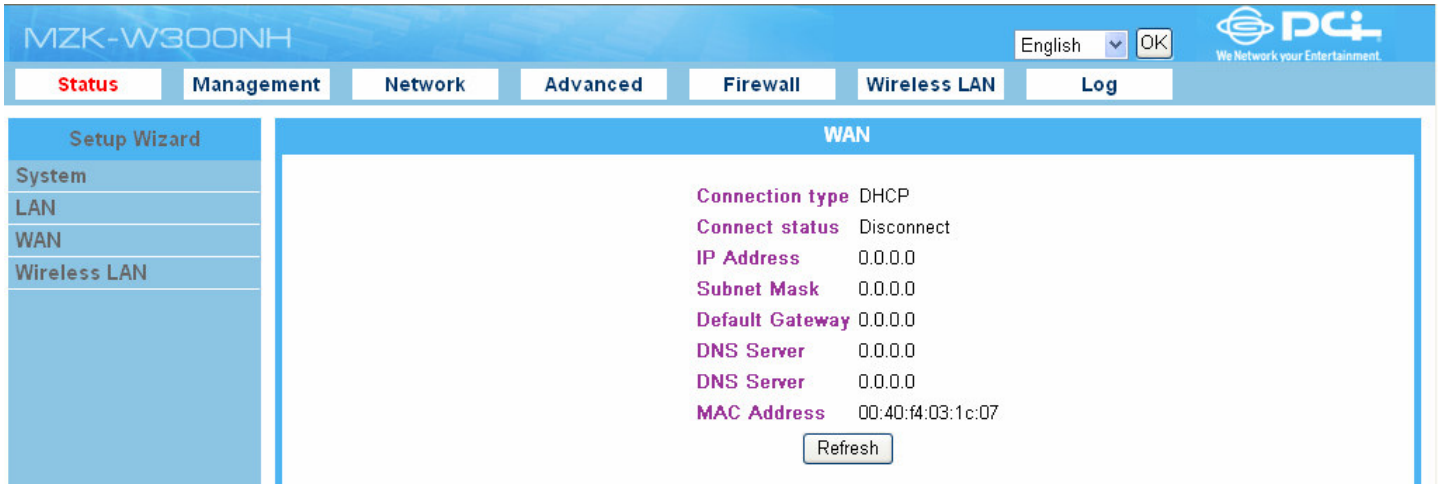
5.2. LAN

Click the link of "**LAN**" on the left side of the page, it will show you the current settings of Local Area Network.



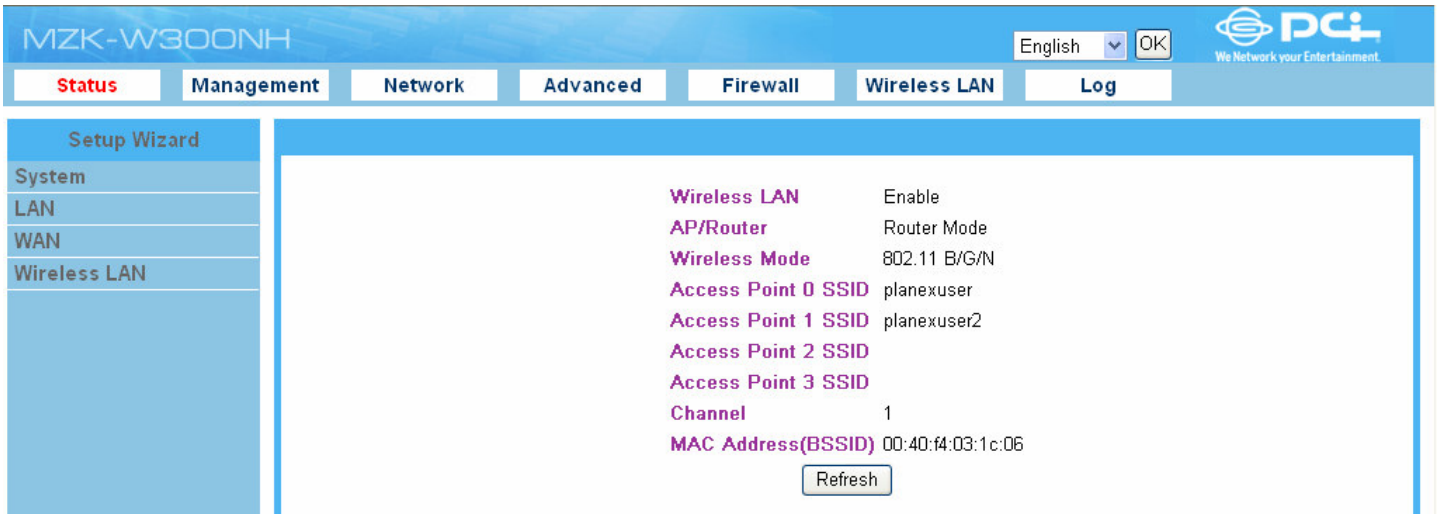
5.3. WAN

Click the link of "**WAN**" on the left side of the page to check the current Internet connection status of MZK-W300NH.



5.4. Wireless LAN

Click the link of "**Wireless LAN**" on the left side of the page to check the current WLAN settings of MZK-W300NH.



6. Management

You can configure many things through Management functions, such as

- Remote Management
- Password
- Time Zone and NTP (Network Time Protocol)
- Firmware Update
- Save & Load Settings
- Load Default & Reboot

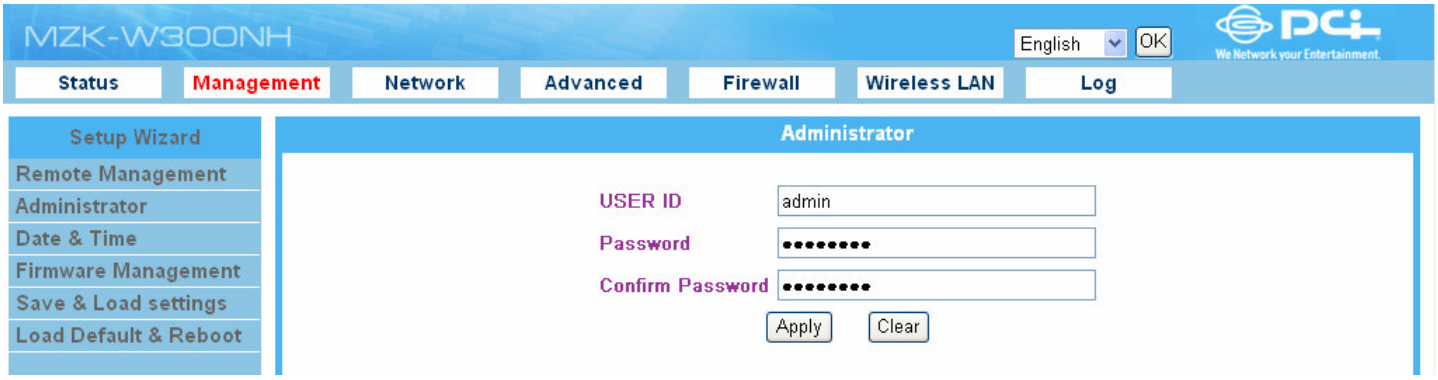
6.1. Remote Management

MZK-W300NH Wireless Router can be managed by any PC from your LAN. If the router has connected to the Internet, the administrator can also configure it via the Internet. Owing to the security, however, you should have a static IP before performing remote management.

- **Remote Management** : Click the check box to enable remote management function.
- **Management host IP** : Enter the IP address of the remote management interface.
- **Reply ping** : Ping is a common and useful tool to know the connection status of a specified remote network device, but some malicious intruder will try to fill your network bandwidth with a lot of PING request data packet, to make your internet connection become very slow, even unusable. Check this box and the router will reply all inbound PING request, and when you activate this function, not only you but all the users will be able to ping your router from Internet.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

6.2. Administrator

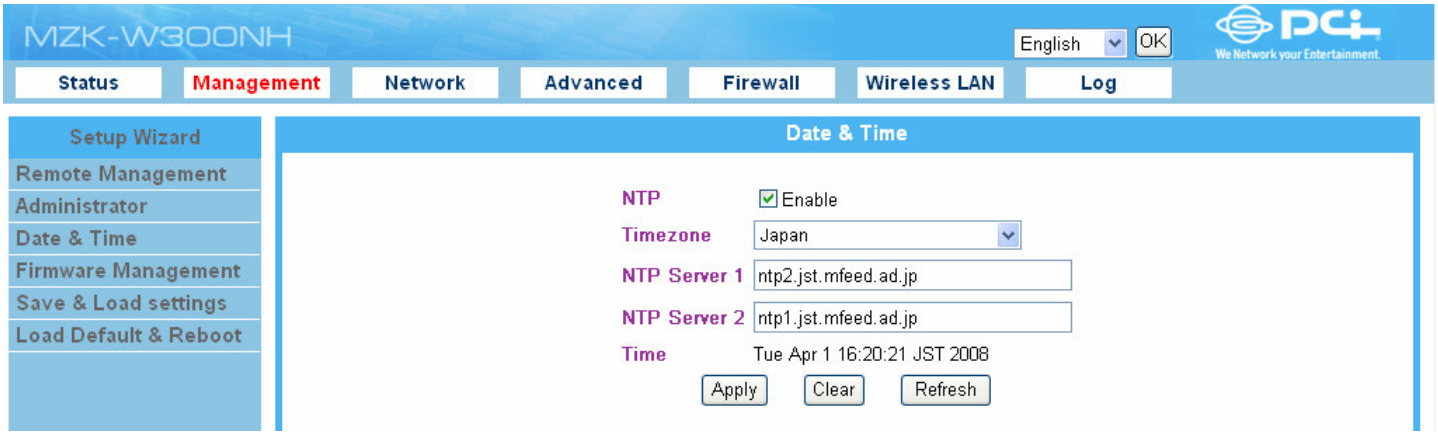
The default USER ID of MZK-W300NH Wireless Router is "**admin**" and Password is "**password**." It is recommended that you should change the default password to have better protection over the router and the LAN. You must memorize the password set by you to enter the system; otherwise, you have to restore the whole systems and then configure the settings again.



