



TP-LINK®

User Guide

TL-WPS510U

Pocket-sized Wireless Print Server



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FCC 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 or more 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.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

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

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment."

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

2400.0-2483.5 MHz

Country	Restriction	Reason/remark
Bulgaria		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		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		Only for indoor applications

Note: It not used outdoors in France.

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DECLARATION OF CONFORMITY

For the following equipment:

Product Description: **Wireless Print Server**

Model No.: **TL-WPS510U**

Trademark: **TP-LINK**

We declare under our own responsibility that the above products satisfy all the technical regulations applicable to the product within the scope of Council Directives:

Directives 1999 / 5 / EC, Directives 2004 / 108 / EC, Directives 2006 / 95 / EC

The above product is in conformity with the following standards or other normative documents

Radio	ETSI EN 300 328 V1.7.1: 2006
EMC	ETSI EN 301 489-1 V1.6.1: 2005 ETSI EN 301 489-17 V1.2.1: 2002
Health & Safety	EN 60950-1:2006

The product carries the CE Mark:



This device is intended for home and office use in all EU countries (and other countries following the EU directive 1999/5/EC)

Signature:

Zhao Jianjun

Director of International Business

Date of Issue: 2008-04-30

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Chapter 1. Introduction

1.1 Product Overview

The external print servers enhance capability by letting you place your printers at convenient locations directly on the Ethernet network, and by increasing network printer performance and management. Please note that the print server does not support printing with host-based printers, e.g. CAPT, GDI, PPA.

1.2 Network configuration

The print servers provide an embedded web server that can be accessed via a proper web browser. We also subsidiary Windows-based PSAdmin utility which help administrator to setup print server environment.

1.3 Components and Features

Dongle-sized Wireless Print Server

- 1-USB2.0 High Speed port(PID1)
- 1 Setup CD contains driver and manual for Windows system
- One external AC power adapter
- One Quick Installation Guide
- Built-in Reset Button

1.4 LED Indicators

LED	Status	Indication
Power	On (Red)	The Print Server's power is on.
	Off	The Print Server's power is off.
WLAN	Blinking (Green)	Indicating the linkage and data transmission via wireless connectivity.

Chapter 2. Installation

Before you start, you should prepare the following items:

- One Windows-based computer with print server setup CD
- One printer
- One printer cable
- One 802.11b/g Access Point (optional)

2.1 Hardware Installation

To install the print servers, you need to complete these steps:

- 1) Confirm that your printer parallel port or USB Port works well.
- 2) Connect the print server to the network and printer, and plug in the print server.

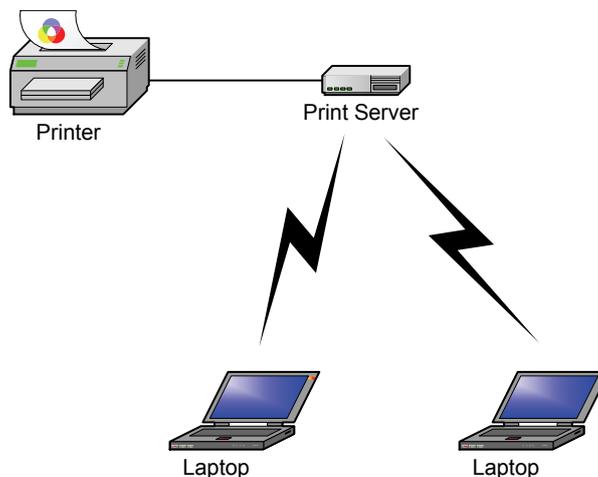
Follow these instructions to install the print servers, please refer to any peripheral you are connecting to the print server:

- 1) Turn off the printer's power.
- 2) Connect the print server to your printer with the supplied printer cable.
- 3) Turn the printer's power on.
- 4) Plug the AC power adapter into the power connector on the print server.
- 5) Wait 40 seconds as part of the print server's Power On Self Test (POST).

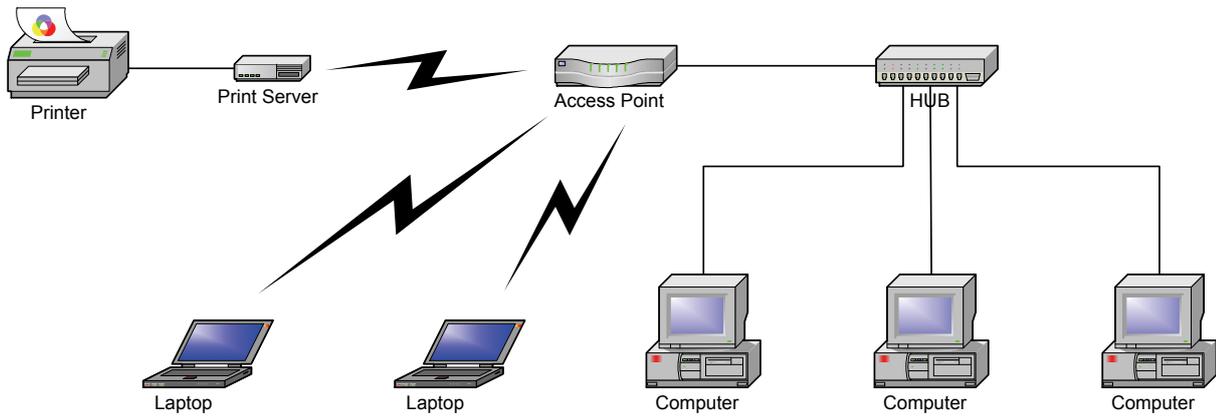
2.2 Network Environment

2.2.1 Wireless Network with Print Server:

- Ad-Hoc (PEER-to-PEER) Mode – Factory Default:



➤ Infrastructure (Access Point) Mode:



2.2.2 Wireless Network with Print Server:

- Username: admin
- Password: 0000
- Wireless Mode: Ad-Hoc (Peer-to-Peer)
- Channel: 1
- SSID: WLAN-PS
- IP Address: 192.168.0.10
- Subnet Mask: 255.255.255.0

Chapter 3. Print Server Installation

3.1 Preparation

The print server supports Standard TCP/IP Port printing protocol – LPR/LPD. This means that the print server supports the most popular network operating systems today, including Windows 2000/XP/2003/Vista, Linux and Mac OS 10.2 or above.

3.2 Configuration Solution Table

Setup Operating System	Function	Remarks
PSAdmin utility / Setup Wizard		
Windows 2000/XP/2003, Vista	Install a single network on a peer-to-peer network	Easy printer installation runs from print server setup CD
Embedded Web server		
Windows-based system, Mac OS, Linux...	Remote setup print server from private network	Follow standard browser, e.g. IE or Firefox

3.3 Self-test Page

To know the current settings of print server, please follow these instructions to print the self-test page of print server.

- 1) Turn off the printer's power.
- 2) Connect the print server to your printer with the supplied printer cable.
- 3) Turn the printer's power on.
- 4) Plug the AC power adapter into the power connector on the print server.
- 5) Wait 40 seconds as part of the print server's Power On Self Test (POST).
- 6) Press the reset button for 8 seconds, and then release it.
- 7) Then, the test page includes the current settings of print server will be printed out.

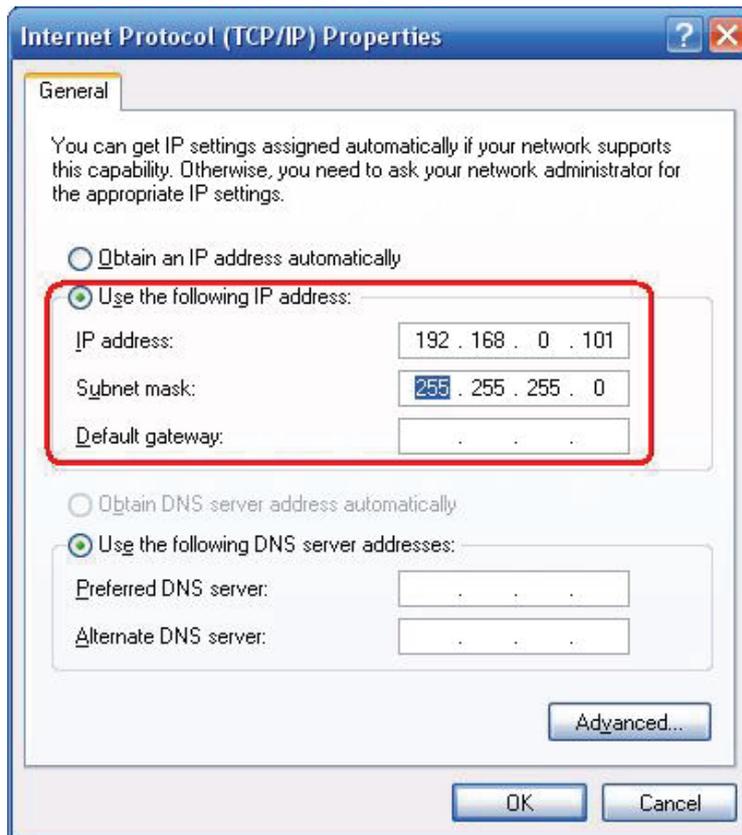
Chapter 4. Software Installation

The PSAdmin is a proprietary Windows-based management program that can assist you in configuring and managing your print server. The program can be installed from the setup CD of print server.

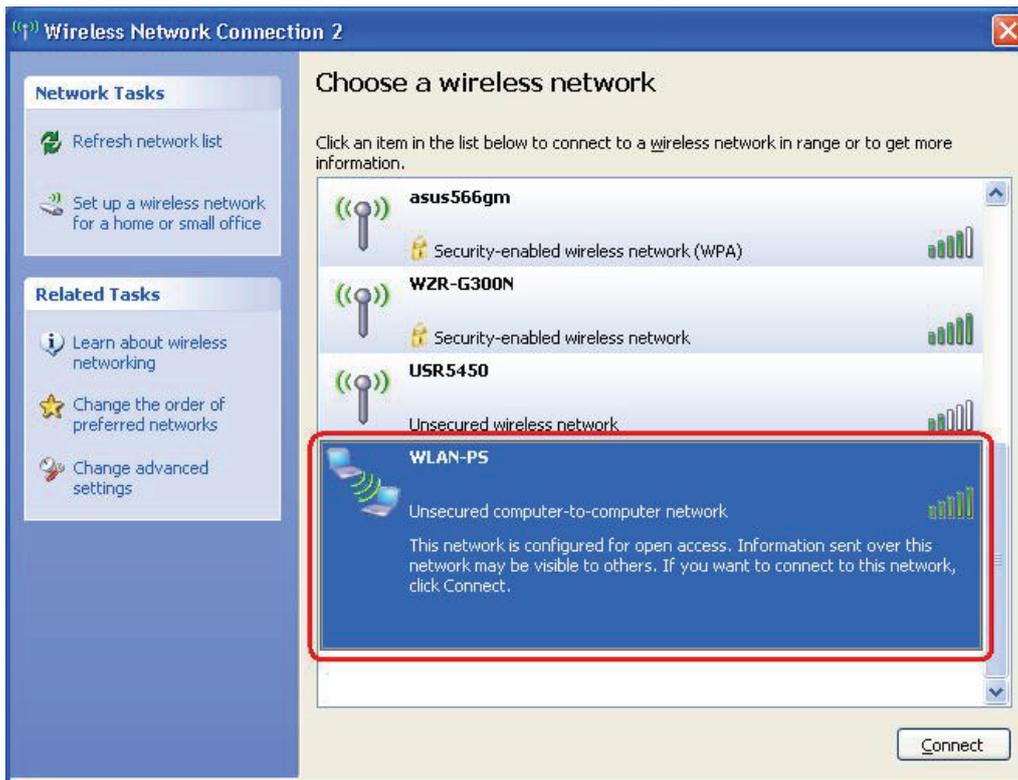
4.1 Prepare Your Computer

Prepare Your Computerto Connect Wireless Print Server first (Wireless Ad-Hoc Mode):

- 1) Please specify a proper IP address for your wireless adapter, e.g.192.168.0.101.



- 2) Find the wireless print server by Windows Zero Configuration or vendor utility of wireless adapter. Then click **Connect**.

