

HP Jetdirect Wireless Print Servers

Configuration Readme File and additional notes

HP Jetdirect 680n (J6058A), HP Jetdirect 380x (J6061A) and HP Jetdirect: 280m (J6044A)

Last Updated: February 2004

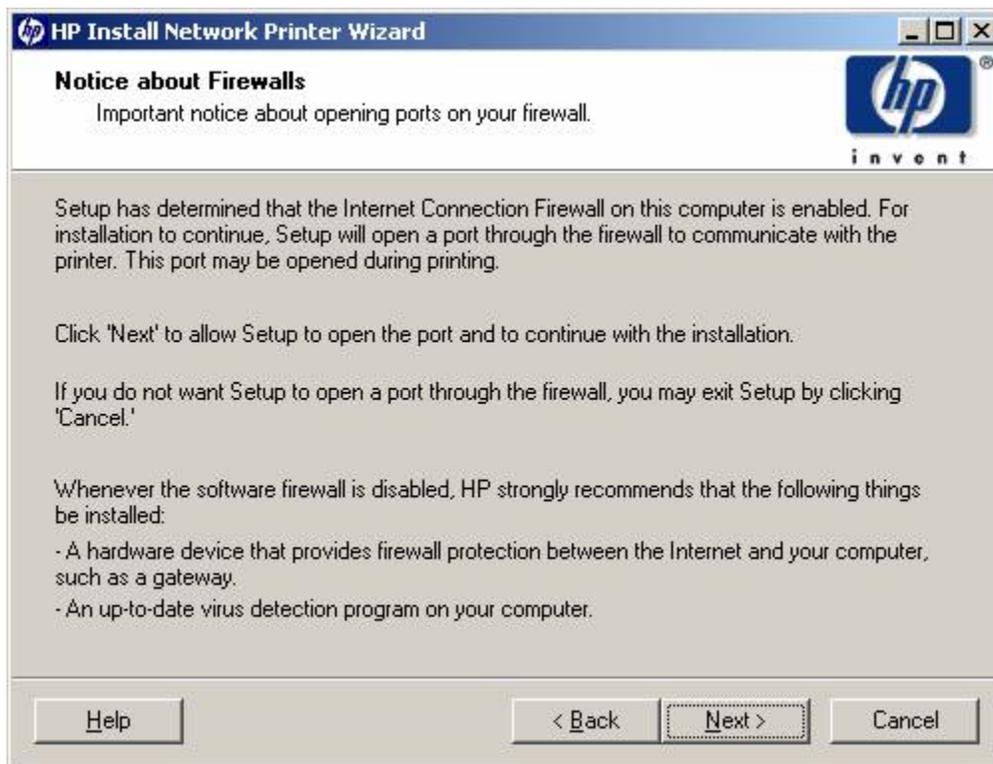
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HP Wireless Setup Wizard

Enhancements in Version 1.06

- Windows XP firewall warning: During discovery of wireless devices, the user may see the screen below when the Windows XP system firewall is enabled. At this point, the user can click on 'Next' to allow the Wireless Setup Wizard to temporarily open a port through the firewall to perform the discovery, or 'Cancel' if the user does not want the Wireless Setup Wizard to go through the firewall.



Note: this screen will ONLY show in reaction to the Windows XP system firewall. If the user has a 3rd-party firewall enabled, device discovery may fail, but the user will not be warned.

Configuration Issues

- Unable to discover a wireless Jetdirect device when using Cisco Aironet 350 wireless PC card on Windows XP

This issue may also be seen on Windows XP with other manufacturers' PC cards that have their own configuration utilities

When using a Cisco Aironet 350 wireless PCCard, the JetDirect Wireless Setup wizard may be unable to automatically switch the card to the required Ad Hoc settings (SSID= hpsetup; no encryption) when the latest Cisco Aironet Client Utility (ACU) is installed. This is because the ACU has a setting that lets the user specify whether to use the Cisco utility to select a wireless profile or to 'Use another utility'. The default setting is to use the Cisco utility. **If** the user has created wireless profiles within the Cisco utility **and** this setting specifies to use the Cisco utility, the Jetdirect wireless will not be able to switch the wireless Jetdirect device automatically to the wireless settings required for discovery.

Manual Configuration using Telnet or the Embedded Web Server

NOTE: The recommended installation procedure is to use the **HP Jetdirect Wireless Setup Wizard** to configure a wireless connection, and then another utility to install the printer, such as the **HP Install Network Printer Wizard** (Windows), available on your HP Jetdirect CD-ROM or from the HP Web. These tools will interactively guide you through this installation process. The alternative procedures described below are typically for advanced users.

1. On your wireless client computer, create a peer-to-peer network. The utility for your 802.11b networking card will vary depending on the wireless computer and client card used. Remember to either record your current settings or create a new profile for the 'hpsetup' network.

Network Name (SSID): hpsetup (case sensitive)

Network Type: Ad Hoc

WEP Encryption: <disabled>

2. Some computers that are using DHCP will take 60 to 90 seconds before an "Autonet" IP address is assigned. Typically this is an 169.x.x.x. Apple OS-X, OS9, Windows 2000, Windows Server 2003 and Windows XP are examples of this.