- **USER ID** : Enter the current USER ID of the administration. (It has to be alphanumeric characters and case-sensitive.)
- **Password** : Enter a new Password of the administration. (It has to be alphanumeric characters and case-sensitive.)
- **Confirmed Password** : Please enter the password again for confirmation.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

6.3. Date & Time

You can set the system date and time according to the time zone where you locate now.

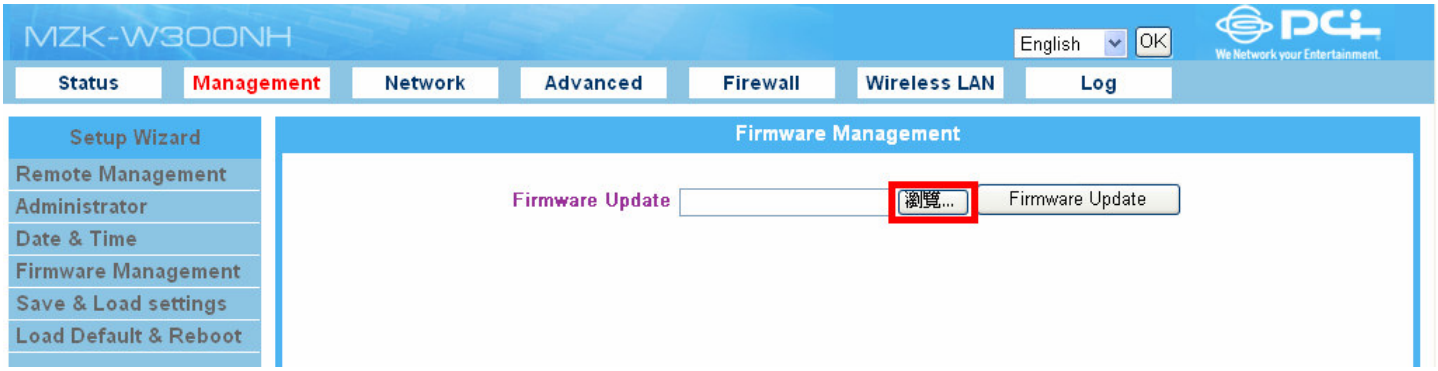


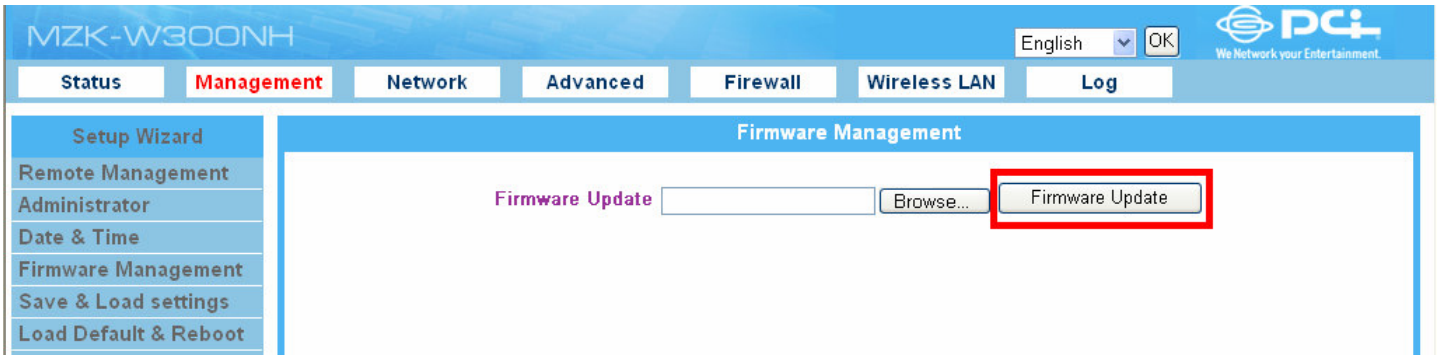
- **NTP** : Click to enable the Network Time Protocol function.
- **Timezone** : Scroll the list to choose the time zone for MZK-W300NH.
- **NTP Server 1/2** : You can enter the Internet address of an NTP(Network Time Protocol) Server for your system to synchronize with.
- **Time** : Here shows the current date and time.
- **Apply** : Click this button, the system will save the settings and synchronize with NTP Server.
- **Clear** : If there is anything wrong with the configuration, you can click "**Clear**" to configure the page again.
- **Refresh** : Click this button to update to the latest date and time.

6.4. Firmware Management

You can upgrade the firmware of MZK-W300NH via Web Browser.
First, please go to the website: http://www.planex.com.tw/support/index.htm to download the latest firmware of MZK-W300NH. Be sure that the downloaded firmware is stored in your PC's disk and then click "**Browse...**" to search for the firmware file which you just downloaded. Click "**Open**" to use the firmware and then go back to the configuration page, and click "**Firmware Update**" to start upgrading immediately. It is recommended that you should save the settings before upgrading the firmware.

⚠	It takes about 2~3 minutes to upgrade the firmware. When upgrading, please do not turn off the power of MZK-W300NH. After finishing upgrading, MZK-W300NH will restart automatically.



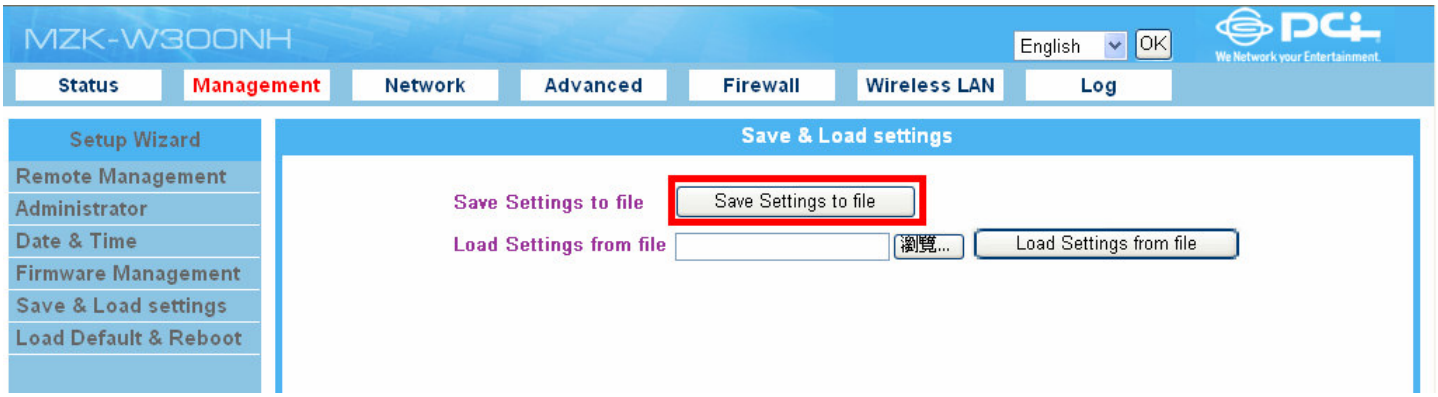


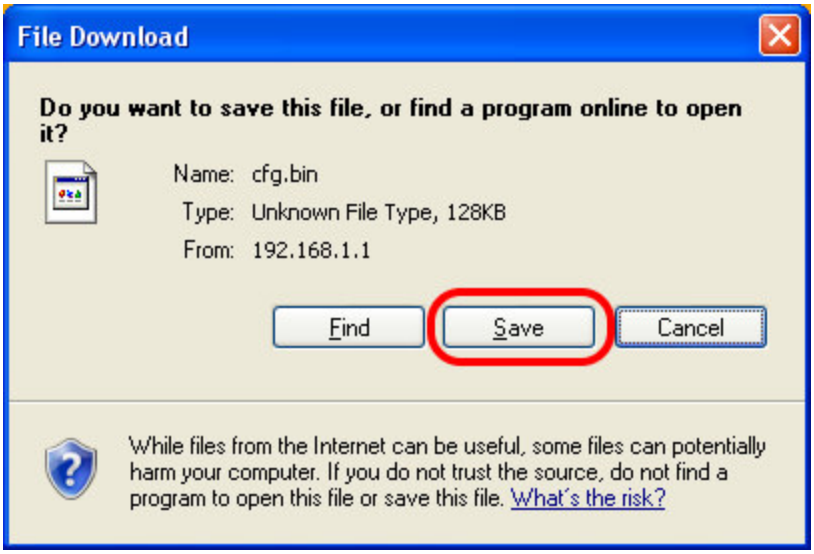
6.5. Save & Load Settings

Before upgrading, you can use this function to save current system settings or upload the previous settings after upgrading the firmware.