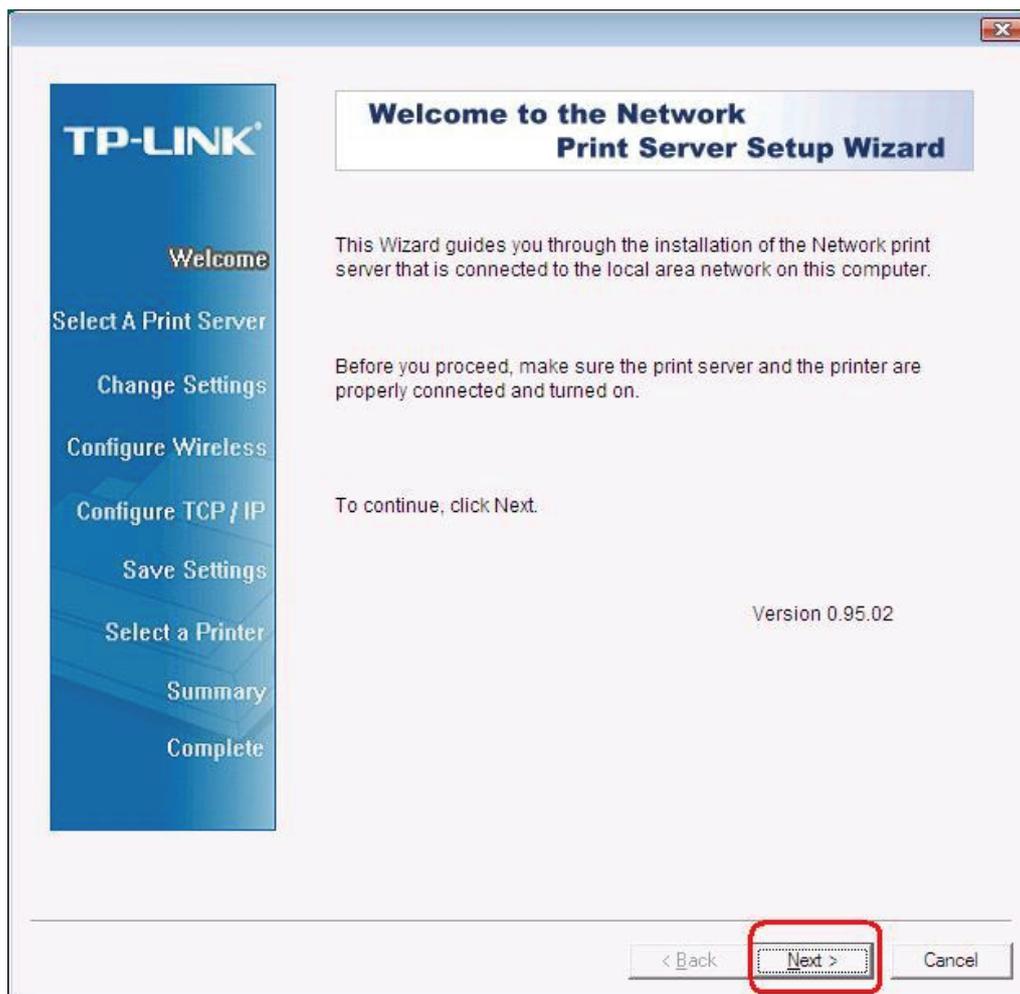


4.2 Installing the PSAdmin and Setup Wizard

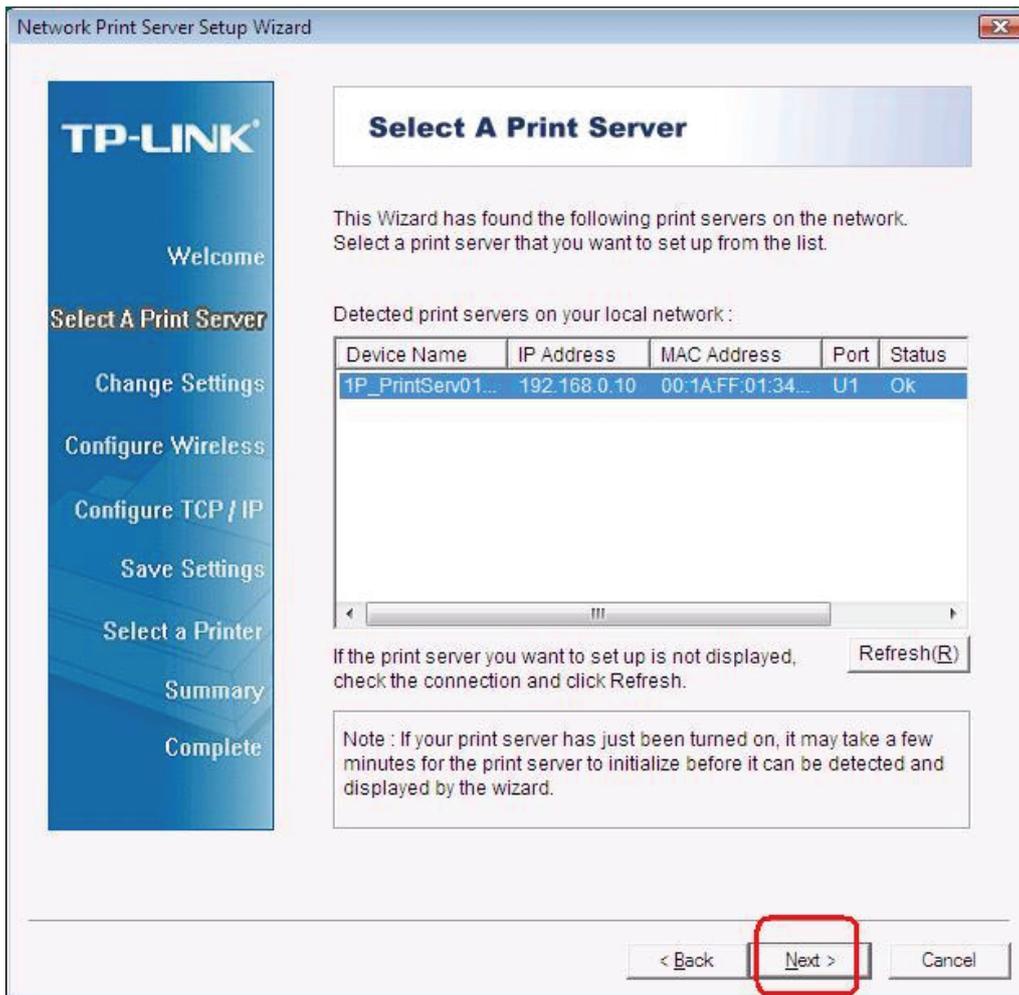
- 1) To enable network communication with print server, your computer must have a proper IP address, e.g. 192.168.0.100 (the print server's default IP is 192.168.0.10)
- 2) Insert the setup CD into your CD-drive. The autorun program will be started.
- 3) Choose **Installation** to install the print server and configure the connected printer.



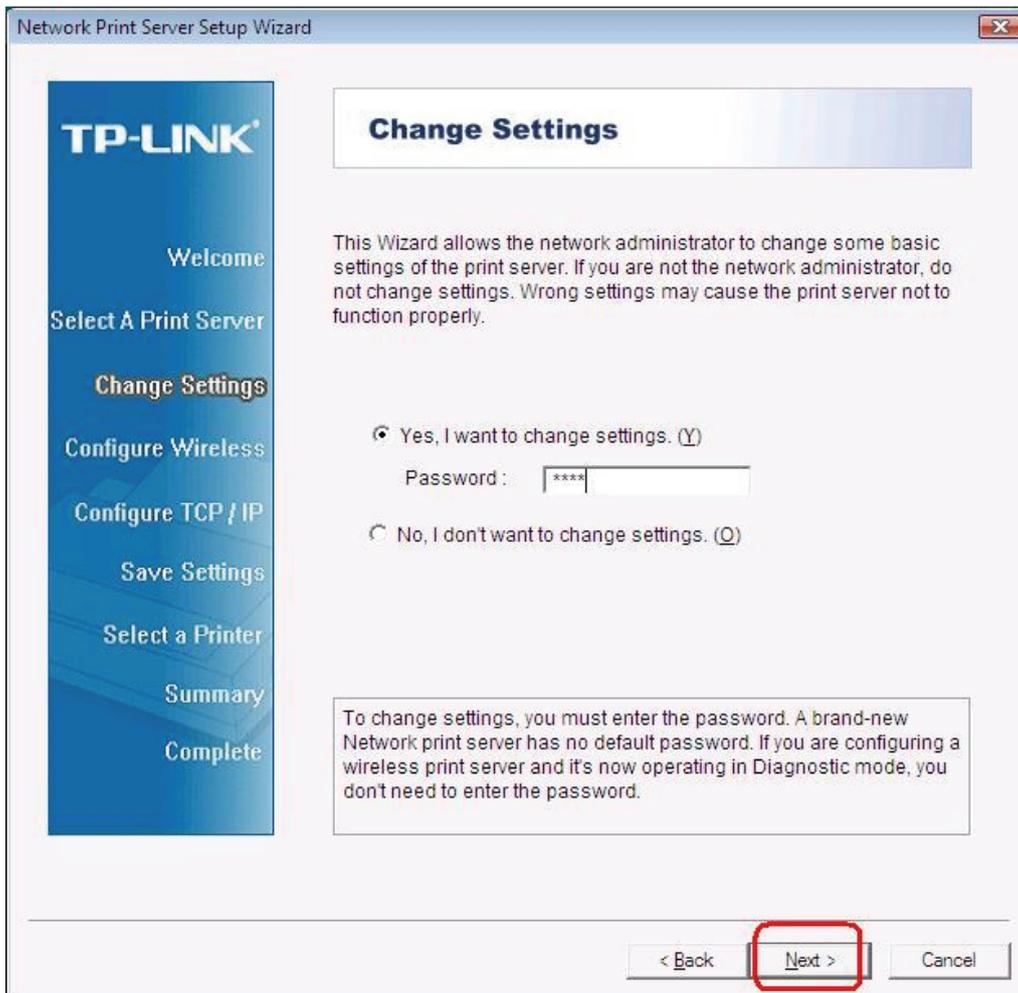
- 4) Click **Next**, the wizard will automatically discover the print server.



- 5) From the **Select A Print Server** screen, select the print server port that you want to configure and click **Next**.



6) On the **Change Settings** screen, select **No** or **Yes**:



- Click **No** if you want the print server to keep using the default IP address and the default settings:
 - Username: admin
 - Password: 0000
 - Ad-Hoc mode
 - Channel: 1
 - SSID: WLAN-PS
 - Encryption: none
 - DHCP client: Off
 - IP address: 192.168.0.10
 - Subnet Mask: 255.255.255.0
- Or click **Yes** if you want change wireless settings or assign a static IP address to the print server:

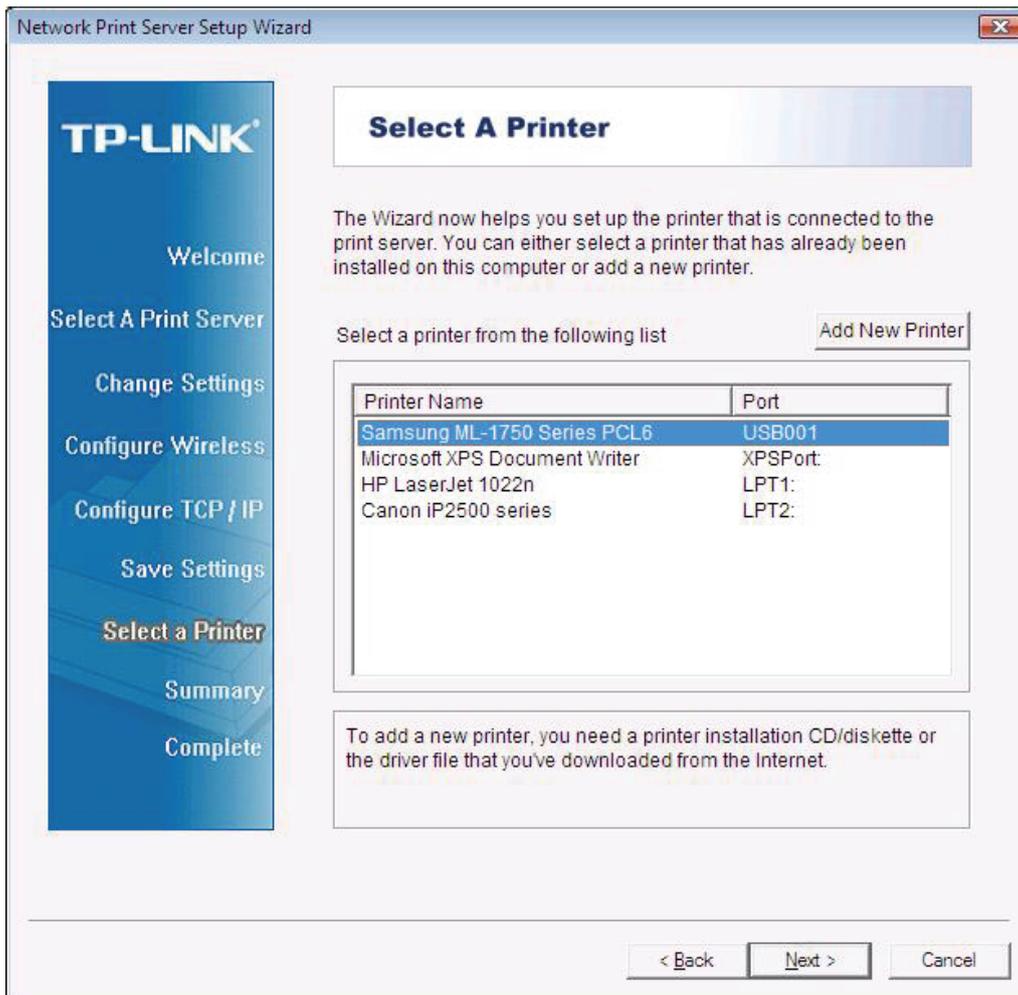
- On the **Basic Wireless Settings** screen, select **Communication Type** according to your network:
 - Infrastructure
 - Ad-Hoc
- Enter the proper **SSID** of your wireless network.
 - **Channel**: optional
 - **Data Transmit Rates**: select Auto or others
 - **Transmit Mode**: select Auto or others
- On the **Wireless Security** screen, enable or disable WEP/WPA encryption, configure according to your wireless network and click **Next**.
- On the **TCP/IP Settings** screen, specify a fixed or dynamic IP address for the print server, a fixed IP address is highly recommended. Click **Next**.

 **Note:**

The IP address of print server must be within the same subnet as your network adapter.

- 7) In the setup wizard, select an already configured printer from the list, click **Next**, **Next** and then **Finish** to complete the installation.

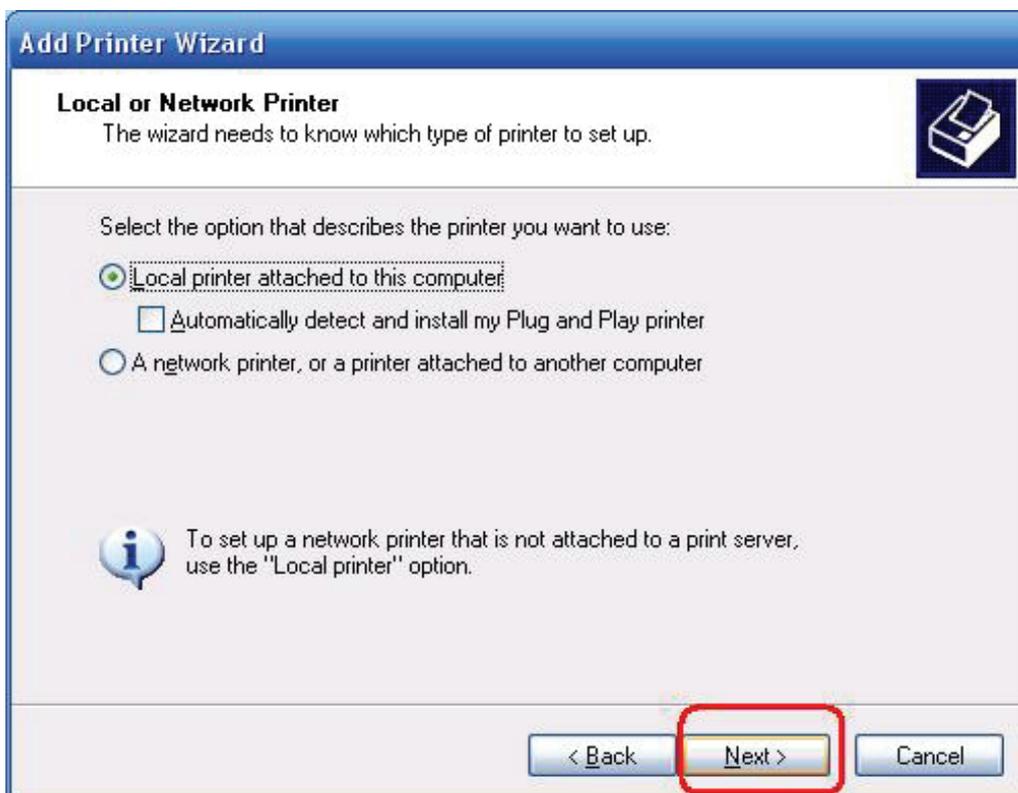
Or select **Add New Printer** if the print server is connected to a printer that hasn't been installed before and does not appear in the list.



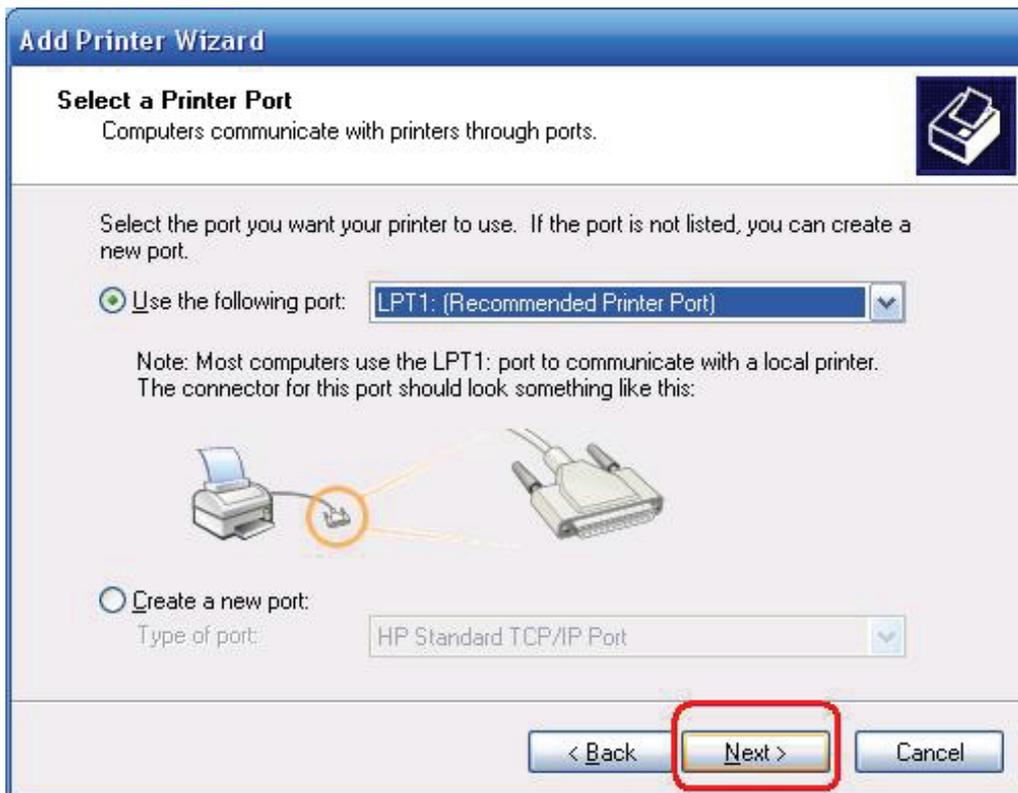
8) Click **Add New Printer** to launch **Windows Add Printer Wizard**.