3. Print a configuration page from your Jetdirect wireless print server.

If your Jetdirect print server has the latest firmware (X.25.yy or higher), it will get a similar Autonet IP address as your PC (169.254 indicates an automatically assigned number. This number is visible on the configuration page). In this case, your computer should be able to communicate with the print server directly, without manual intervention. In this case, skip step 4 and go to Step 5.

4. If your Jetdirect print server shows an IP address of 192.0.0.192 on the configuration page, please follow the following steps. Refer also to the Notes-section below. Either change your IP address to be on the same subnet as the Jetdirect print server's address (in the case when the Jetdirect device has an older firmware and shows a 192.0.0.192 address), or perform a "route add" command (or similar command

```
C:\>route add 192.0.0.192 169.254.7.75
```

```
C:\>arp -s 192.0.0.192 00-c0-6f-03-99-79
```

```
C:\>ping 192.0.0.192
```

```
Pinging 192.0.0.192 with 32 bytes of data:
```

```
Request timed out.
```

```
Reply from 192.0.0.192: bytes=32 time<10ms TTL=255
```

```
Reply from 192.0.0.192: bytes=32 time<10ms TTL=255
```

```
Reply from 192.0.0.192: bytes=32 time<10ms TTL=255
```

```
Ping statistics for 192.0.0.192:
```

```
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
```

```
    Approximate round trip times in milli-seconds:
```

```
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\>
```

that routes the Jetdirect IP to your client computer).

[See NOTES below](#)

NOTES for step 4:

- If you change your IP address to be on the same subnet, 192.0.0.193 for example, you do not need to perform the “ro command.
- Once you have established communications, and if you have multiple Jetdirect print servers at the default address of 192.0.0.192, you should assign each of them a different IP address using the `arp -s` command as well as the `ping` command. You can also change the IP address (for example, `arp -s 192.0.0.100 00-01-e6-5a-f5-a7` and `ping 192.0.0.100`). Or you can use them to associate the address 192.0.0.192 with a specific MAC address as you do with the Jetdirect print servers as shown in the example above. Entering MAC addresses varies between computers. Some have the hexadecimal pairs, and others have colons. See your computer’s documentation for additional information on these parameters.
- If you print a Jetdirect configuration page prior to the print server joining the ad hoc network `hpsetup`, the IP address will be assigned. The configuration page will print “0.0.0.0” as the IP address. As soon as a client computer establishes an ad hoc network with `hpsetup`, the Jetdirect TCP/IP status will become “Ready”, and an IP address of 192.0.0.192 will be seen.

5. Now you can communicate with the Jetdirect print server. You can use the embedded Web server or telnet to configure the print server for your preferred Ad Hoc or infrastructure network. If you are using BOOTP or DHCP the default TCP/IP settings to use BOOTP/DHCP do not need to be changed.

[See NOTES below](#)

169.254.199.100 - Microsoft Internet Explorer provided by Hewlett-Packard

Address: https://169.254.199.100/

HP LaserJet 3300/3310/3320

Home Networking

CONFIGURATION

- Network Settings
- Other Settings
- Privacy Settings
- Select Language

SECURITY

- Settings
- Authorization
- Mgmt. Protocols
- Wireless

DIAGNOSTICS

- Network Statistics
- Protocol Info
- Configuration Page

Other Links

- Help
- Support
- HP Home

Network Settings

802.11b TCP/IP IPX/SPX AppleTalk DLC/LLC SNMP

WARNING: Use caution when changing the print server's wireless network settings; you may lose connection.

Click "Use Wizard" to use the 802.11b Configuration Wizard. [Use Wizard...](#)

Communication Mode

- Ad Hoc (peer-to-peer)
Channel: 11
- Infrastructure (Using an access point, gateway or Base Station...)

Network Name (SSID)

- Select Network Name (SSID): hpsetup
- Enter Network Name (SSID): hpsetup

Authentication

- Open System (No authentication)
- Shared Key (Requires a WEP key.)
- EAP/802.1x (Infrastructure mode only.)

Enable Protocols: LEAP PEAP EAP-MD5 EAP-TLS EAP-TTLS

NOTES for step 5:

- Some configuration features may not be available in Telnet.
- If you use the Embedded Web server, disable your Proxy settings for your browser for this initial configuration.
- If you are using Jetdirect firmware 25.04 or higher, you can make changes for both 802.11b and TCP/IP in the 802.11b sc
- In the case of an older Jetdirect firmware, you will lose connection after applying 802.11b changes if you are using the en server to configure the Jetdirect print server. If you are using a DHCP or BOOTP server, the print server automaticall address; otherwise you can browse to 192.0.0.192 and change the TCP/IP settings.
- If you are using Telnet to configure the Jetdirect print server, you can change both the 802.11b wireless settings and the T the same Telnet session.

6. After configuring your print server, change your computer's settings back to the network settings they had in [step 1](#) by switching entering the original wireless information.