- **Save Settings to file**

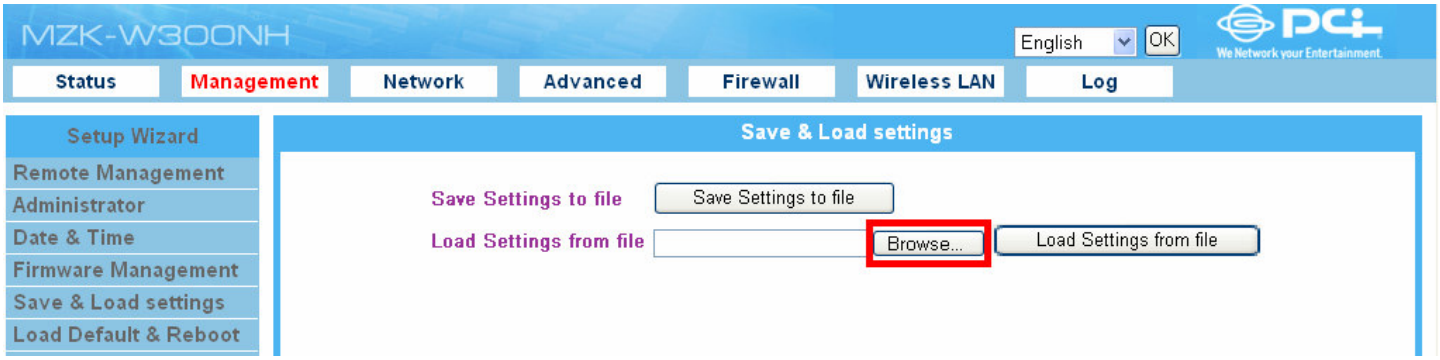
  You may click "**Save Settings to file**" button to save current system settings to your local disk. (The format will be "***.bin**" file)

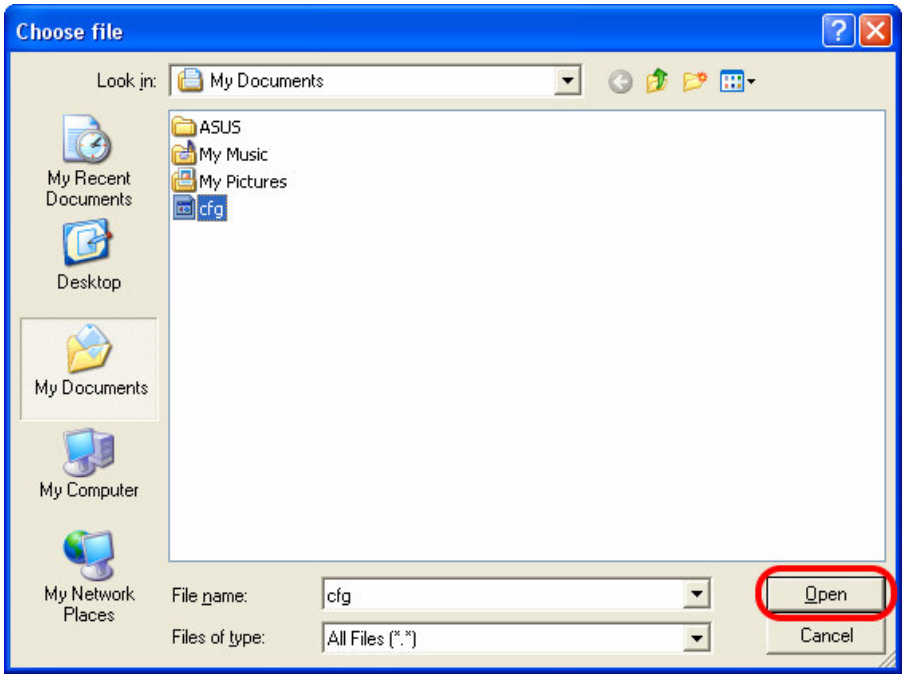


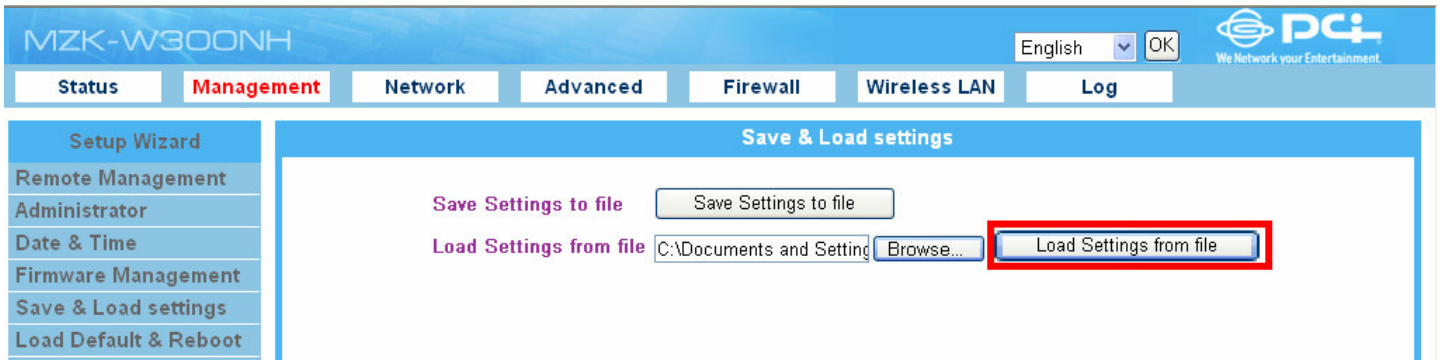


- **Restore Settings**

  Make sure the saved system setting file is in the local host disk and then click "**Browse...**" to search for the saved system setting file. Click "**Open**" to select the system setting file that you want and then click "**Load Settings from file**" to start restore the settings.


MZK-W300NH
English
OK
Status
Management
Network
Advanced
Firewall
Wireless LAN
Log
Setup Wizard
Remote Management
Administrator
Date & Time
Firmware Management
Save & Load settings
Load Default & Reboot
Save & Load settings
Save Settings to file
Save Settings to file
Load Settings from file
Browse...
Load Settings from file

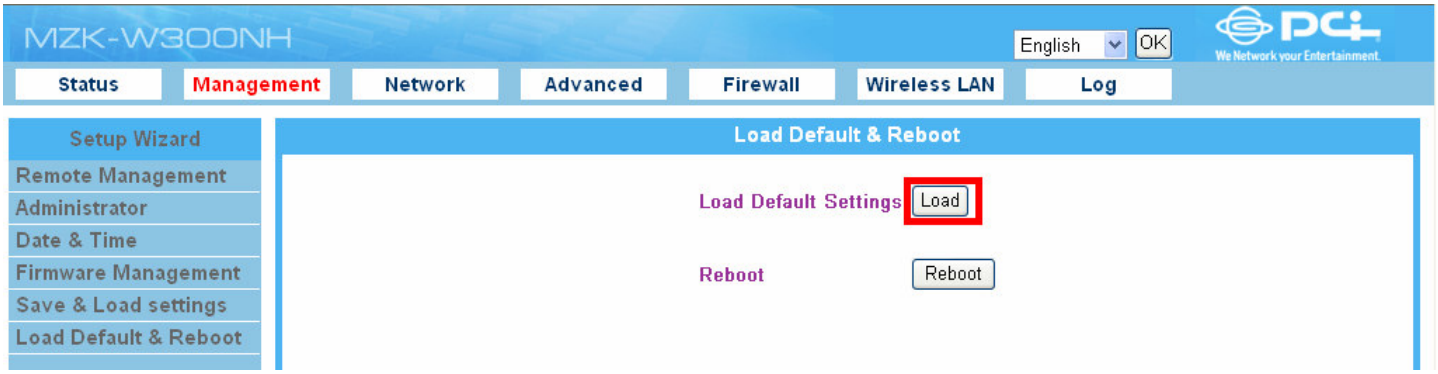

Choose file
Look in:
My Documents
ASUS
My Music
My Pictures
cfg
My Recent Documents
Desktop
My Documents
My Computer
My Network Places
File name:
cfg
Files of type:
All Files (*.*)
Open
Cancel


MZK-W300NH
English
OK
Status
Management
Network
Advanced
Firewall
Wireless LAN
Log
Setup Wizard
Remote Management
Administrator
Date & Time
Firmware Management
Save & Load settings
Load Default & Reboot
Save & Load settings
Save Settings to file
Save Settings to file
Load Settings from file
C:\Documents and Setting
Browse...
Load Settings from file