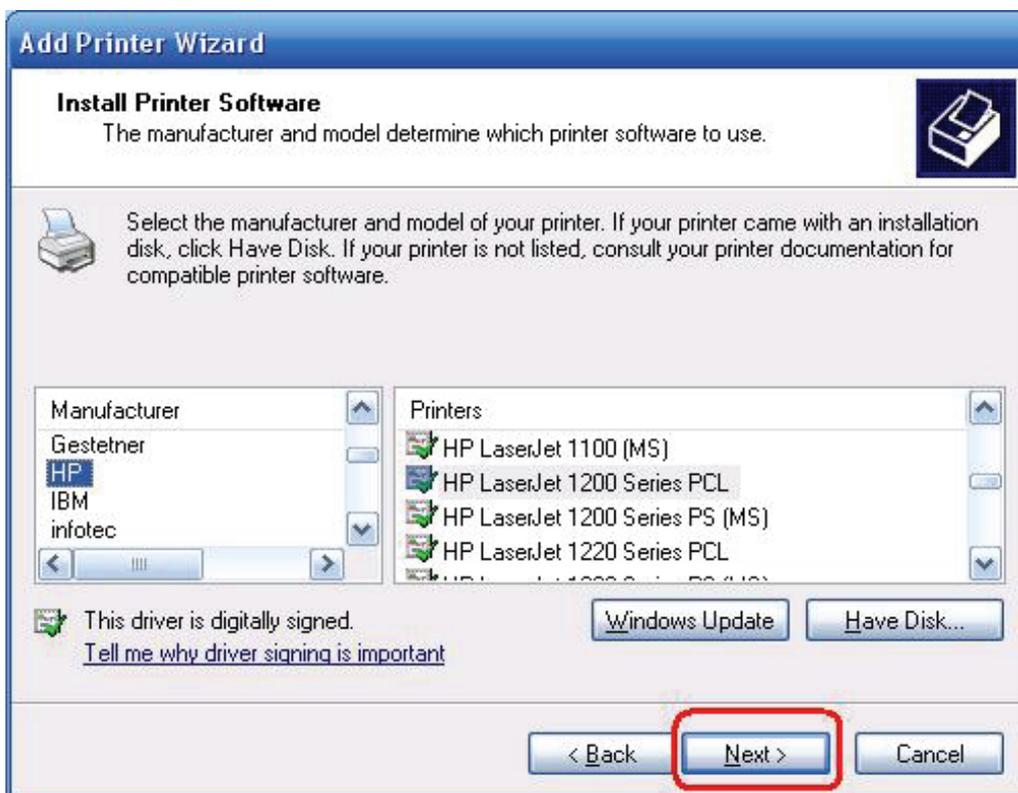
- 9) Click **Next** and select **Local Printer**, make sure the **Automatically detect and install my Plug and Play printer** check box is **NOT** checked. Then click **Next**.



- 10) Make sure the **Use the following port** radio-button is clicked and select **LPT1: (Recommended Printer Port)** from the pull-down list. Then click **Next**.

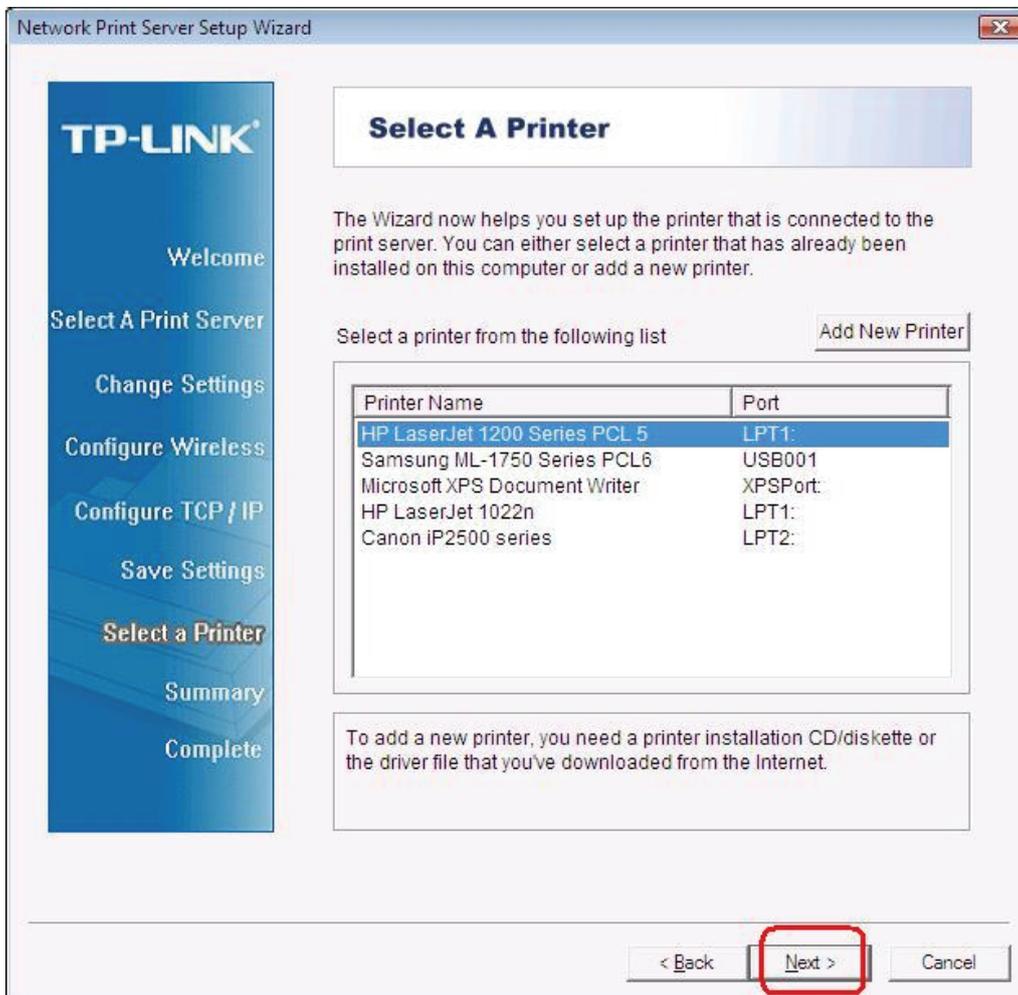


11) Select **Manufacturer** and **Printer** from the lists of printer's driver. Then click **Next**.

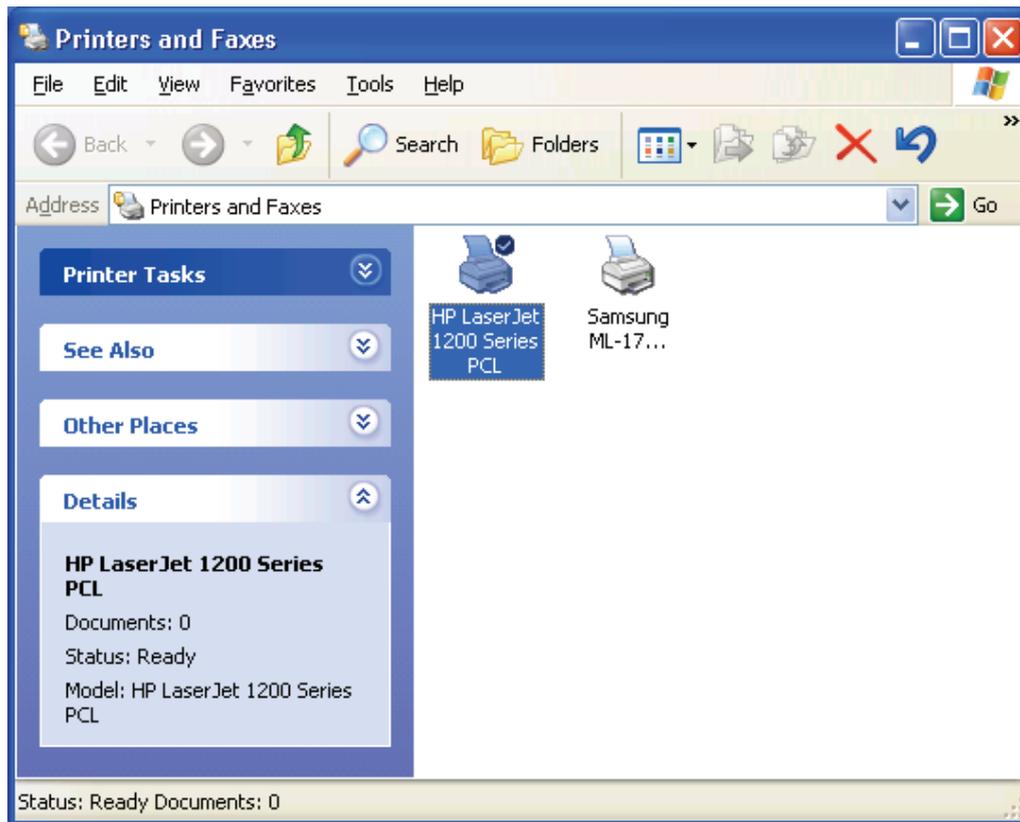


12) If you already have the printer's driver installed, you will be asked whether to keep it or to replace it. Click **Next**. Supply a name for the printer and choose whether you want to make it your default printer. Then click **Next**.

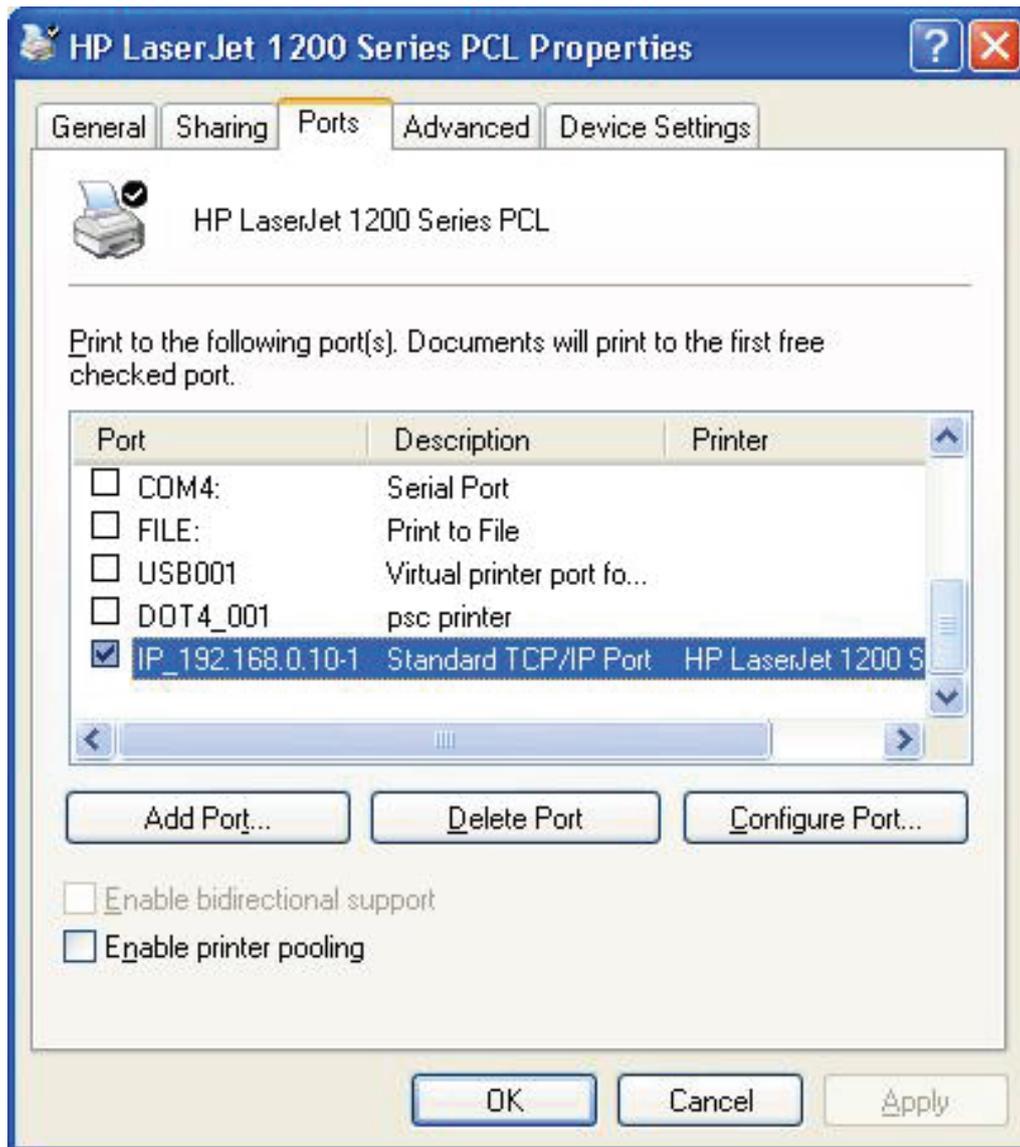
- 13) Then, choose whether you want to share the printer with other network users, print a test page (please select **No.**), etc. Select the appropriate radio-button and click **Next** and **Finish**.
- 14) In the setup wizard, finish the installation by highlighting the installed printer in the **Select a Printer** list and click **Next**, **Next** -> **Finish**.



- 15) From Windows system, go to **start** -> **Printers and Faxes** and highlight your newly installed printer.



16) Right-click, select **Properties** -> **Ports** and verify that the print server's port appears.



17) Go to **General**; click **Print Test Page** to verify the configuration.

18) Done.

Note:

If you wish to install more print servers, start setup wizard from your Windows Start menu: **start -> All Programs -> Network Print Server -> PSWzard** and repeat the installation procedure.

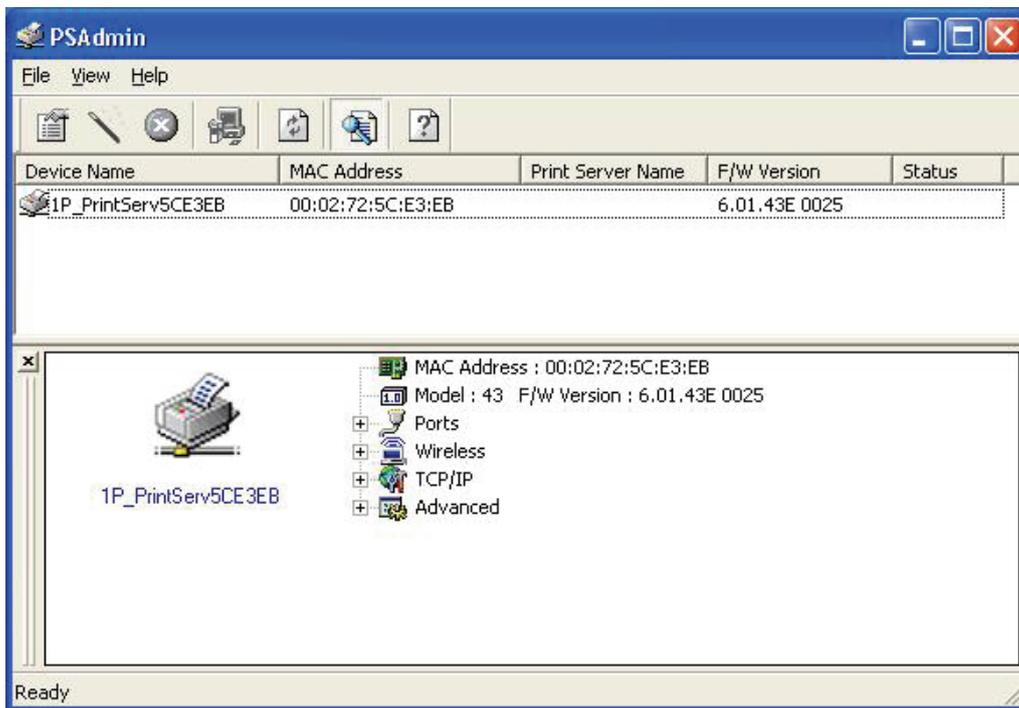
4.3 How to create print server port manually?

- 1) From your Windows Start menu: **start -> All Programs -> Accessories -> System Tools -> Control Panel -> Hardware and Sound -> Printers**.
- 2) Find your installed printer icon, right-click, select **Properties -> Ports -> Add Port -> Standard TCP/IP Port -> New Port -> Next**.
- 3) Input the exact IP address of print server that you configured it. Click **Next**.