6.6. Load Default & Reboot

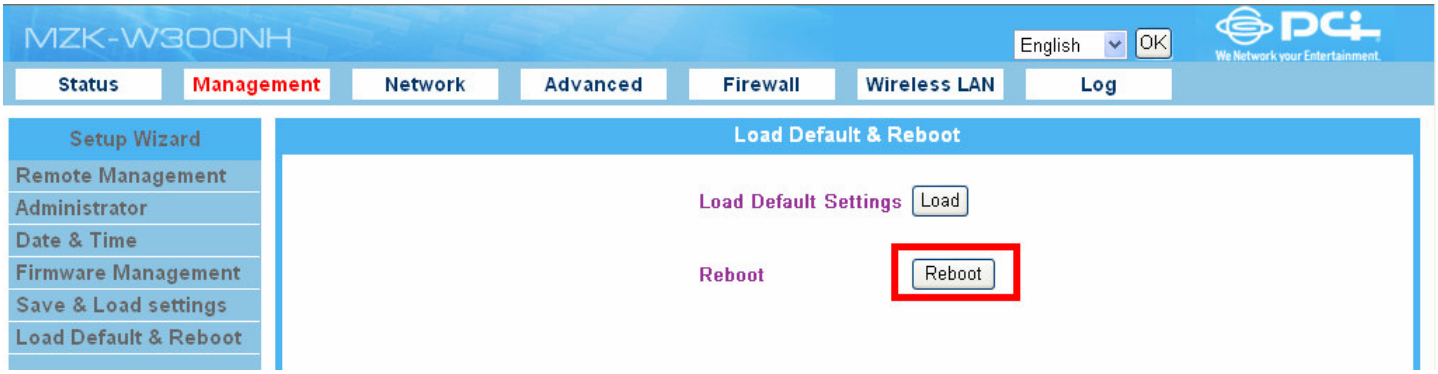
- **Load Default**

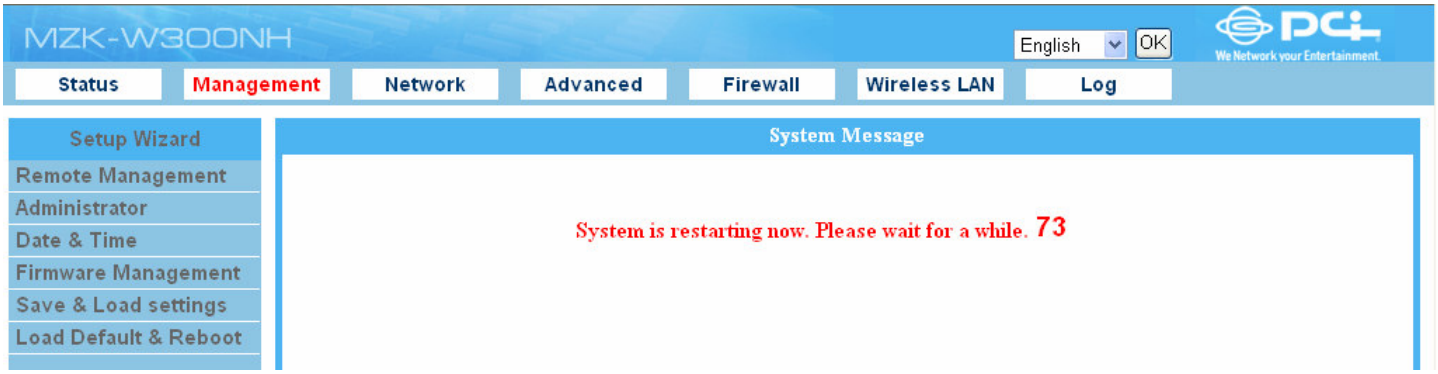
Click "**Load Default**" and then the system will restart to the factory default value afterward. After successfully restoring, the system will automatically go back to the homepage.



- **Reboot**

Go to the "**Load Default & Reboot**" configuration page, and then click "**Reboot**" to restart the system. It may take some time to complete the process, please don't turn off the power of the router before the process is completed.

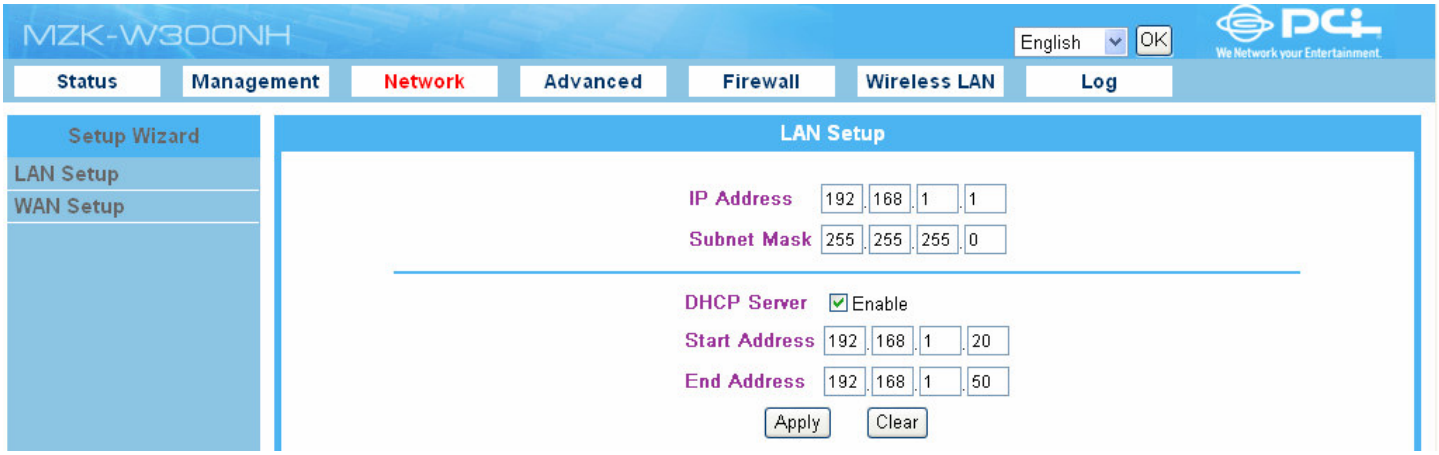



MZK-W300NH
English
OK
We Network your Entertainment.
Status
Management
Network
Advanced
Firewall
Wireless LAN
Log
Setup Wizard
Remote Management
Administrator
Date & Time
Firmware Management
Save & Load settings
Load Default & Reboot
System Message
System is restarting now. Please wait for a while. 73

7. LAN

On the LAN Settings page, you can set up **LAN IP address**; moreover, you can enable **DHCP Server** function to assign IP addresses to users on the LAN.

DHCP stands for **Dynamic Host Control Protocol**. MZK-W300NH Wireless Router has a built-in DHCP server which can automatically assign an IP address to those computers/devices on the LAN/private network. If you enable DHCP server, the client device will obtain an IP address automatically. Whenever you turn on the computer, the client device will automatically load the proper TCP/IP settings from MZK-W300NH. The DHCP server will allocate an unused IP address from the IP address pool to the requesting computer, but you must specify the beginning and ending address of the IP address pool.



LAN IP

- **IP address** : Here is the IP address of the LAN side of MZK-W300NH. It is usually the default gateway of the client's PC. The default IP address is "**192.168.1.1**".
- **Subnet Mask** : The Subnet Mask of the LAN side of MZK-W300NH is "**255.255.255.0**".

DHCP Server

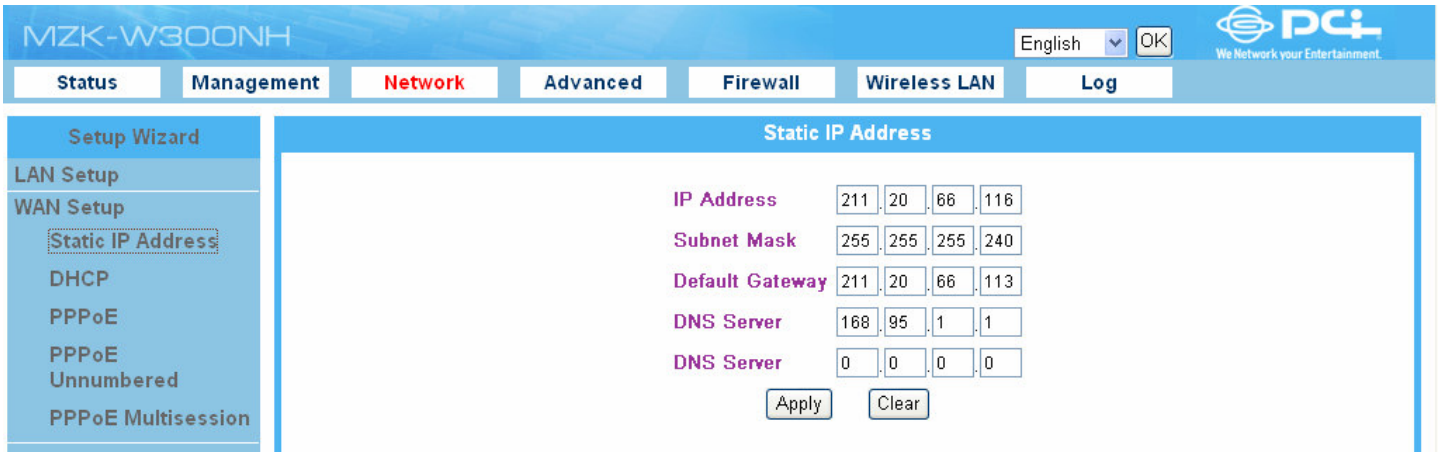
- **DHCP Server** : Click to "**Enabled**" the DHCP server of MZK-W300NH.
- **Start Address/End Address** : Please enter the first and the last IP addresses which MZK-W300NH distribute IP addresses to. The IP addresses in this range can get assigned IP addresses from MZK-W300NH. (However, all the PCs on the same LAN should use the same subnet mask.)
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

8. WAN

In the WAN settings, MZK-W300NH Wireless Router provides many kinds of access. You can configure the WAN side according to the real environment.

8.1. Static IP Address

If you do not need to make a dial-up connection, and your ISP provides you a static IP address, please choose "**Static IP Address**".



- **IP Address** : Enter the IP address provided by your ISP.
- **Subnet Mask** : Enter the Subnet Mask address provided by your ISP.
- **Default Gateway** : Enter the Gateway address provided by your ISP.
- **DNS Server 1/2** : Enter the DNS Server's address provided by your ISP. Enter the second DNS address, however, this is option and you may leave it blank.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

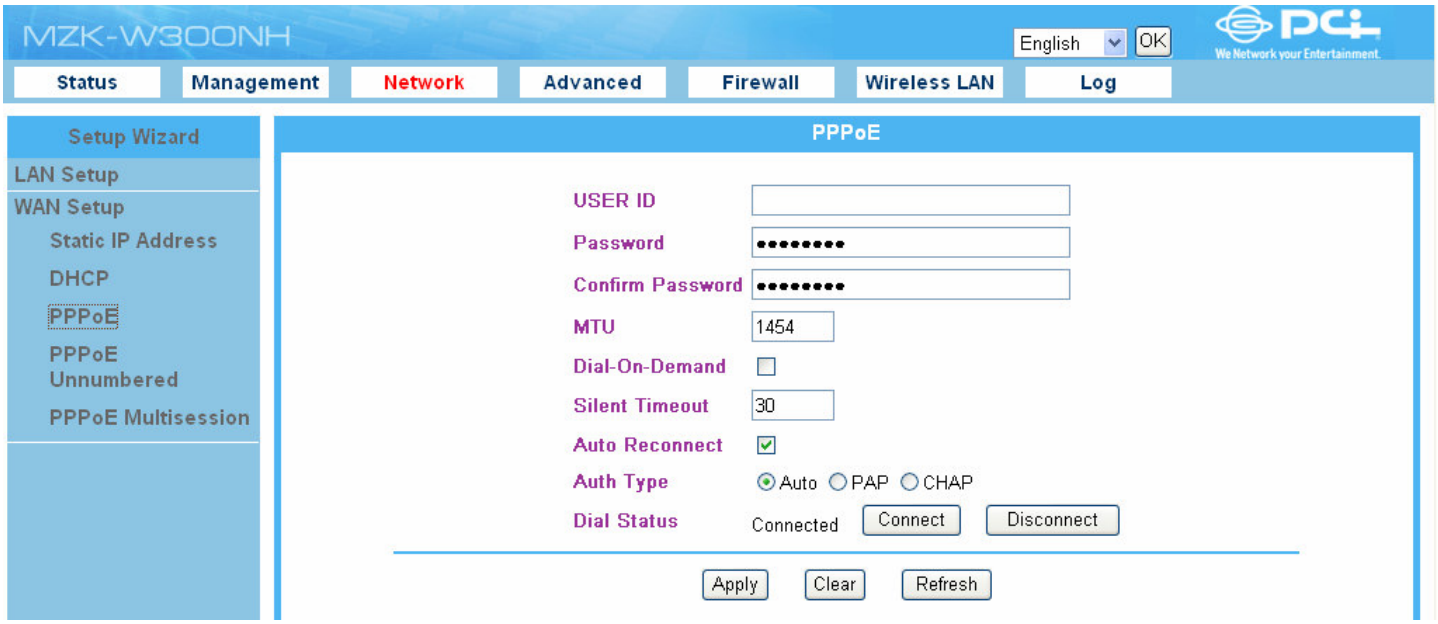
8.2. DHCP

If you automatically get the IP address from your ISP or use the Cable Modem, please choose "**DHCP**".

- **MAC address**：The default MAC address of MZK-W300NH is the Network Interface Card's (NIC) MAC address on the WAN side. If you were asked to use the NIC provided by the ISP, you may click "**Enable**" and enter the MAC address of NIC provided by the ISP. We do not suggest you to change the default MAC address, if your ISP does not ask you to change it.
- **Apply**：Click this button to save the settings.
- **Clear**：If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

8.3. PPPoE

If your ISP assigns a new IP address for you whenever you login, please choose "**PPPoE** (Point to Point Protocol over Ethernet)" from the above page.



- **USER ID** : Enter the User Name provided by your ISP. (The ID must be alphanumeric characters and case sensitive.)
- **Password** : Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)
- **Confirm Password** : Enter the Password again for verification.
- **MTU** : MTU means **Maximum Transmission Unit**, the largest physical packet size, measured in bytes, that a network can transmit. The default value is **1454**. Please set up the MTU according to your system environment. Only enter a new MTU when your ISP requires, otherwise, please leave it as the default setting. When using PPPoE connection, you may need to change MTU settings to maintain the connection with your ISP, however, if the incorrect value was entered, you may be unable to access certain websites. Reducing the packet size can help connecting to certain websites or speeding up the transmission rate.
- **Dial-On-Demand/Silent Timeout** : You may disconnect the connection when there is no activity for a period of time and set the Silent Timeout in the next field. Silent Timeout means a period of idle time before you go offline. Enter a maximum period of time (minute) to define the maximum idle time. If the silent time is above the defined maximum idle time, it will go offline immediately. You can set the value to be 0 or Auto Reconnect to disable this function.
- **Auto Reconnect/Dial Status/Connect/Disconnect** : If you choose Auto Reconnect, MZK-W300NH Wireless Router will automatically reconnect to your ISP when you restart the system or the connection is stopped. To enable "**Auto Reconnect**" you must set "**Silent Timeout**" to be 0 or leave the field blank; otherwise there might be a warning message. Click "**Connect**" to manually make a connection or click "**Disconnect**" to disconnect the connection.
- **Auth Type** : You may choose **PAP** or **CHAP** authentication to enhance the security of data

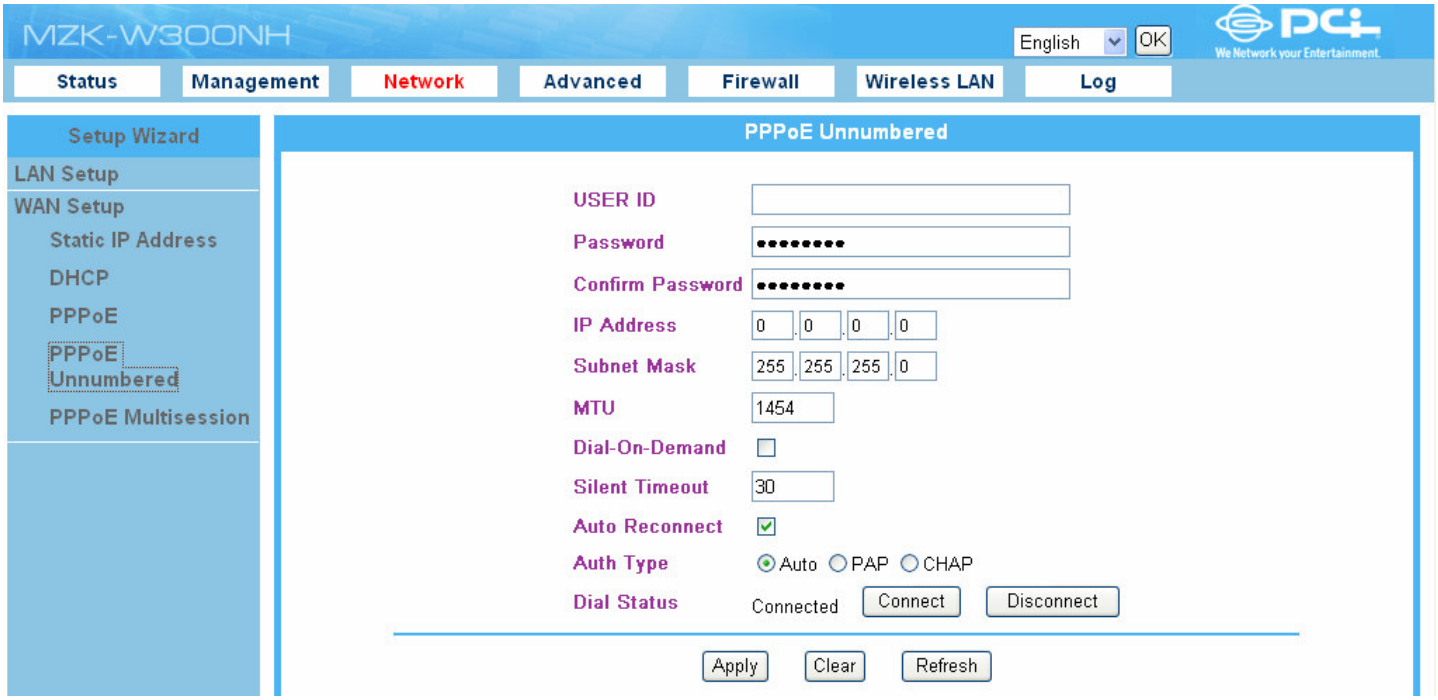
transmission.