- 4) Select **Custom**, and click **Settings**.
- 5) Choose **LPR**, and input the queue name as **lp1**.
- 6) Click **OK** -> **Next** -> **Finish**, to complete the wizard.
- 7) Click **Close** -> **Apply**.
- 8) Now, the print server port has been created.

4.4 Using PSAdmin

After the software of setup CD is successfully installed, starts PSAdmin utility from your Windows Start menu: **start -> All Programs -> Network Print Server -> PSAdmin**. The screen will then appear as follow picture.



All print server(s) on the WLAN will be displayed along with their respective device name, MAC Address, print server name, firmware version, and status. The terms are defined as follows:

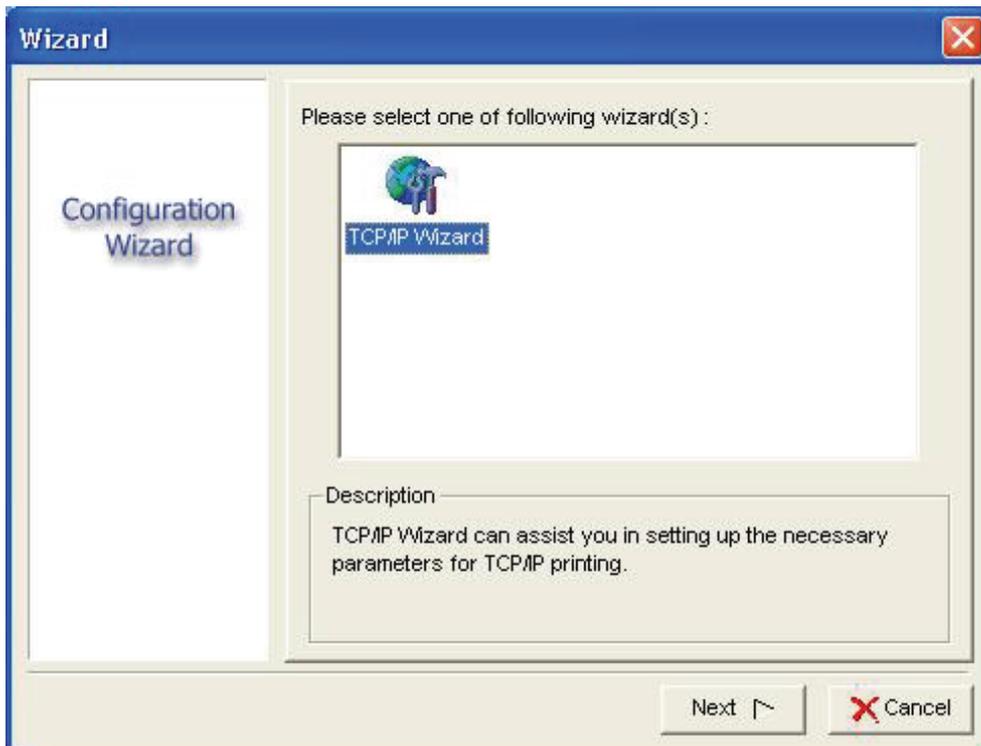
- **Device Name:** The name of the print server hardware used for identification purposes.
- **MAC Address:** The Ethernet address of the print server.
- **Version:** The firmware version of the print server.
- **Status:** Connected printer's status presently.

4.5 Wizard

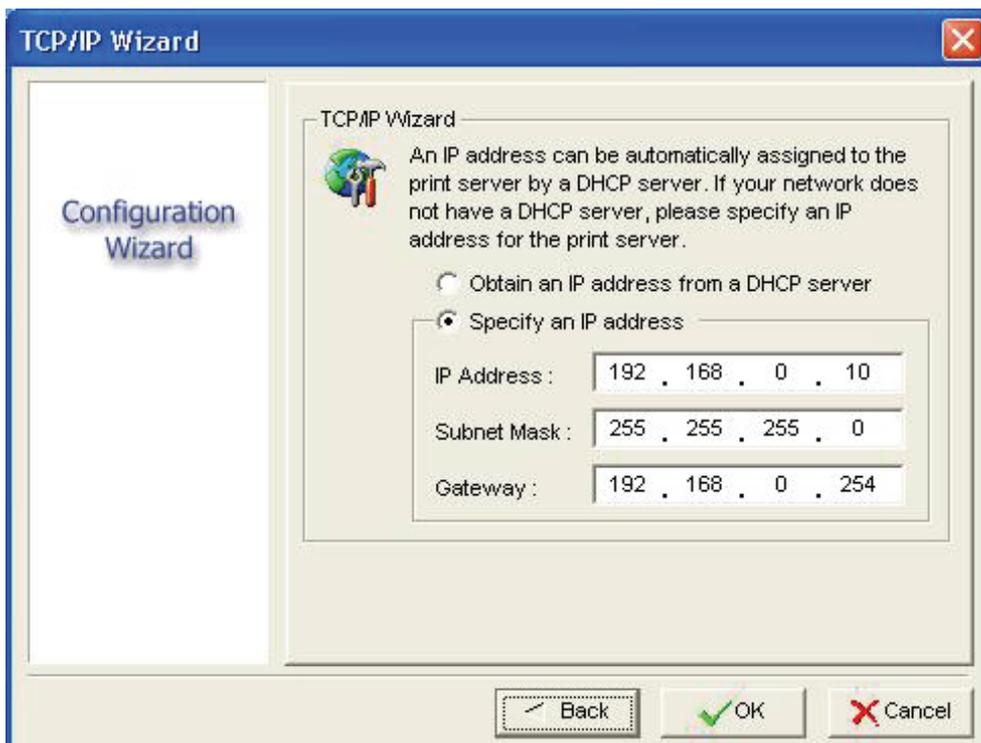
Wizard is a configuration program that can assist you in setting up the necessary parameters for your print server device to function. Setup a print server by using Wizard.

TCP/IP Wizard

- 1) Click **Wizard** button just like a picture .and select **TCP/IP Wizard**.



- 2) Select “**Obtain an IP address from DHCP server**”. If there is a DHCP server on your network. This option allows the print server to obtain IP-related settings automatically from your DHCP server. This setting, by default, is disabled. If you would like to manually specify an IP address to the device, please skip to the following step.
- 3) In the IP Address option, type an IP address for the print server. The IP address must meet the IP addressing requirements of the network segment.



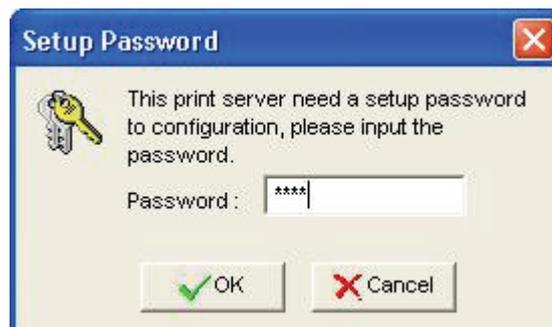
- 4) (Optional) In the **Subnet Mask** option, type the Subnet Mask your LAN or network segment is currently configured to use.
- 5) (Optional) In the **Gateway** field, type the IP address of gateway.
- 6) When done, click **OK** button. The program will save the above settings into the print server.
- 7) Done

4.6 Manual Setup

Manual Setup is a configuration program designed for more experienced users. Also, all the configurations here can be configure by the WEB management of print server. You can refer to the Chapter 4.

4.6.1 General:

- 1) Select the print server that you wish to configure.
- 2) Click **Properties** in the tool bar and the following screen will appear, **Properties** button just like a picture , as follow picture: (The factory default password is **0000**.)

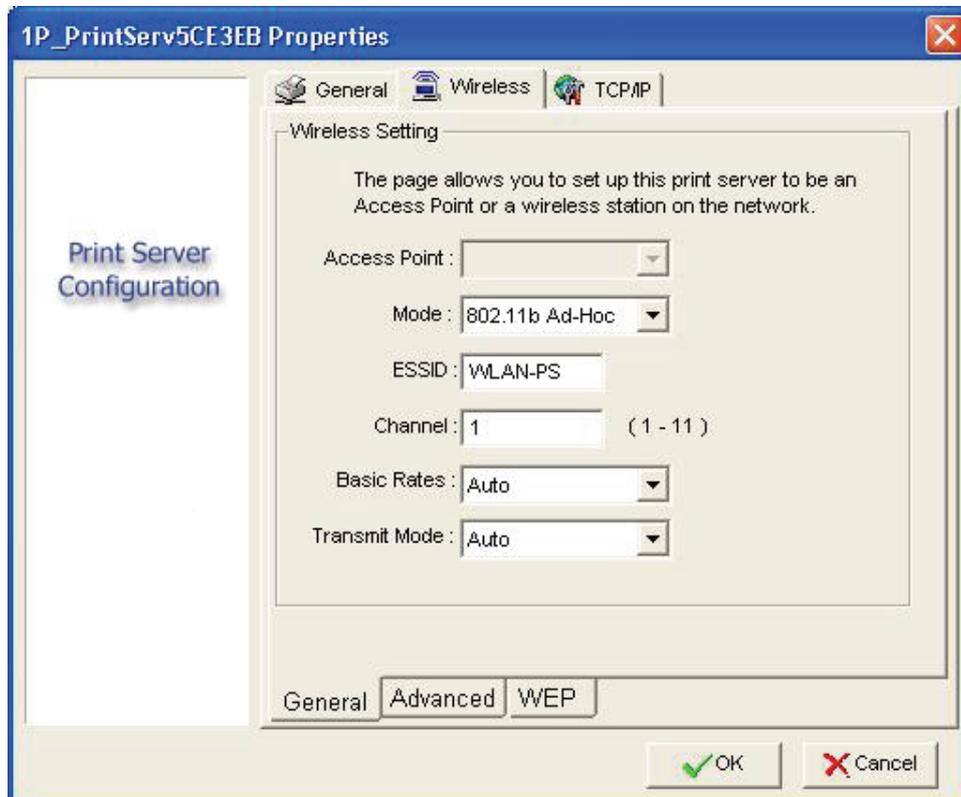


Then, user can change the print server's device name and password. The factory default password is **0000**.



4.6.2 Wireless:

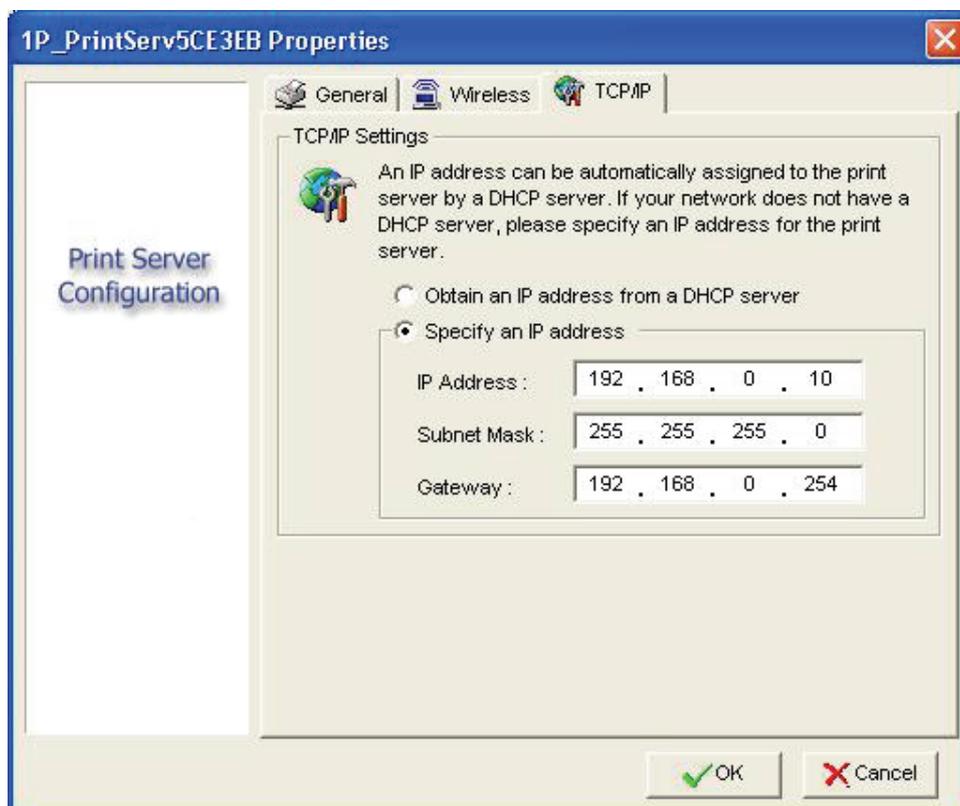
User can change the print server's wireless settings and security to match his current wireless network.



4.6.3 TCP/IP:

User can change the print server's IP address. Default is **192.168.0.10/255.255.255.0**.

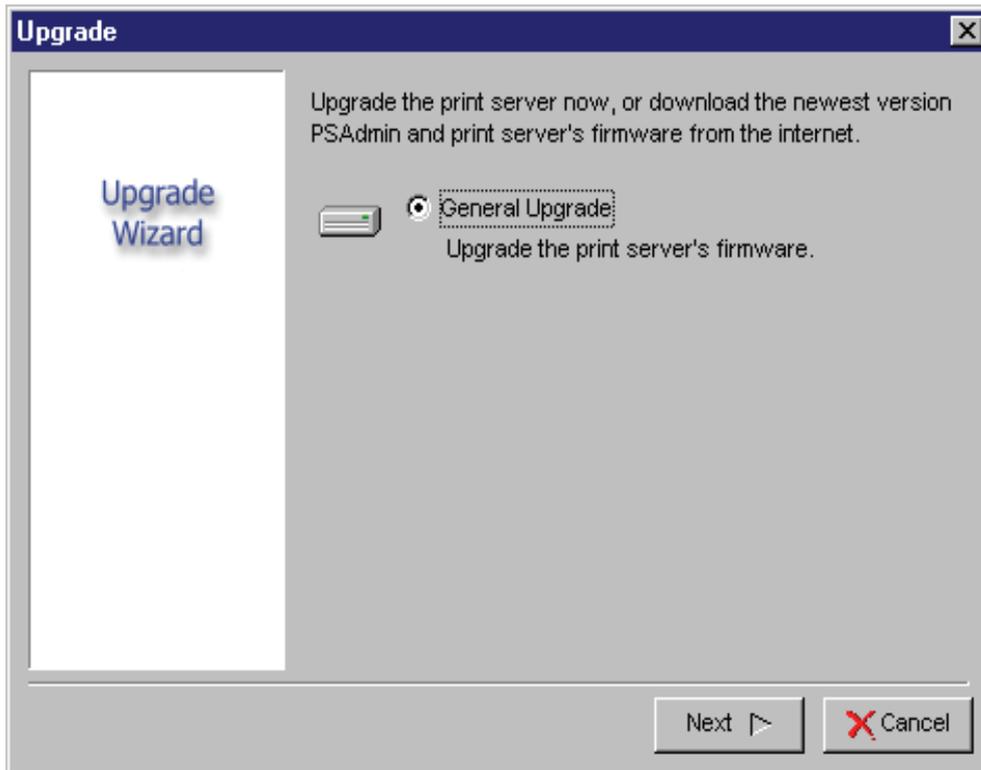
We highly recommend specifying a **fixed** IP address for the print server



4.7 Upgrade

Upgrade allows the user to upgrade the print server device. In order to upgrade the unit please perform the steps as follows:

- 1) Click **Upgrade** button just like a picture , as shown as follow picture



- 2) Select **General Upgrade**. Make sure that the upgrade file(mps43.bin) is located in the same directory as PSAdmin.

4.8 Reset

- 1) Click **Reset** button just like a picture <  > .
- 2) Reset allows the user to reset the print server device in order to establish a new connection or for new settings to take effect.

4.9 Refresh

- 1) Click **Refresh** button just like a picture <  > .
- 2) Refresh searches all attached print server(s).

Chapter 5. Configuration from Embedded Web Server

5.1 Overview

The Print Server contains an embedded web server that can be accessed through a supported web browser on a WLAN, for example, IE6, Firefox or above is recommended.