- **PAP** –Short for **Password Authentication Protocol**, the most basic form of authentication, in which a user's name and password are transmitted over a network and compared to a table of name-password pairs. Typically, the passwords stored in the table are encrypted. The Basic Authentication feature built into the HTTP protocol uses PAP. The main weakness of PAP is that both the username and password are transmitted "in the clear" -- that is, in an unencrypted form.
- **CHAP** –Short for **Challenge Handshake Authentication Protocol**, a type of authentication in which the authentication agent (typically a network server) sends the client program a random value that is used only once and an ID value. Both the sender and peer share a predefined secret.

- **Apply**：Click this button to save the settings.
- **Clear**：If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.
- **Refresh**：Click this button to update to the latest status.

8.4. PPPoE Unnumbered

Unnumbered PPPoE can let you manage a range of IP addresses but only need to dial once. When an IP address is received at the gateway, the driver will use network mask to configure the subnet mask of ASIC. At the server side, you must delete the corresponding hot route and add a new network route so that the packets can be correctly routed to gateway.

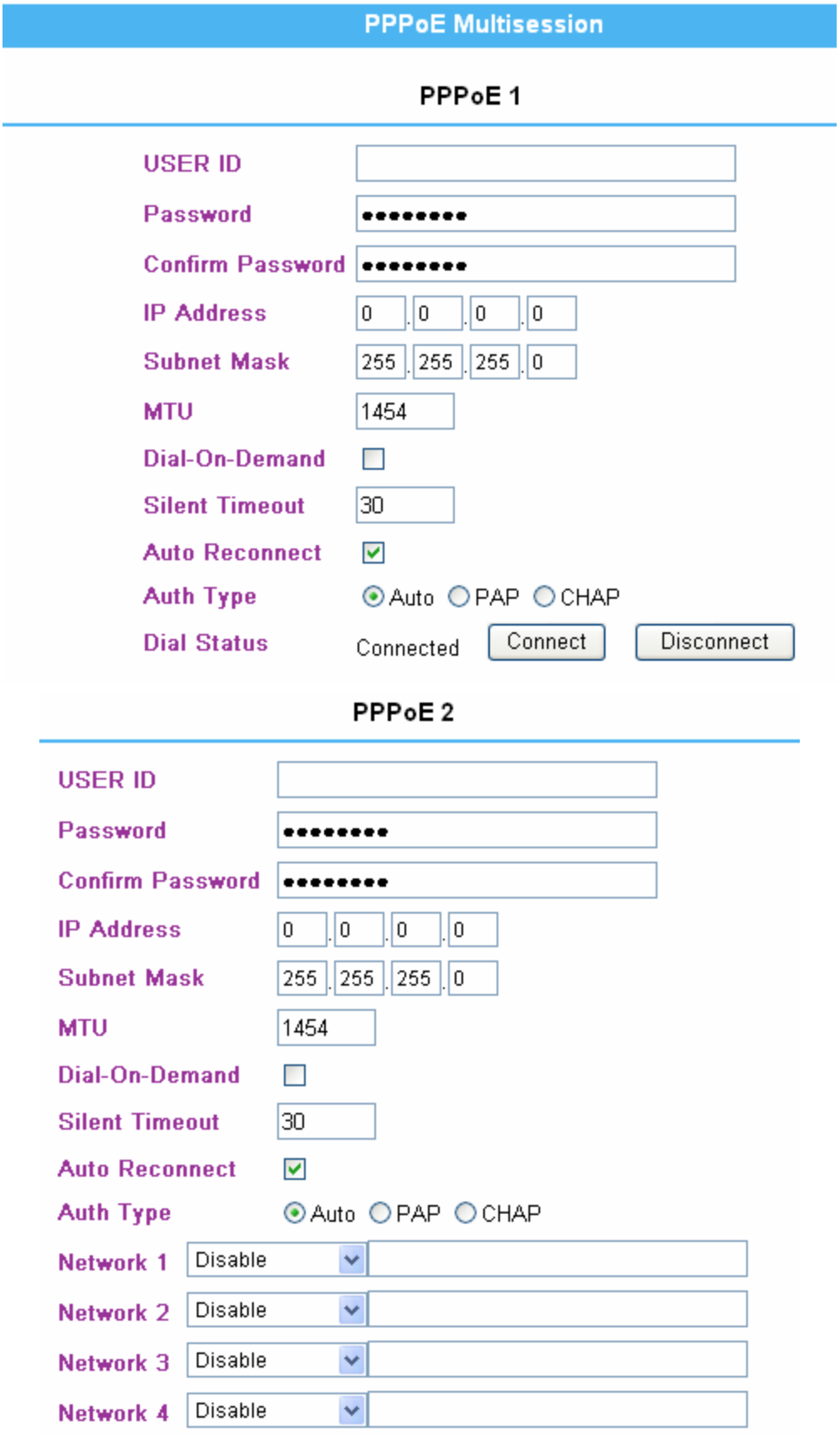


- **USER ID** : Enter the User Name provided by your ISP. (The ID must be alphanumeric characters and case sensitive.)
- **Password** : Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)
- **Confirm Password** : Enter the Password again for verification.
- **IP Address** : Please enter the IP address provided by your ISP.
- **Subnet Mask** : Please enter the subnet mask address provided by the ISP.
- **MTU** : MTU means **Maximum Transmission Unit**, the largest physical packet size, measured in bytes, that a network can transmit. The default value is **1454**. Please set up the MTU according to your system environment. Only enter a new MTU when your ISP requires, otherwise, please leave it as the default setting. When using PPPoE connection, you may need to change MTU settings to maintain the connection with your ISP, however, if the incorrect value was entered, you may be unable to access certain websites. Reducing the packet size can help connecting to certain websites or speeding up the transmission rate.
- **Dial-On-Demand/Silent Timeout** : You may disconnect the connection when there is no activity for a period of time and set the Silent Timeout in the next field. Silent Timeout means a period of idle time before you go offline. Enter a maximum period of time (minute) to define the maximum idle time. If the silent time is above the defined maximum idle time, it will go offline immediately. You can set the value to be 0 or Auto Reconnect to disable this function.

- **Auto Reconnect/Dial Status/Connect/Disconnect**：If you choose Auto Reconnect, MZK-W300NH Wireless Router will automatically reconnect to your ISP when you restart the system or the connection is stopped. To enable "**Auto Reconnect**" you must set "**Silent Timeout**" to be 0 or leave the field blank; otherwise there might be a warning message. Click "**Connect**" to manually make a connection or click "**Disconnect**" to disconnect the connection.
- **Auth Type**：You may choose **PAP** or **CHAP** authentication to enhance the security of data transmission.
  - **PAP** –Short for **Password Authentication Protocol**, the most basic form of authentication, in which a user's name and password are transmitted over a network and compared to a table of name-password pairs. Typically, the passwords stored in the table are encrypted. The Basic Authentication feature built into the HTTP protocol uses PAP. The main weakness of PAP is that both the username and password are transmitted "in the clear" -- that is, in an unencrypted form.
  - **CHAP** –Short for **Challenge Handshake Authentication Protocol**, a type of authentication in which the authentication agent (typically a network server) sends the client program a random value that is used only once and an ID value. Both the sender and peer share a predefined secret.
- **Apply**：Click this button to save the settings.
- **Clear**：If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.
- **Refresh**：Click this button to update to the latest status.

8.5. PPPoE Multisession

Using Multiple PPPoE, you can login to the different ISP concurrently and connect to the Internet. MZK-W300NH provides two connections: PPPoE 1 and PPPoE 2.



- **USER ID** : Enter the User Name provided by your ISP. (The ID must be alphanumeric characters and case sensitive.)
- **Password** : Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)
- **Confirm Password** : Enter the Password again for verification.
- **MTU** : MTU means **Maximum Transmission Unit**, the largest physical packet size, measured in bytes, that a network can transmit. The default value is **1454**. Please set up the MTU according to your system environment. Only enter a new MTU when your ISP requires, otherwise, please leave it as the default setting. When using PPPoE connection, you may need to change MTU settings to maintain the connection with your ISP, however, if the incorrect value was entered, you may be unable to access certain websites. Reducing the packet size can help connecting to certain websites or speeding up the transmission rate.
- **Dial-On-Demand/Silent Timeout** : You may disconnect the connection when there is no activity for a period of time and set the Silent Timeout in the next field. Silent Timeout means a period of idle time before you go offline. Enter a maximum period of time (minute) to define the maximum idle time. If the silent time is above the defined maximum idle time, it will go offline immediately. You can set the value to be 0 or Auto Reconnect to disable this function.
- **Auto Reconnect/Dial Status/Connect/Disconnect** : If you choose Auto Reconnect, MZK-W300NH Wireless Router will automatically reconnect to your ISP when you restart the system or the connection is stopped. To enable "**Auto Reconnect**" you must set "**Silent Timeout**" to be 0 or leave the field blank; otherwise there might be a warning message. Click "**Connect**" to manually make a connection or click "**Disconnect**" to disconnect the connection.
- **Auth Type** : You may choose **PAP** or **CHAP** authentication to enhance the security of data transmission.
  - **PAP** –Short for **Password Authentication Protocol**, the most basic form of authentication, in which a user's name and password are transmitted over a network and compared to a table of name-password pairs. Typically, the passwords stored in the table are encrypted. The Basic Authentication feature built into the HTTP protocol uses PAP. The main weakness of PAP is that both the username and password are transmitted "in the clear" -- that is, in an unencrypted form.
  - **CHAP** –Short for **Challenge Handshake Authentication Protocol**, a type of authentication in which the authentication agent (typically a network server) sends the client program a random value that is used only once and an ID value. Both the sender and peer share a predefined secret.
- **Network 1~4** : When using NAPT LAN type, you may do the following settings.
  - **Disable:** Choose this to disable the function.

- **IP Address**：Please enter the range of IP addresses provided by your ISP.
- **Domain Name**：You can set a domain name as the transmission rule. For example, entering "**planex.com.tw**" in this column, it means the packets which use planex.com.tw as destination will be delivered through this segment.

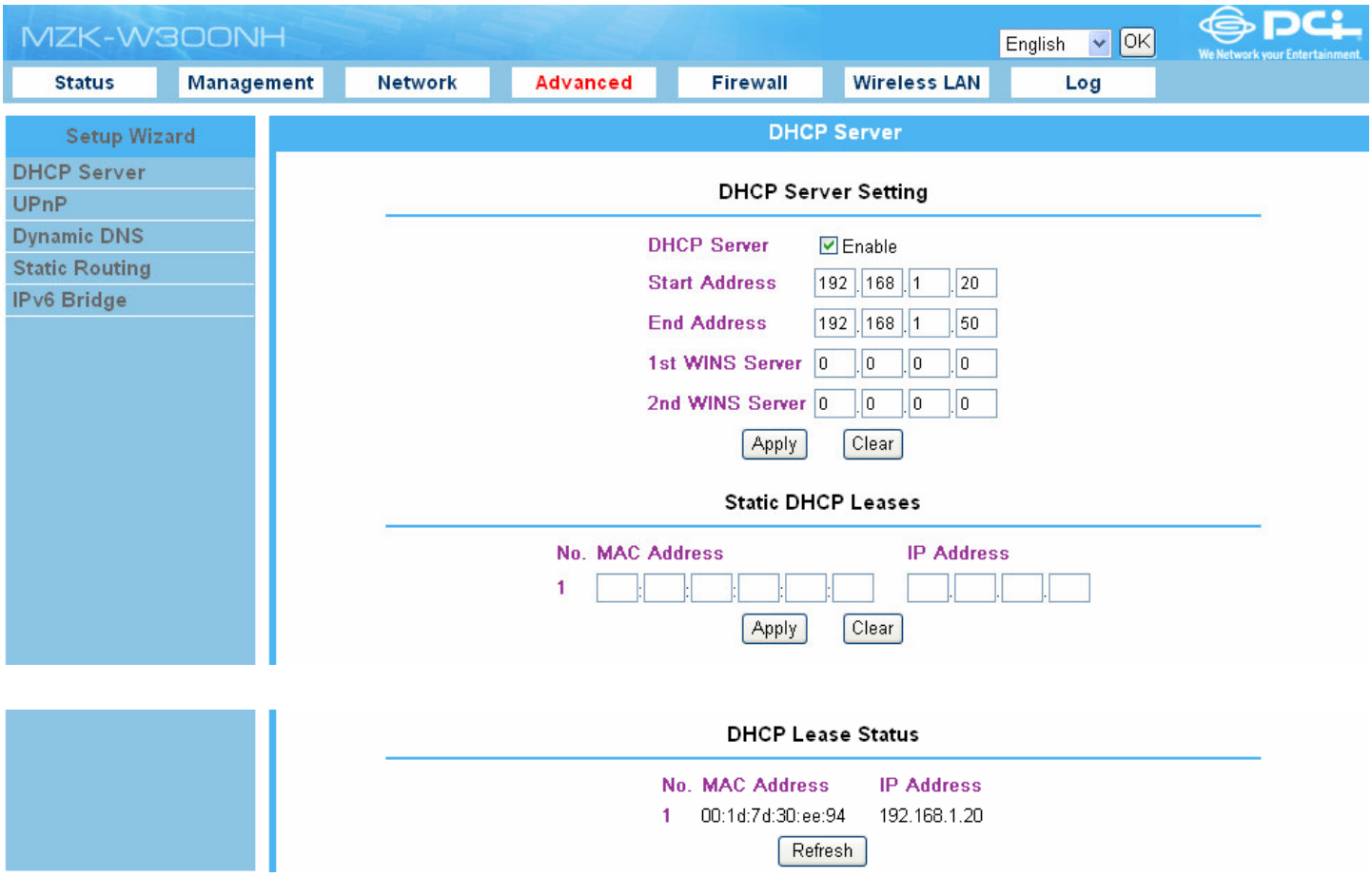
- **Apply**：Click this button to save the settings.
- **Clear**：If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.
- **Refresh**：Click this button to update to the latest status.

Chapter3 Advanced Setup & Configuration

1. Advanced

1.1. DHCP Server

Dynamic DNS can let you connect with one or more DDNS services to update your current dynamic IP address. **DHCP** stands for **Dynamic Host Control Protocol**. MZK-W300NH Wireless Router has a built-in DHCP server which can automatically assign an IP address to those computers/devices on the LAN/private network. If you enable DHCP server, the client host will obtain an IP address automatically. Whenever you turn on the computer, it will automatically load the proper TCP/IP settings from MZK-W300NH. The DHCP server will allocate an unused IP address from the IP address pool to the requesting computer, but you must specify the beginning and ending address of the IP address pool.



DHCP Server Setting

- **DHCP Server**：Click to enable the built-in DHCP server, it will automatically distribute IP addresses to the devices which send request to it.
- **Start Address/End Address**：Please enter the first and the last IP addresses which MZK-W300NH distribute IP addresses to. The IP addresses in this range can get assigned IP addresses from MZK-W300NH. (However, all the PCs on the same LAN should use the same subnet mask.)
- **1st/ 2nd WINS Server**：If you already set and need the WINS server, you can fill in the IP address of the WINS server in the columns.

- **Apply** : After finishing setting up DHCP server, click this button to save the settings.
- **Clear** : If you want to clear the settings you just made, click this button.

Static DHCP Leases

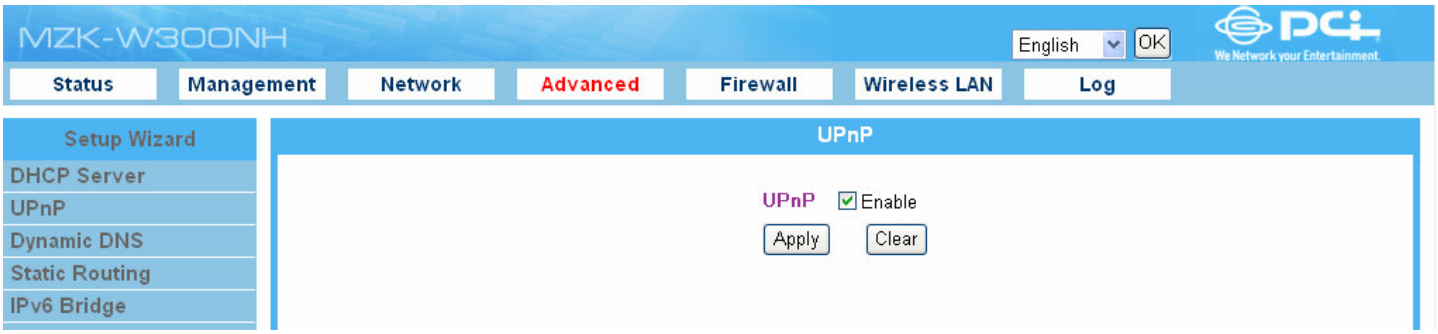
- **MAC address** : Enter the MAC address of the PC or network device.
- **IP address** : Enter the IP address you want to assign to the PC or network device.
- **Apply** : After entering the MAC address and IP address, click this button to save the settings.
- **Clear** : If you want to clear the just entered MAC address or IP address, click this button.

DHCP Lease Status

- **DHCP Lease Status** : If you already set a range of IP addressed for the DHCP server to distribute, the clients who get the IP addresses will be listed here.
- **Refresh** : Click this button to update to the latest status.

1.2. UPnP

If your Windows Operating System supports UPnP service, when you enable the UPnP service and the MZK-W300NH Wireless Router is connecting with the computer, the task bar will show the icon of MZK-W300NH to inform you that a new device is found and inquire you whether if you want to set a shortcut on the desktop.



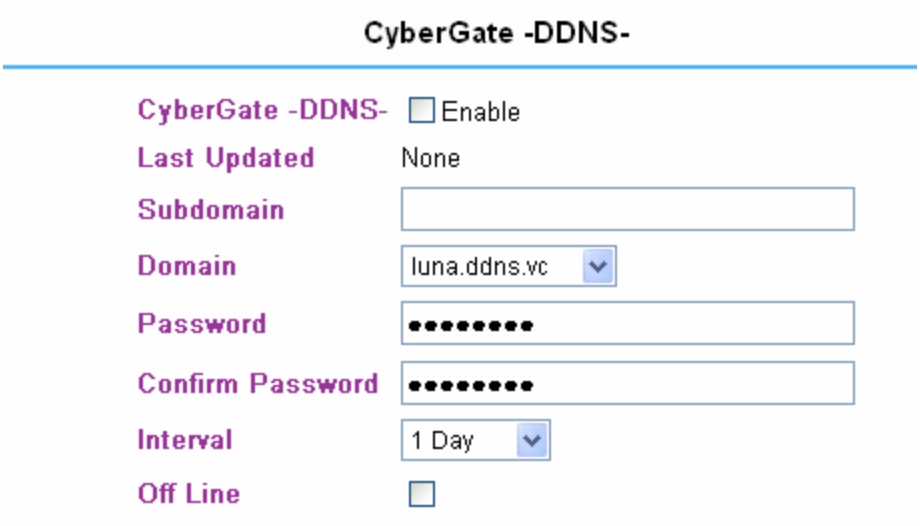
- **Enable** : If your operating system supports this function, you may check to enable it.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

1.3. Dynamic DNS

Dynamic DNS can let you connect with one or more DDNS services to update your current dynamic IP address. To make a WEB server publicly accessible on the Internet, a static global IP address needs to be assigned to MZK-W300NH. Even when there is an always-on connection, however, disconnection does occur and the IP address may dynamically change after reconnection. When Dynamic DNS is enabled, the IP address of the product is reported to a Dynamic DNS server at regular intervals so that it can use the same static host name even after IP has changed.