The embedded web server provides access to configuration and management pages for the print server and the connected peripheral device.

5.2 Using Embedded Web Server

Before you can use the embedded web server, the print server must be configured with an proper IP address. There are many ways to configure the print server's IP address. For example, the Windows-based of PSAdmin utility can easily set an IP address with the print server, please refer to the chapter 3.

Once you have finished the IP address configuration with print server. You should use web browser to manage the print server.

Preparation

Enter the print server's IP address in the Address field of your Web browser. Press Enter. Then the print server page will appear. From here you can configure all print server settings.

Setup Menu

Meanwhile, you have finished the IP address configuration with print server. You should use web browser to configure the print server. The setup menu of the print server helps administrator to setup the print server.

Preparation

Enter the IP address of the print server as the URL.

Factory default IP address: **192.168.0.10**

User Name: **admin**

Password: **0000**



5.3 Status Menu

Once you have finished the IP address configuration with print server. You should be use web browser to view and manage the print server.

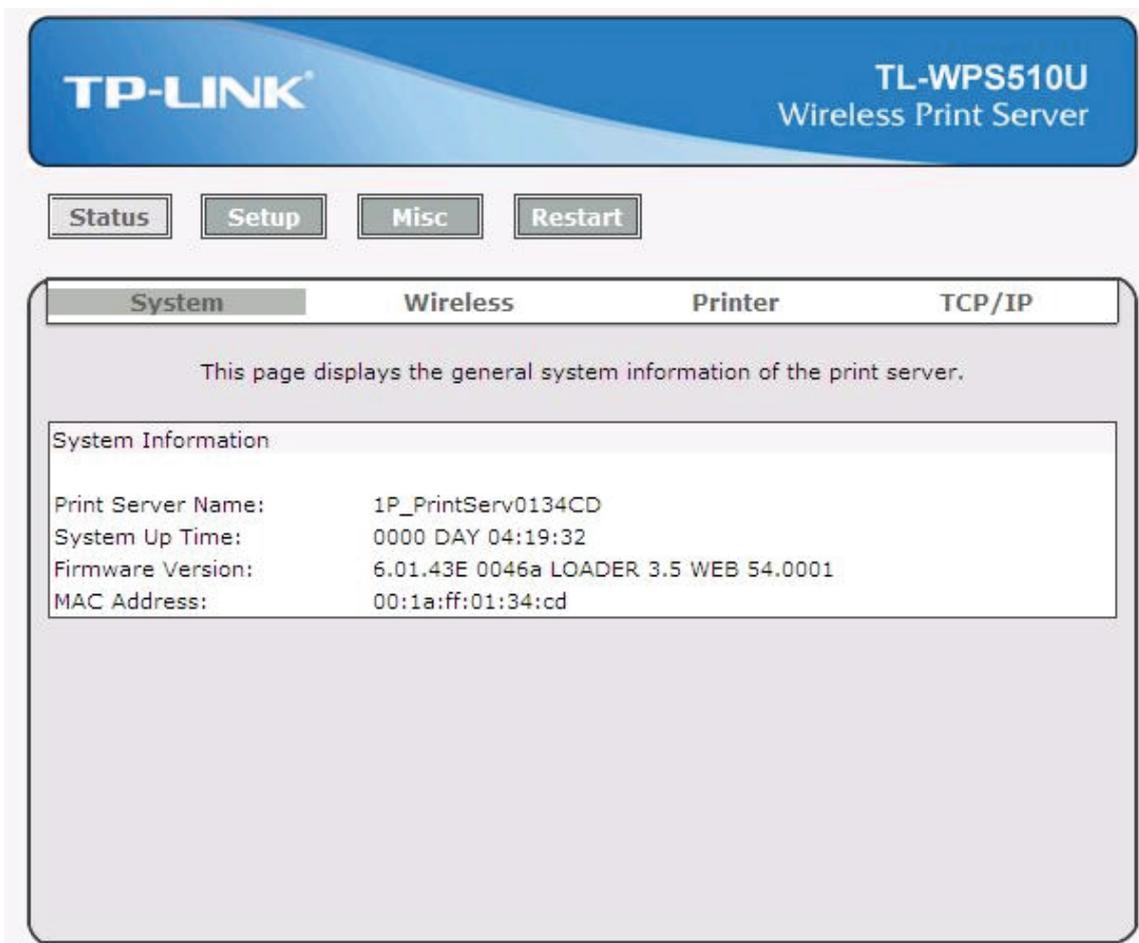
Preparation

Enter the print server's IP address in the Address field of your Web browser. Press Enter. Then the print server page will appear. From here you can configure all print server settings.

Please follow this information in the status menu of the print server:

5.3.1 System Status

- 1) Click **Status**, it then appears the sub-menu.
- 2) Click **System**, it then as shown in the following picture.

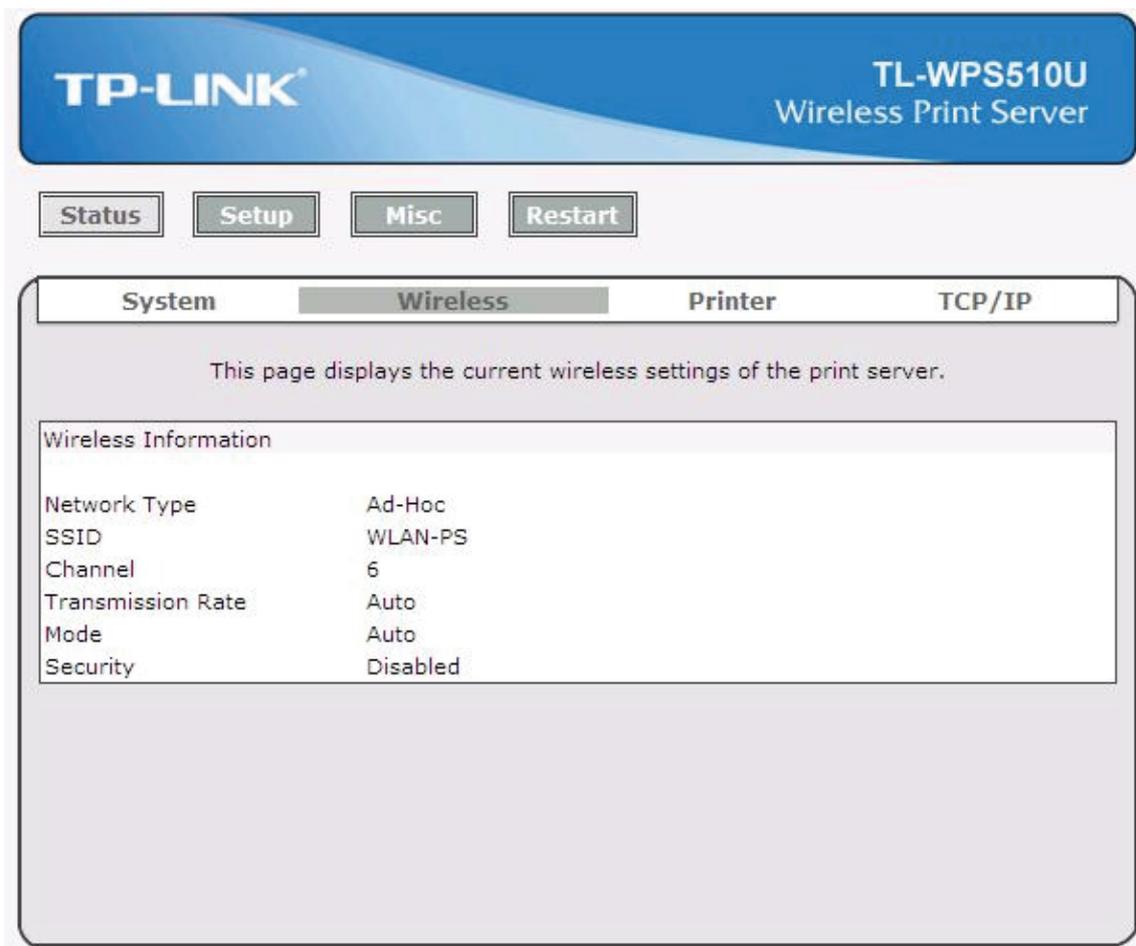


- **Print Server Name:** This option allows you to view device name of the print server. To correct the print server's device name.
- **System Up Time:** This option allows you to view uptime of the print server. When you start the print server, it will compute the print server from start time to power off time.

- **Firmware Version:** This option allows you to view firmware version of the print server. To verify the print server's firmware version is newer in this time.
- **MAC Address:** This option allows you to view Node ID of the print server. The Node ID is unique from any print server.

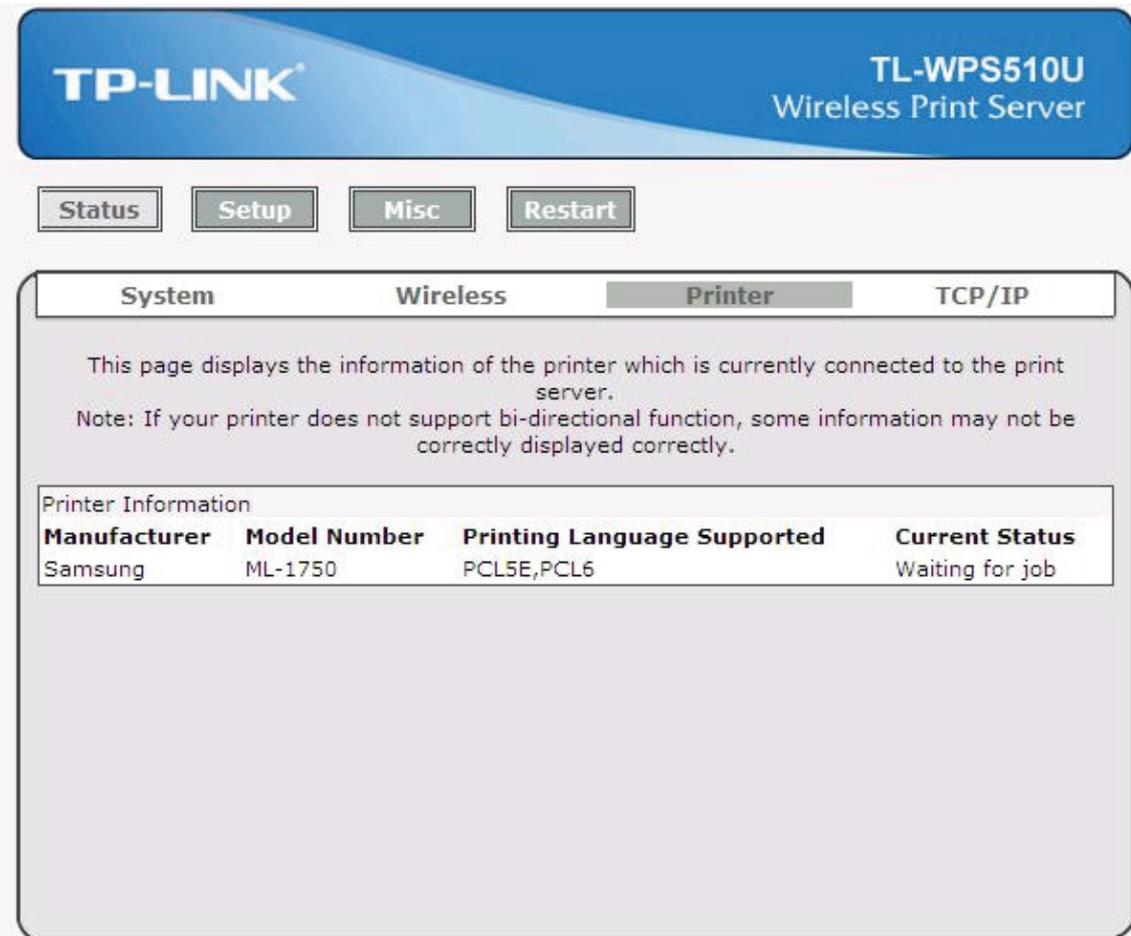
5.3.2 Wireless Status

- 1) Click **Status**, it then appears the sub-menu.
- 2) Click **Wireless**, it then as shown in the following picture about the current wireless settings.



5.3.3 Printer Status

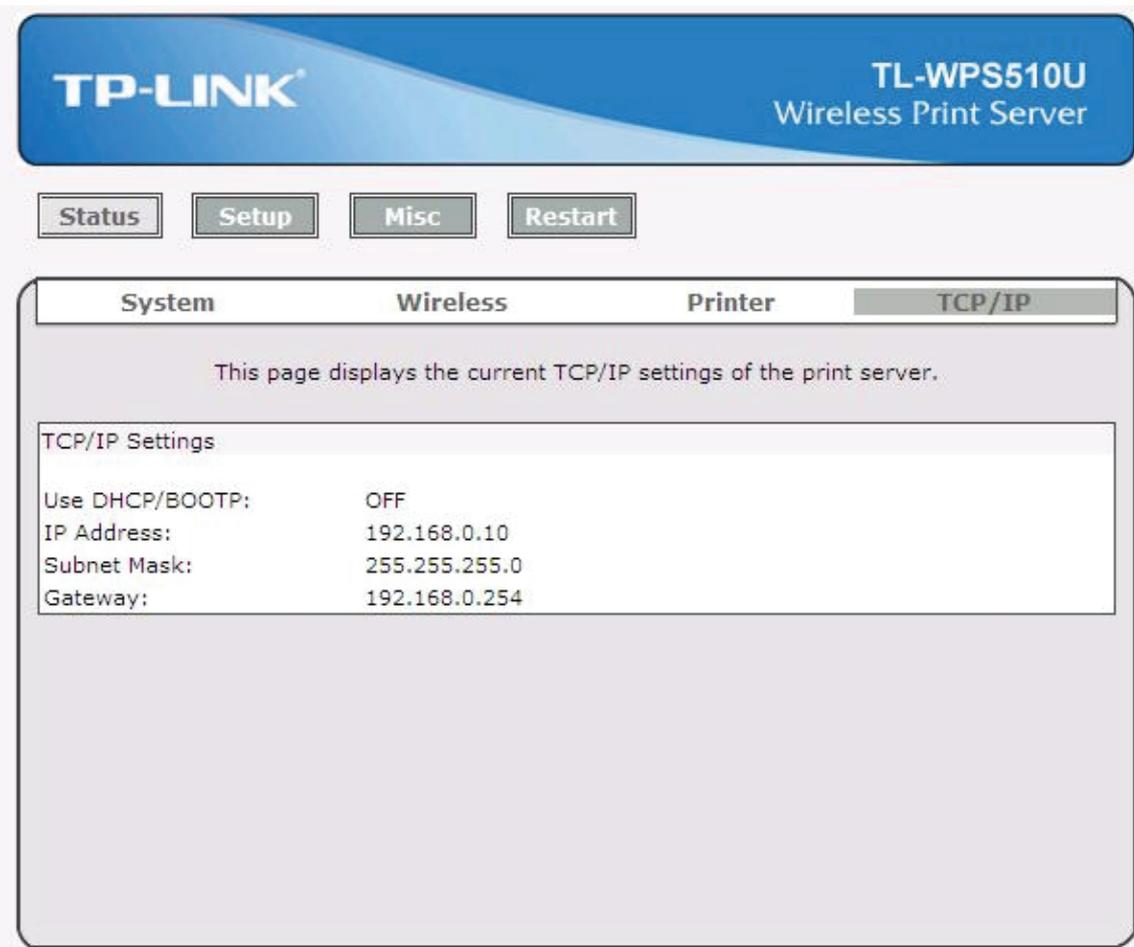
- 1) Click **Status**, it then appears the sub-menu.
- 2) Click **Printer**, it then as shown in the following picture.



- **Manufacturer:** This option allows you to view manufacturer of the printer. When the printer connected with the print server, it will be show in the manufacture box.
- **Model Number:** This option allows you to view model of the printer. When the printer connected with the print server, it will be show in the model box.
- **Printing Language Supported:** This option allows you to view command to set the printer. When the printer connected with the print server, it will be show in the command box.
- **Current Status:** This option allows you to view status of the printer. When the printer connected with the print server, it will be show in the status box. For Example: Waiting for job. It is means the printer already to printing.

5.3.4 TCP/IP Status

- 1) Click **Status**, it then appears the sub-menu.
- 2) Click **TCP/IP**, it then as shown in the following picture.



- **Use DHCP/BOOTP:** This option allows you to view DHCP/ BOOTP status. If there is a DHCP/BOOTP server on your network, this option allows the print server to obtain IP-related settings automatically from your DHCP server.
- **IP Address:** This option allows you to view IP address from the print server. The IP address must meet the IP addressing requirements of the network segment. (default: 192.168.0.10)
- **Subnet Mask:** This option allows you to view subnet mask from the print server.
- **Gateway:** This option allows you to view gateway from the print server.

5.4 Setup Menu

Meanwhile, you have finished the IP address configuration with print server. You should use web browser to configure the print server. The setup menu of the print server helps administrator to setup the print server.

Preparation

Enter the IP address of the print server as the URL, default: 192.168.0.10. Then the print server's home page will appear in content of the web browser.

Please follow this information in the setup menu of the print server:

5.4.1 System Setup

- 1) Click **Setup**, it then appears the sub-menu.
- 2) Click **System**, it then as shown in the following picture.

The screenshot displays the web interface for the TP-LINK TL-WPS510U Wireless Print Server. At the top, there is a blue header with the TP-LINK logo on the left and the model name 'TL-WPS510U Wireless Print Server' on the right. Below the header, there are four navigation buttons: 'Status', 'Setup', 'Misc', and 'Restart'. The 'Setup' button is selected, and a sub-menu is visible with three options: 'System', 'Wireless', and 'TCP/IP'. The 'System' option is currently selected. The main content area contains the following sections:

- A descriptive text: "This setup page allows you to configure general system settings of the print server."
- A section titled "System Settings" containing a text input field for "Print Server Name" with the value "1P_PrintServ0134CD".
- A section titled "Administrator's Password" containing three text input fields: "Account" with the value "admin", "Password" with four dots, and "Re-type Password" with four dots.
- A "Save & Restart" button at the bottom center.

- **Print Server Name:** This option allows you to input device name of the print server. To correct the print server's device name.
- **Password:** This option allows you to change password of the print server. Factory default is **0000**. (default user name is **admin**, it's not available to change)

5.4.2 Wireless Setup:

- 1) Click **Setup**, it then appears the sub-menu.
- 2) Click **Wireless**, it then as shown in the following picture.

TP-LINK
TL-WPS510U
Wireless Print Server

Status
Setup
Misc
Restart

System
Wireless
TCP/IP

This setup page allows you to configure wireless settings of the print server.

Basic Settings

Network Type : Infrastructure ▼

SSID : WLAN-PS

Channel : 6 ▼

Transmission Rate : Automatic ▼

Wireless Mode : Mixed Mode G-Only Mode

Advanced Settings

Security Type Disable
 WEP

Key Index : 1 2 3 4

Encryption Type : 64-bit (10 hex digits) ▼

Key 1 :

Key 2 :

Key 3 :

Key 4 :

Basic Settings:

- **Network Type:** To change the WLAN type to Ad-Hoc(default) or Infrastructure.
- **SSID:** To change the SSID to connect an existing wireless network.(default: WLAN-PS)
- **Channel:** Indicates the channel setting for this print server.
- **Transmission Rate:** Select the basic transfer rates based on the speed of wireless network.
- **Wireless Mode:** Select the WLAN mode based on the existing wireless network

Advanced Settings:

- **Security Type:** To change the wireless security settings based on the existing wireless network. Default setting is Disable.

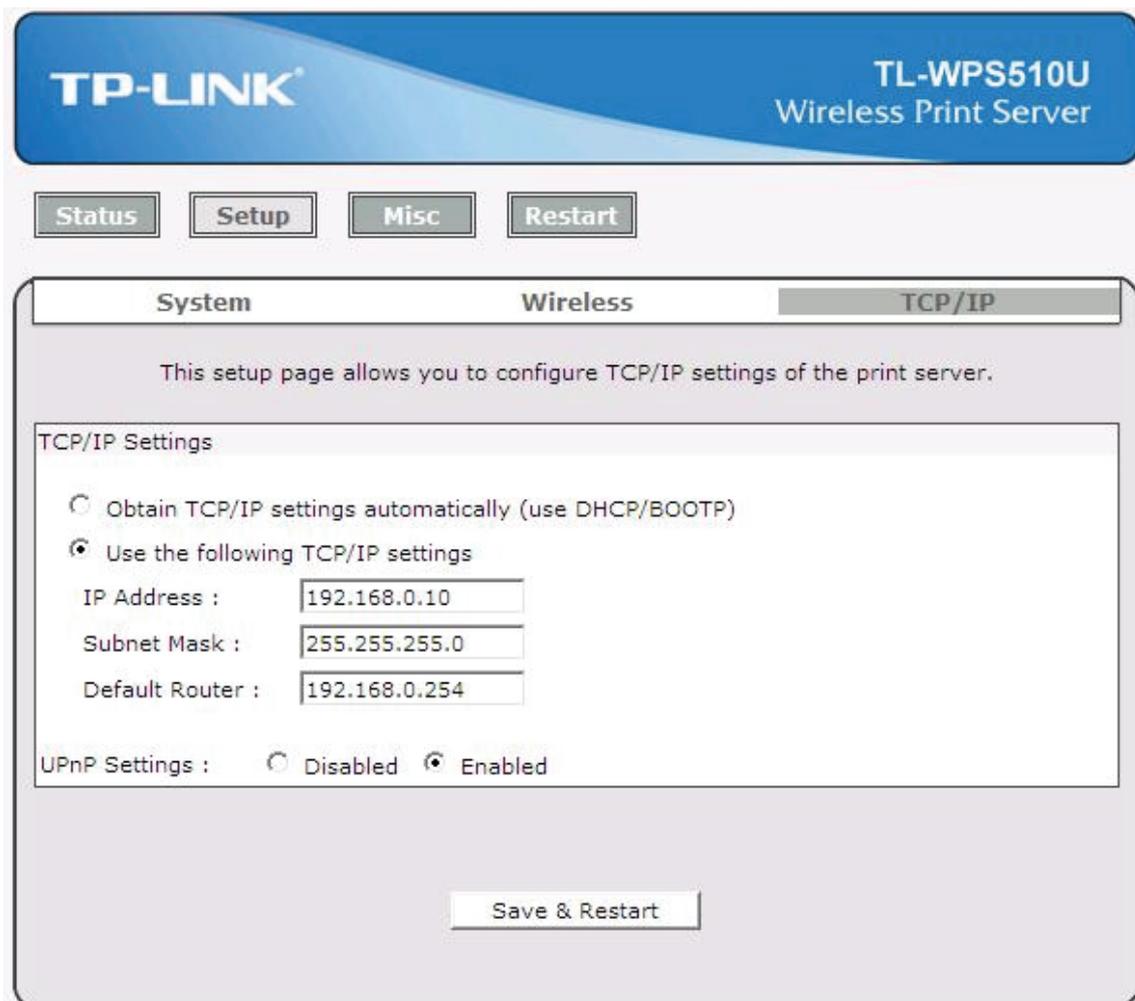
The print server provides three kind of security settings: WEP (64/128bit), WPA (TKIP/AES (CCMP)) and WPA2 (TKIP/AES (CCMP)) to fit an existing security setting of wireless network.

WPA-PSK and WPA2-PSK support Infrastructure mode only.

And the following site survey table will provide a list of existing wireless network. You can choose one to join.

5.4.3 TCP/IP Setup:

- 1) Click **Setup**, it then appears the sub-menu.
- 2) Click **TCP/IP**, it then as shown in the following picture.



- **DHCP/BOOTP:** This option allows you to select DHCP/ BOOTP option. If there is a DHCP/BOOTP server on your network. This option allows the print server to obtain IP-related settings automatically from your DHCP server.
- **IP Address:** This option allows you to input IP address from the print server. The IP address must meet the IP addressing requirements of the network segment.

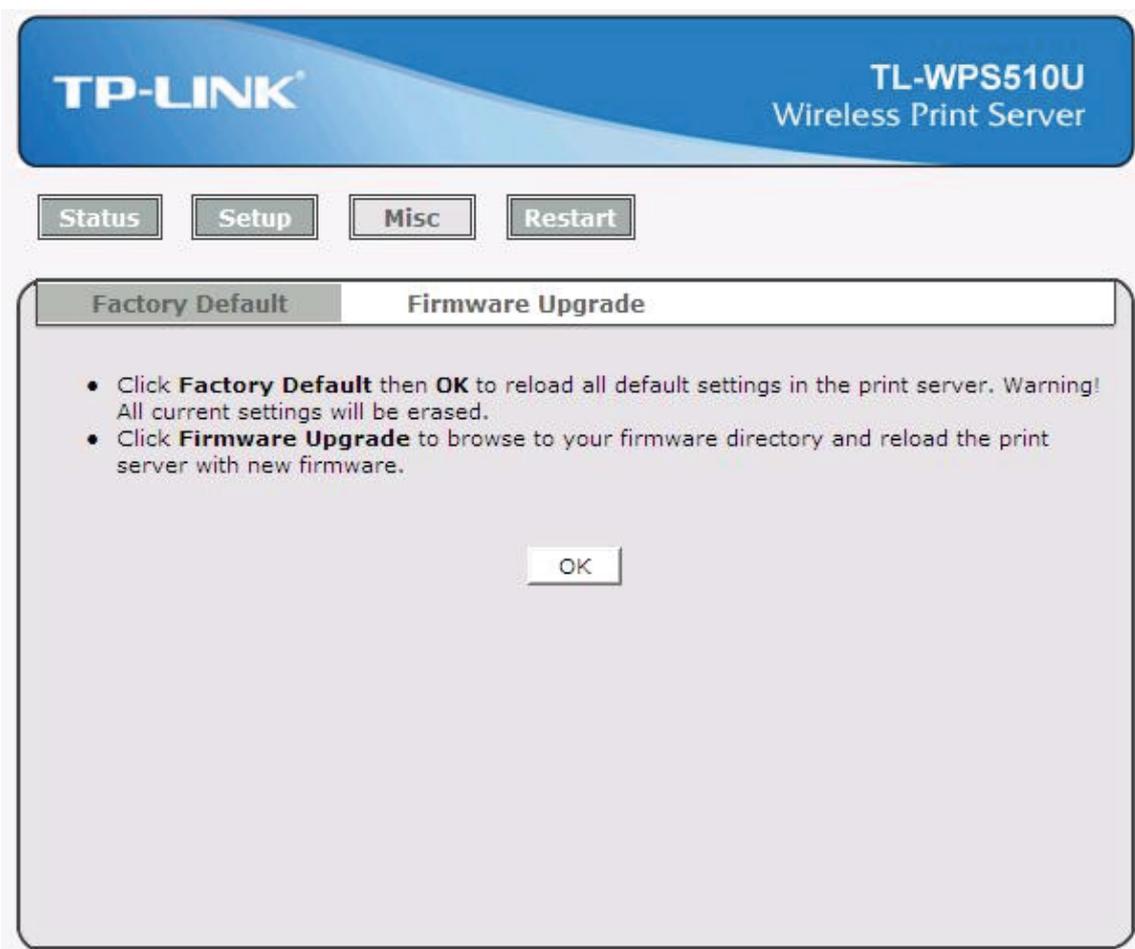
Note:

On the TCP/IP Setup screen, specify a fixed IP address is highly recommended.

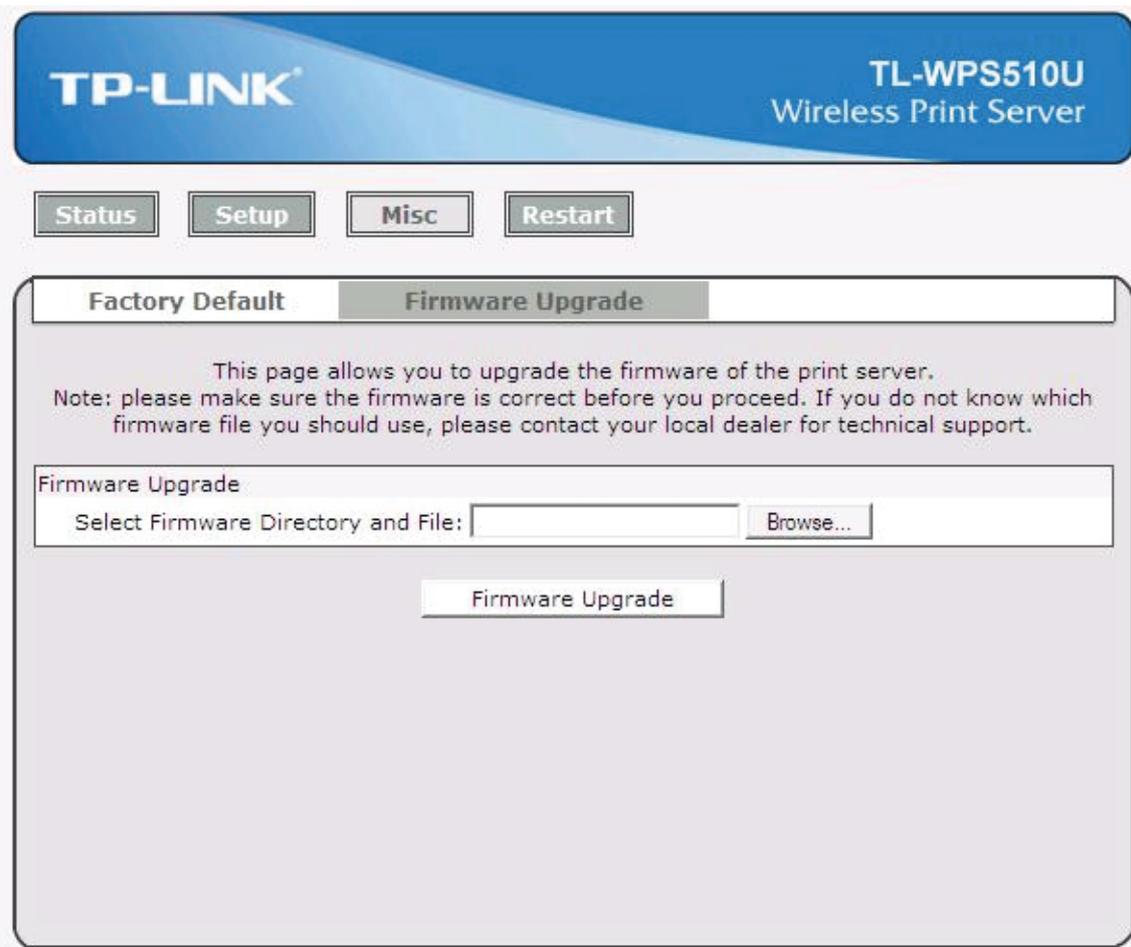
- **Subnet Mask:** This option allows you to input subnet mask from the print server. The IP address must meet the IP addressing requirements of the network segment.
- **Default Router:** This option allows you to input gateway from the print server. This IP address of gateway must meet the router or gateway to go across of the network segment.
- **UPnP Settings:** To Disable/Enable the UPnP support of this print serve

5.5 Misc

- 1) Click **Misc**, it then appears the sub-menu.
- 2) Click **Factory Default**, it can restore the factory default settings to print server. It will erase all previous settings.



- 3) Click **Firmware Upgrade**, it then as shown in the following picture.



- **Firmware Upgrade:** To upgrade your print server with the up-to-date firmware.

5.6 Restart

Click **OK** to reboot the print server.

Status

Setup

Misc

Restart

Restart

This page allows you to restart the print server.

Restart The Print Server

Do you want to save settings and restart the print server now ?