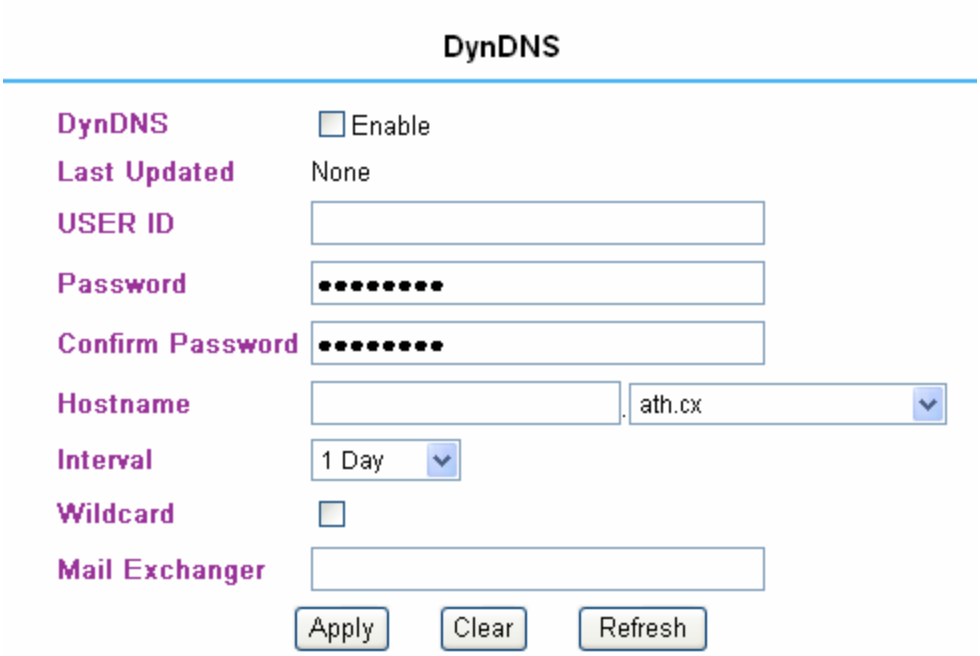
MZK-W300NH supports www.dyndns.org and cybergate.planex.co.jp Dynamic DNS services. www.dyndns.org and cybergate.planex.co.jp are free services. Before enabling DDNS configuration on the product, be sure to access either of the former websites and register your user name, password, host name, and so on.

For more details about creating an account on CyberGate DDNS website, please refer to: http://www.planex.co.jp/support/download/router/MZK-W300NH/v10/html/menu-3-12.html



CyberGate -DDNS-

- **CyberGate –DDNS-** : You may choose a DDNS provider and then click to enable DDNS function. The default status is **Disabled**.
- **Last Updated** : Show the status of last update.
- **Subdomain** : Enter the sub-domain which you registered on CyberGate website.
- **Domain** : Select the Domain Name which you registered.
- **Password** : Enter the Password or Key which you use to login the service.
- **Confirm Password** : Enter the Password again for verification.
- **Interval** : Choose an interval to renew DNS information. You can choose: 1 Day, 3 Days, 5 Days, 1 Week, or 2 Weeks.
- **Off Line** : Click to be off-line.

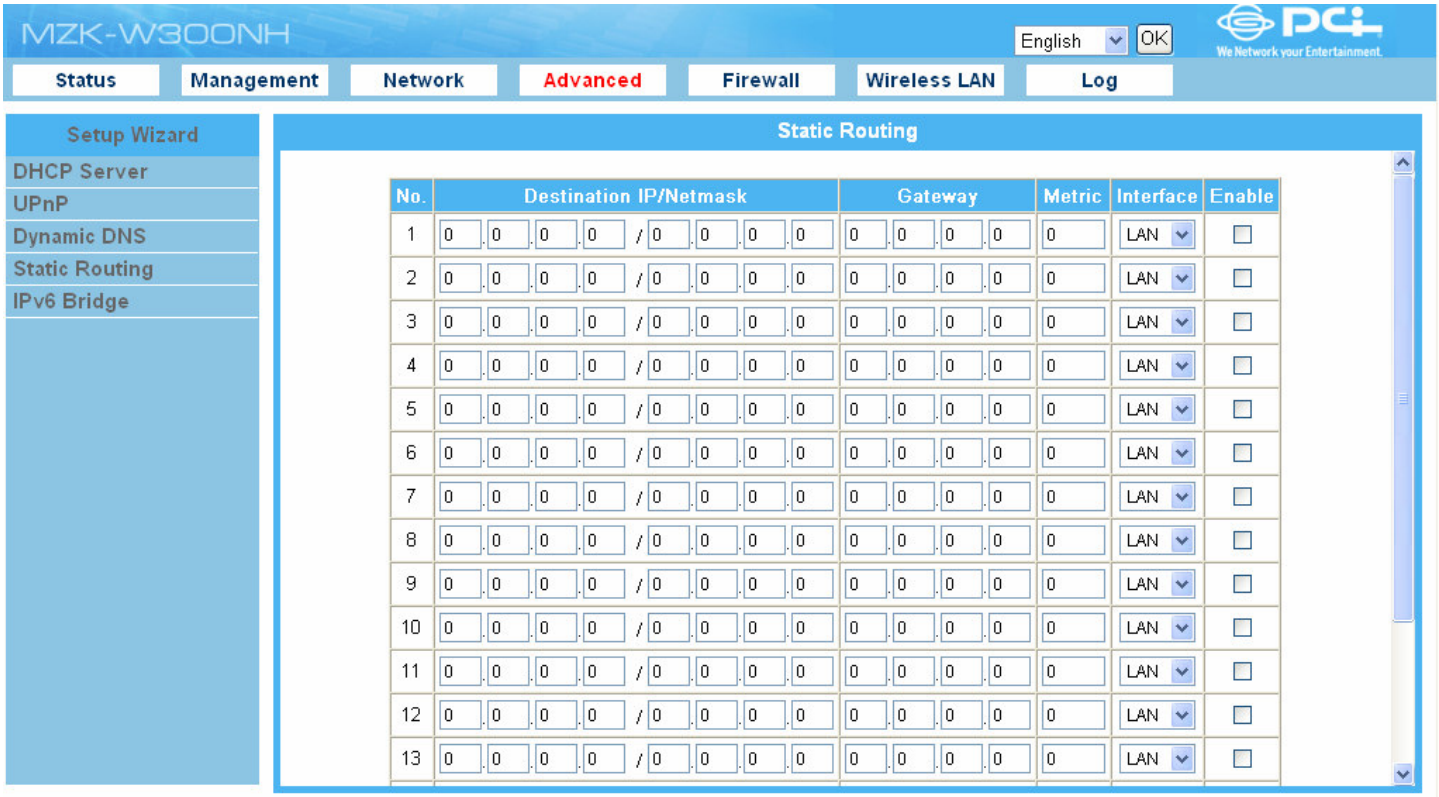


DynDNS

- **DynDNS**：You may choose a DDNS provider and then click to enable DDNS function. The default status is **Disabled**.
- **Last Updated**：Show the status of last update.
- **User ID**：Enter the User ID which you registered on DynDNS website.
- **Password**：Enter the Password or Key which you use to login the service.
- **Confirm Password**：Enter the Password again for verification.
- **Hostname**：Enter the Hostname which you registered on DynDNS website.
- **Interval**：Choose an interval to renew DNS information. You can choose: 1 Day, 3 Days, 5 Days, 1 Week, or 2 Weeks.
- **Wildcard**：When setting the alias of sub-domain name, please click to enable this function. For example, sub-domain of www.planex.dyndns.org, ftp.planex.dyndns.org and etc., can use the same IP address with the host name of planex.dyndns.org.
- **Mail Exchanger**：Enter the transferring setting of the mail server set with the host name on DynDNS website.
- **Apply**：Click this button to save the settings.
- **Clear**：If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

1.4. Static Routing

This section describes how to manually add routing information.



- **Destination IP/Netmask** : Enter the IP address of packet destination and Netmask of packet destination.
- **Gateway** : Enter the address of the first gateway through which the target network is reached.
- **Metric** : Enter the hop count number (the number of gateways used between the product and target network).
- **Interface** : Select the interface for which static routing is configured.
- **Enable** : Put a check in the check box to enable each route.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.