OK

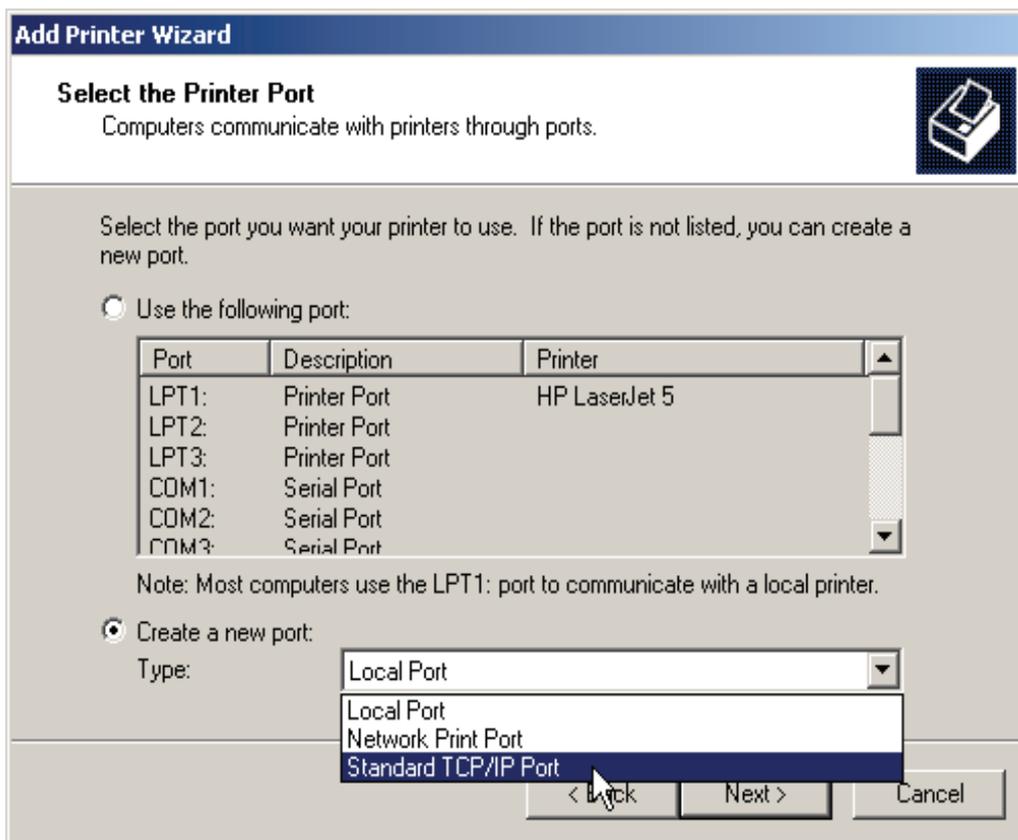
Chapter 6. TCP/IP LPR Port Printing Installation

DHCP

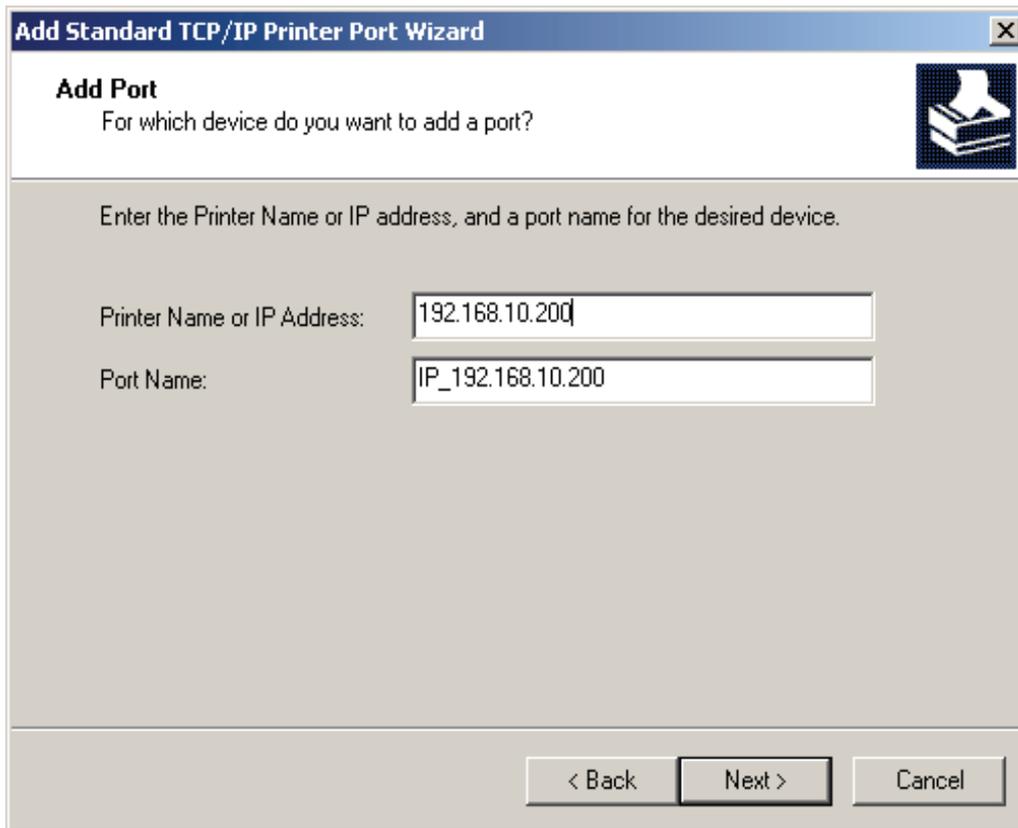
The print server supports DHCP feature, allowing the print server to obtain an IP address and related TCP/IP settings automatically from a DHCP server. While the print server supports DHCP, we strongly recommend you manually specify a **fixed** IP address to the print server. By default, the print server's DHCP function is disabled and the IP address is 192.168.0.10.

6.1 Windows 2000/XP/2003/Vista Standard TCP/IP Port Printing Installation

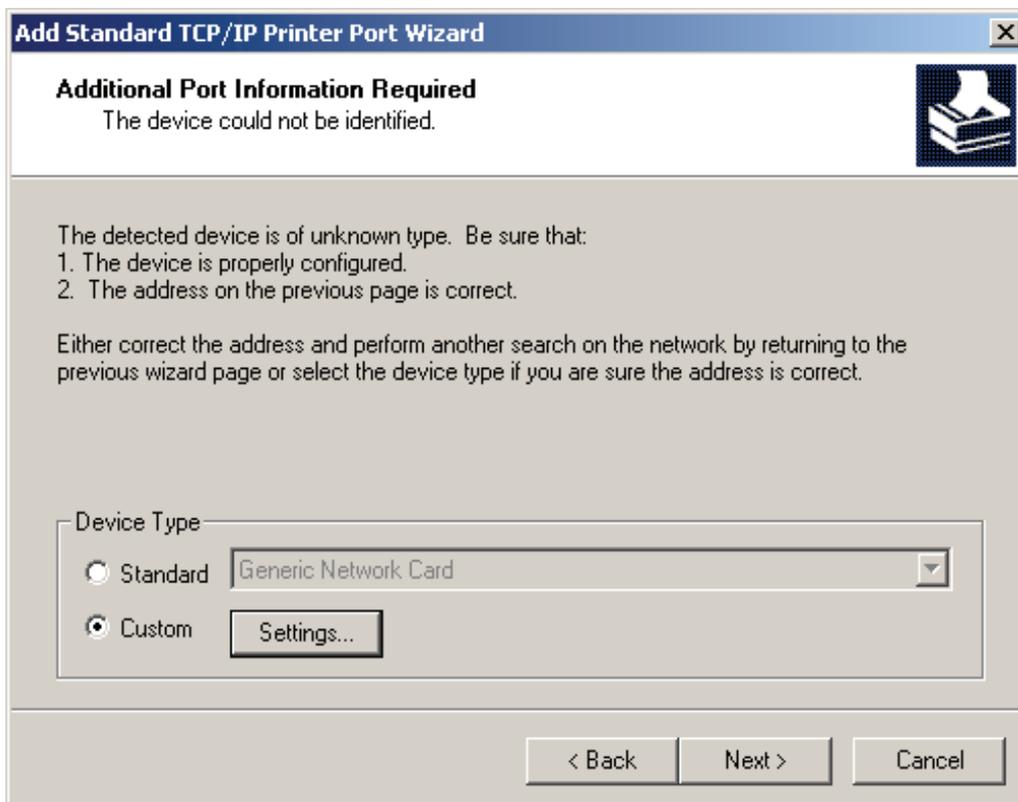
- 1) Click **Start**, point to **Settings**, and select **Printer**.
- 2) Run **Add Printer**, Click **Next**.
- 3) The Add Printer Wizard screen will appear, Select **Local Printer** and click **Next**.
- 4) From the type of **Create a new port** box as shown in the following picture, select the **Standard TCP/IP Port**, Click **Next** and **Next**.



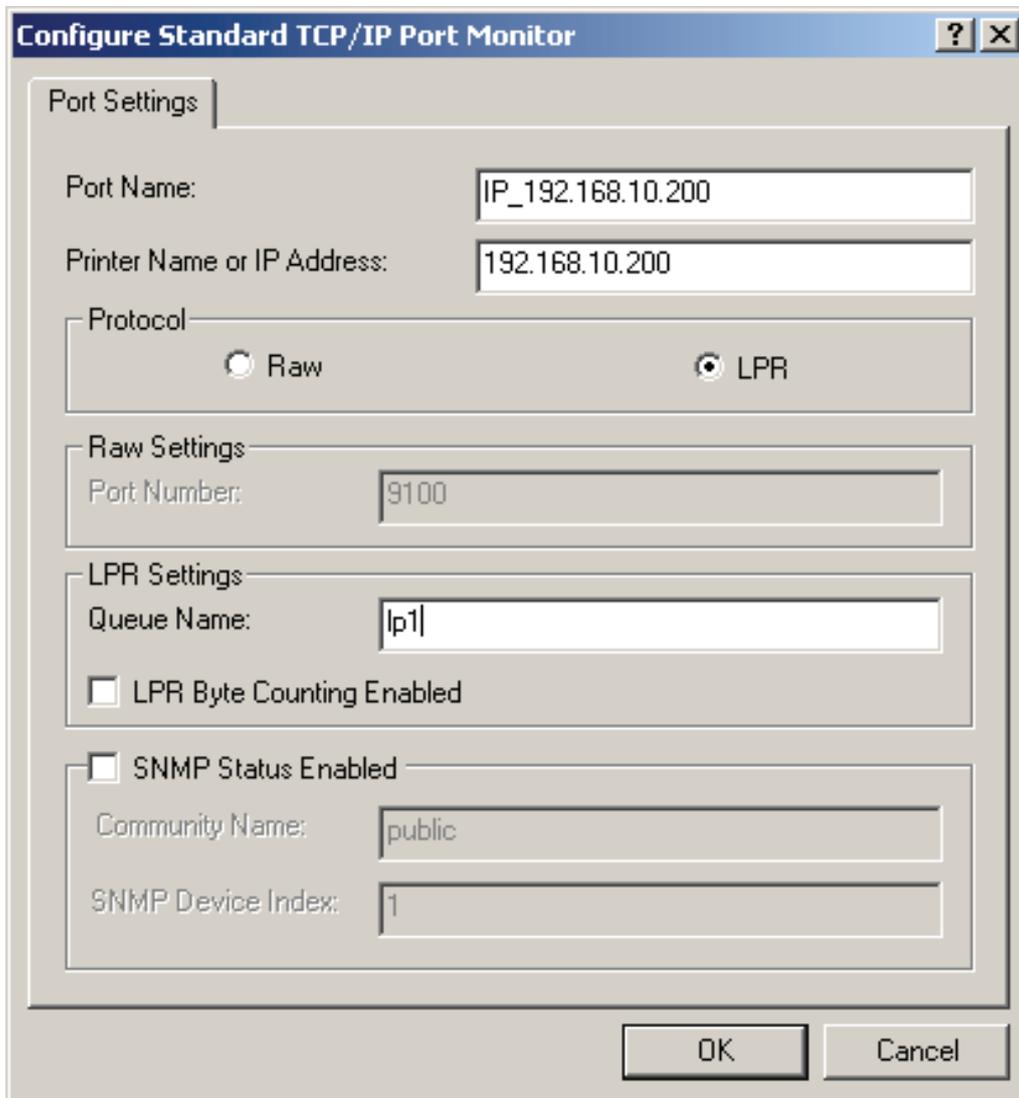
- 5) The Add Standard TCP/IP Printer Port Wizard box will then appear as shown the picture as below, and type in the IP address assigned to the print server in the **Printer Name or IP Address** box, Click **Next**.



- 6) In the **Add Standard TCP/IP Printer Port Wizard** box as shown in the following picture, Select **Custom**, Click **Settings** button, and click **Next**.



- 7) In the **Configure Standard TCP/IP Port Monitor** box as shown in the following picture, select **LPR** form Protocol, type in a queue name: **lp1**.
- 8) Click **OK**, and **Next**.

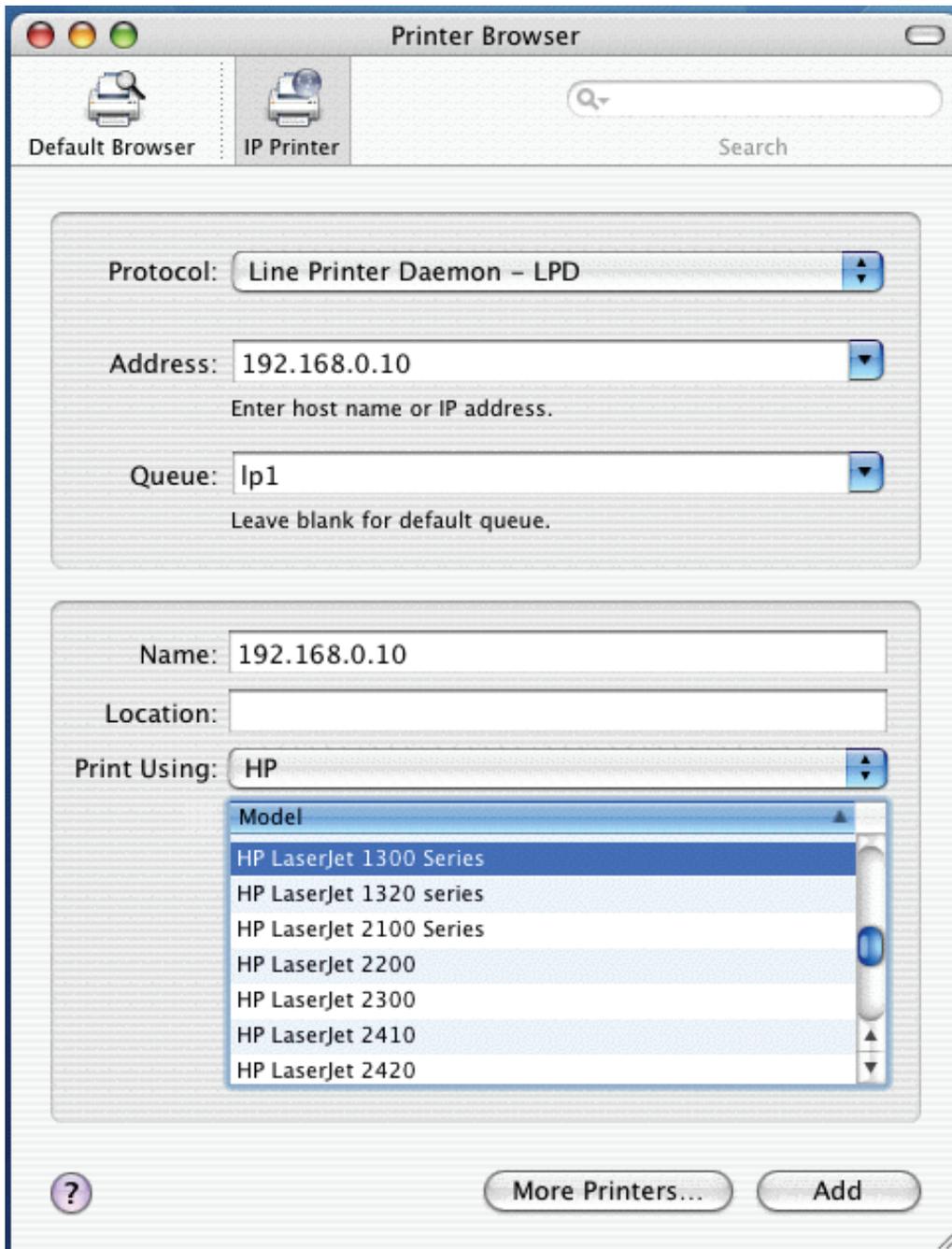


- 9) Click **Finish**.
- 10) Select the appropriate printer manufacturer and printer type list and click **Next**.
- 11) Type in a new **Printer name** or leave it in default, and click **Next** button.
- 12) A message reading, “To confirm that the printer is installed properly, you can print a test page”. Select **Yes (Recommended)** and click **Finish**.
- 13) Done.

6.2 Mac OS 10.4 and Linux LPR/LPD Installation

For LPD printing application in Mac OS X 10.4.x

- 1) From the **Printer Setup Utility**, click **Add**.
- 2) Click **IP Printer** and select **Line Printer Daemon – LPD**.
- 3) Input the **IP address** of print server and the **Queue** name: lp1.
- 4) Choose a proper printer model from the **Print Using**. Then click **Add**.



6.3 Redhat Linux 9/Fedora Core

The Print Server can work under any Linux-based systems, including Slackware, RedHat, etc, without any problems.

Basically, the Linux's printing system is based on BSD system. Although many commercial Linux systems are available in the market and their commands will vary slightly, depending upon which version is used, the functionality of the Linux-based variants is exactly the same.

Following are the outlined procedures (**recommended for all users**) on Red Hat Linux or later with X-Window system installed.

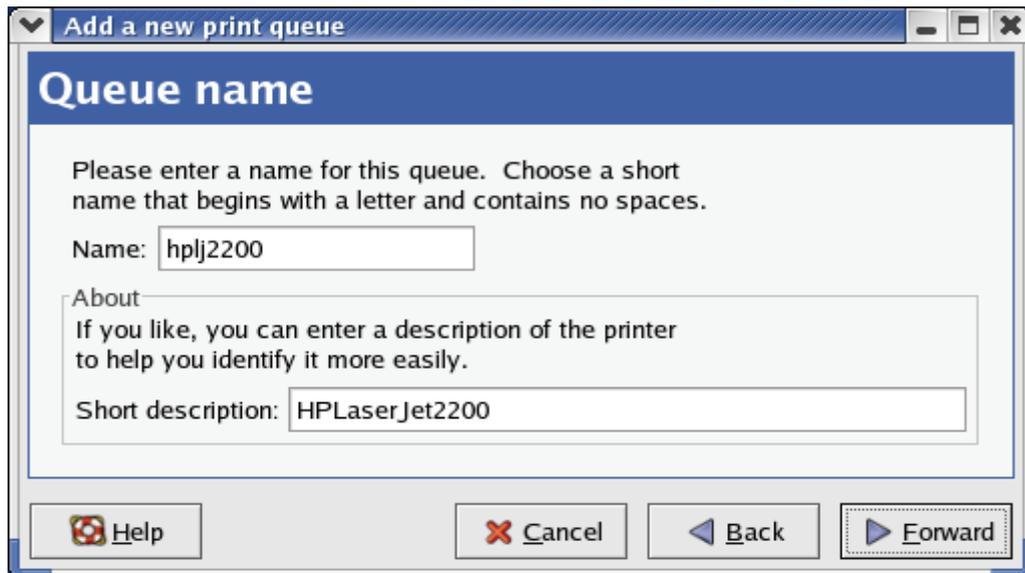
- 1) Make sure that the TCP/IP is well configured on your RedHat system, including network interface card's driver and IP-related settings say, IP address, subnet mask, and gateway IP).
- 2) Log in **root**.
- 3) Start X-windows by typing **startx** at the shell mode.
- 4) Open **Printer Configuration**.



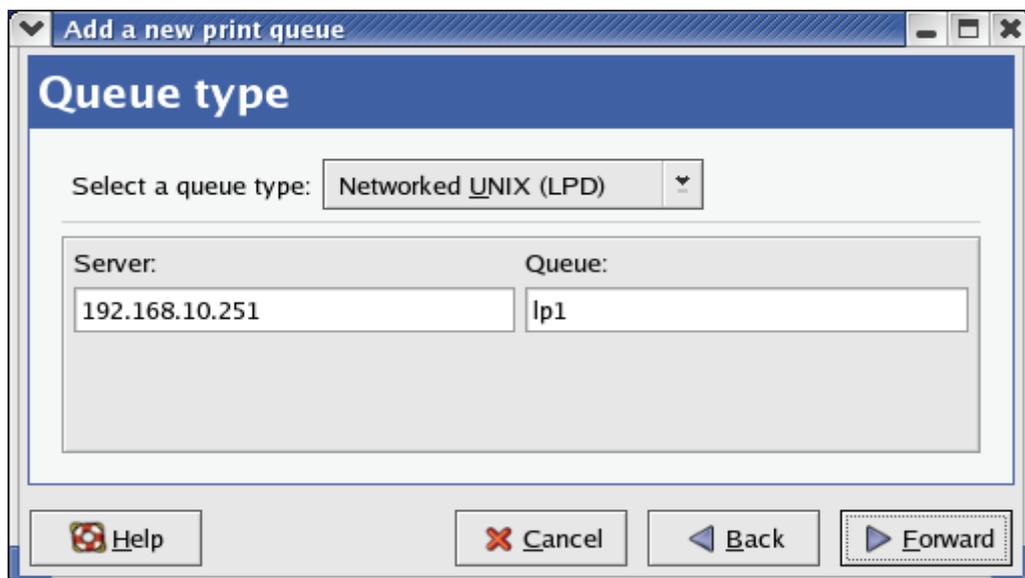
- 5) Click **New** button.



- 6) Click **Forward** button.



7) In the **Name** field, type a user-defined name, click **Forward**.



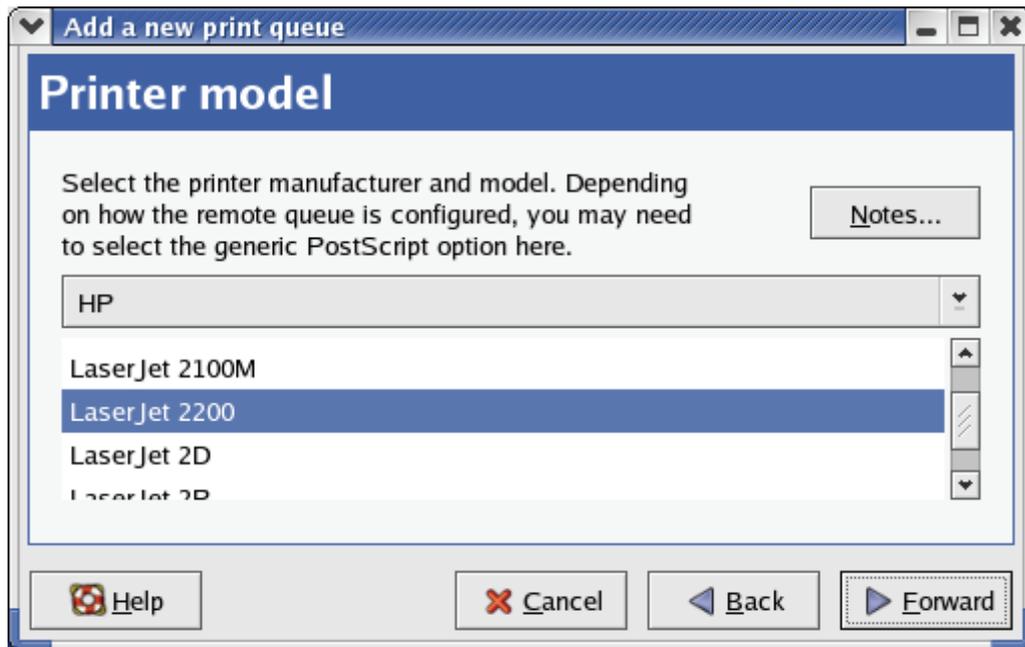
8) In the **Queue Type** field, choose **Networked UNIX**.

9) In the **Server** field, type the IP address of print server

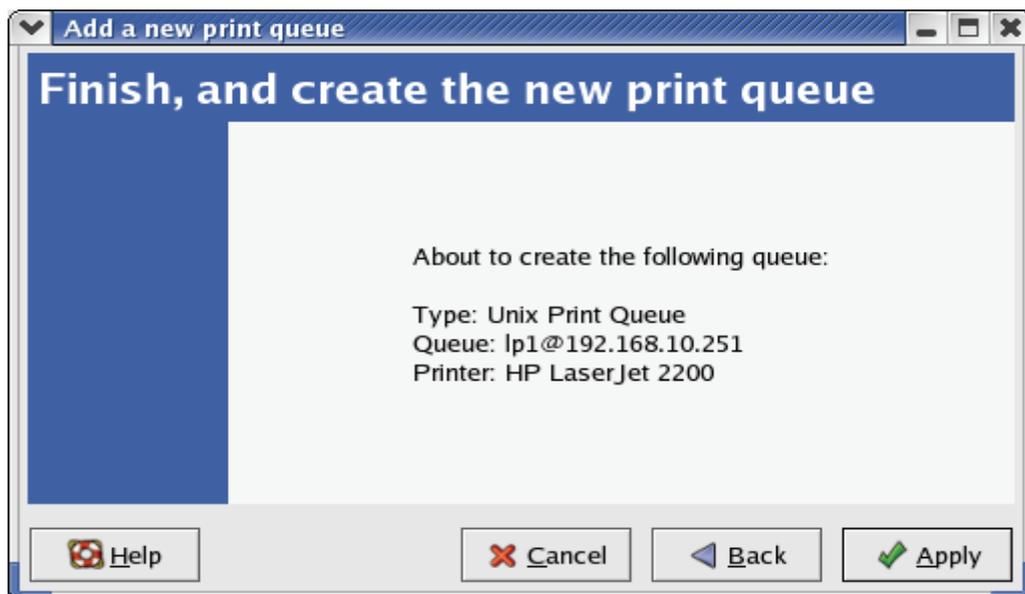
10) In the **Queue** field, type a print server's port name, which connect to the printer. For example: lp1.

11) Click **Forward** button.

12) In the **Printer** field, choose **Postscript Printer**.



13) Choose the model of printer and click **Forward**.



14) Done.

Chapter 7. Upgrading Print Server

7.1 Overview

Upgrading print server will allow you to upgrade its firmware inside the print server while the newer software version of the print server is available from your local dealer. Depending on the different systems users might use, this chapter is divided into several Sections; please refer to the following lists for your systems.

1. Upgrading the print server from PSAdmin

2. Upgrading the print server from command prompt

3. Upgrading the print server from WEB browser

Note:

- 1) Before you proceed to upgrade the print server, please ensure that the necessary binary file is located on your current working directory.
- 2) Before upgrading the print server, ensure that it is not printing jobs. You have to wait until the print job is finished before you can proceed.
- 3) Be careful not to interrupt the file transfer. If the transfer is interrupted, the print server may have to be re-initialized by your dealer.

7.2 Upgrading the print server from PSAdmin

- 1) Ensure binary file is located in the PSAdmin directory.
- 2) Run **PSAdmin** from your Windows-based computer.
- 3) Click the **Upgrade** icon on tool bar.

7.3 Upgrading the print server from command prompt

- 1) Ensure binary file is located in your current working directory.
- 2) At command prompt, and type "**tftp -i <print server's IP address> put mpsXX.bin**".
- 3) Wait for the transfer successful message.
- 4) Done.

7.4 Upgrading the print server from Browser

- 1) Ensure binary file is located in your local drive.
- 2) Enter the IP address of the print server as the URL. Default is 192.168.0.10
- 3) Click **Misc**, and then choose **Firmware Upgrade**.
- 4) Click **Browse...** and select the firmware file.
- 5) Click **Firmware Upgrade** button.
- 6) Done.

Chapter 8. Troubleshooting

General Troubleshooting Overview

The most common problems, which cause the print server to perform improperly, are covered in this chapter. If a problem still exists after reading this chapter, please contact your dealer for technical support.

1) LED Light Indicators

The print server is equipped with LED lights to assist in diagnosing problems that are the result of the network and/or the print server hardware itself.

Power (Red)

When the print server unit is powered on, the **Power** LED will be turned on. This indicates that the print server hardware is properly configured.

Wireless (Green)

Indicating the linkage and data transmission via wireless connectivity.

2) Power Related Problems

The print server requires an external AC power adapter in order for it to function. If you have a power problem, check to see whether the power cord or its connectors are damaged. More importantly, check to see that the AC power adapter included with the print server matches the AC voltage in your country or area. Using an incorrect AC adapter will damage your print server.

3) Print Port Related Problems

Printing data failure may be caused by a loose connection of the print server to the USB port of the printer. Check to see if any of the pins on the USB port connector are damaged. In addition, check the cable connection. If the pins are damaged, contact your dealer for a replacement connector.

4) TCP/IP Troubleshooting

A. The print server's Node ID you specified in the "arp" command is not correct.

If this is the case, please ensure the Node ID field in the corresponding entry of the print server's IP address in NT's ARP cache table is correct by typing the following command at NT's DOS prompt. "arp -a"

If the Node ID shown on the screen doesn't match the print server's Node ID, please follow the instructions below to reset the entry.

- 1) At NT's DOS prompt, type "arp -d <print server's IP address>" to delete the current entry.
- 2) Type "arp -s <print server's IP> <print server's Node ID>" to specify a new ARP entry.

B. The print server's IP address is duplicated or is as same as another computer's IP address on the network.

If this is the case, please consult your network administrator to obtain an unused IP address for your print server.

Appendix A: Reset Button

Perform a Factory Default:

1. Disconnect the external power adapter.
2. Hold down the reset button.
3. Reconnect the external power adapter. Wait about 15 seconds.
4. Release the reset button.
5. The print server will restart, the POST time needs 40 seconds.

WARNING:

This will erase all settings of print server to default and should be performed with caution!

After performing a factory default, the default settings will be:

- Username: admin
- Password: 0000
- Wireless Mode: Ad-Hoc (Peer-to-Peer)
- Channel: 1
- SSID: WLAN-PS
- IP Address: 192.168.0.10
- Subnet Mask: 255.255.255.0

Appendix B: Frequently Asked Questions

1) Question A:

Print jobs are sent to the print queue successfully, but fail to be sent to the printer.

Possible explanations:

1. The Print server Name/Print Queue configuration is incorrect.
2. The Print server name specified and stored in the print server memory doesn't match the same one.
3. The power adapter connected to the print server is loose or disconnected.
4. The printer is off-line, jammed or out of paper.

Solutions:

1. Check all the information in print port setting.
2. Check all the information of the print server by running PSAdmin.
3. Check to see that if the power adapters are properly connected.
4. Recheck the print server connection by running the PSAdmin.

2) Question B

Print jobs start printing, but print very slowly or print unknown characters.

Possible explanation and solution:

A printer driver is missing or is incompatible with that printer. Using a print driver that is not specific for the printer can cause printing errors. Install the proper printer driver. If these printer drivers are not available to you, please contact your printer manufacturer.

3) Question C

The upgrading process indication bar stops and does not seem to proceed again while upgrading the print server.

Possible Explanation:

There might be a network problem. This causes the upgrading procedure to fail.

Solutions:

- 1) Check the wireless network connection, especially from the workstation running the PSAdmin to the print server unit.
- 2) Upgrade the print server again by PSAdmin or WEB browser.

4) Question D

The setup Wizard can't find print server.

Possible Explanation:

The Personal Firewall installed in your computer blocks the connection.

Solution:

Please disable the Personal Firewall temporarily or adjust the security level to lower.

Appendix C: Additional Installation Instructions

Panasonic KX-P6100/6300/6500

If you are using a Panasonic KX-P6100/6300/6500 laser printer with the print server through the **Network Print Port** under Windows 95/98, please redirect the printer named “**Panasonic KX-P6100 PCL**” or “**Panasonic KX-P6300 PCL**”, or “**Panasonic KX-P6500 PCL**” to the print server through the **Network Print Port**.

DO NOT redirect the printer named “Panasonic KX-P6100 GDI”, “Panasonic KX-P6300 GDI”, or “Panasonic KX-P6500 GDI” to the print server.

Please note that the print server doesn't support printing with host-based printers, e.g. CAPT, GDI, and PPA printers. Furthermore, the print server doesn't support any non-printing functions of MFP (Multiple Function Printer).

In case of static electricity or noise of power cable issue causes print server to disconnect, please re-plug the USB cable or re-start power to connect again.