NOTE:

If you are *not* using a DHCP or BOOTP server on the configured network, the print server will still be at 192.0.0.192 or 169.254.x.x configure the TCP/IP settings on the print server.

Downloading new firmware using FTP

You can now use FTP to download new firmware to these Jetdirect print servers.

See your Jetdirect Administrator's Guide on your Jetdirect CD or on the HP Web for more information about upgrading your print server.

Links to single Firmware files for FTP use can be found at <http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?objectID=bpj07429>, along

with links to other popular programs used for upgrading firmware, such as the HP Download Manager and Web Jetadmin and other firmware upgrade information.

To perform a firmware upgrade of these Jetdirect print servers from Apple systems, use the FTP utility on your computer. Firmware images will be posted on the HP Web site as they are available. Use appropriate login and password information to login and download the image to the print server.

Use appropriate login and password information for FTP access to your print server.

FTP command sequence to download a firmware file:

Open a command prompt on your computer, and type:

```
ftp <Jetdirect ip address>
login: [enter]
password: [enter]
bin
hash
cd download
put <download file name>
```

The "hash" command shows the file transfer in progress, however no download status can be presented during this time (ftp restriction).

At the end of the file transfer, it should say 'File transfer complete', and you should see a command prompt. At that

moment, you can close the FTP connection by typing 'bye'. The Jetdirect device will automatically reboot and start running the new firmware.

Installation hints when using Windows XP to manage your wireless settings

A. How to manually add an "hpsetup" ad hoc profile in Windows XP:

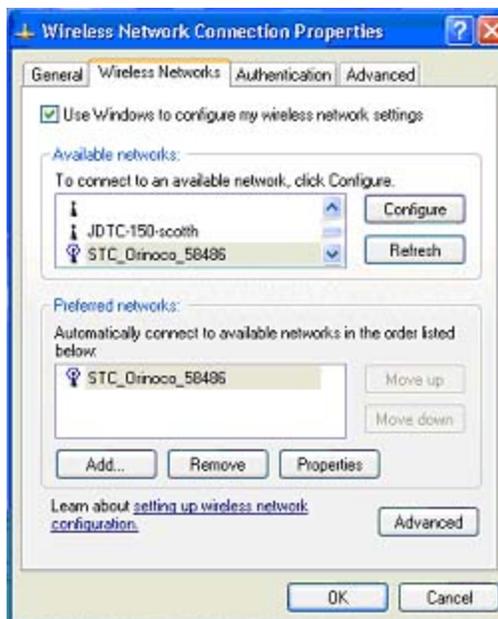
This process is a bit more complicated in Windows XP, because there can be more than one active profile. By default, infrastructure profiles will have higher priority than ad hoc profiles. So, for example, if you have two profiles set up, an infrastructure and an ad hoc, your PC will not associate with the ad hoc network, unless you follow these steps:

1. Open up the NIC client manager.

In this case we are using an Agere Orinoco® card, so you would double-click the client manager icon at the bottom of the desktop.



2. Select "Add/Edit Configuration Profile" under the "Actions" menu item. This will launch a "Wireless Network Connection Properties" dialog.



3. Go to the "Wireless Networks" tab.

4. Click on the "Advanced" button in the lower-right corner. This will launch the "Advanced" dialog.



5. Select the "Computer-to-computer (ad hoc) networks only" radio button.

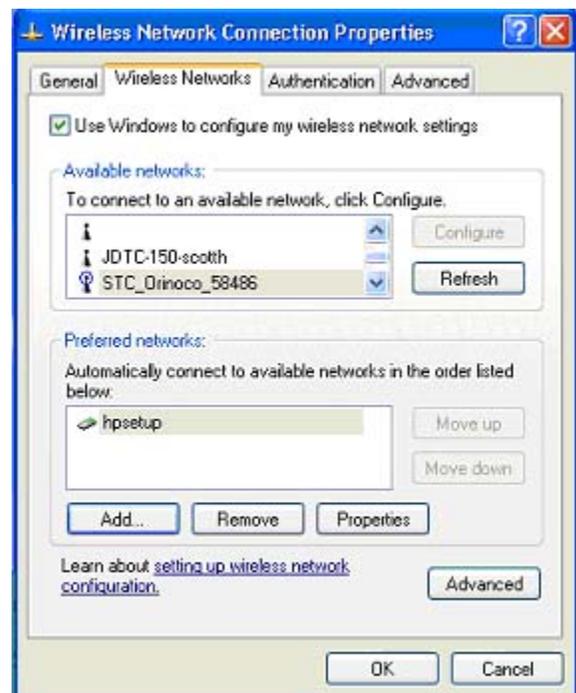
6. Click “Close”.

7. Click “Add”. This will launch the “Wireless Network Properties” dialog.



8. Enter “hpsetup” in the “Network name (SSID)” textbox.

9. Click “OK”.



10. Check to make sure that an “hpsetup” entry is listed under “Preferred Networks”. If you have any other ad hoc profiles, make sure to move the “hpsetup” profile to the topmost position by selecting “hpsetup” and clicking the “Move up” button.

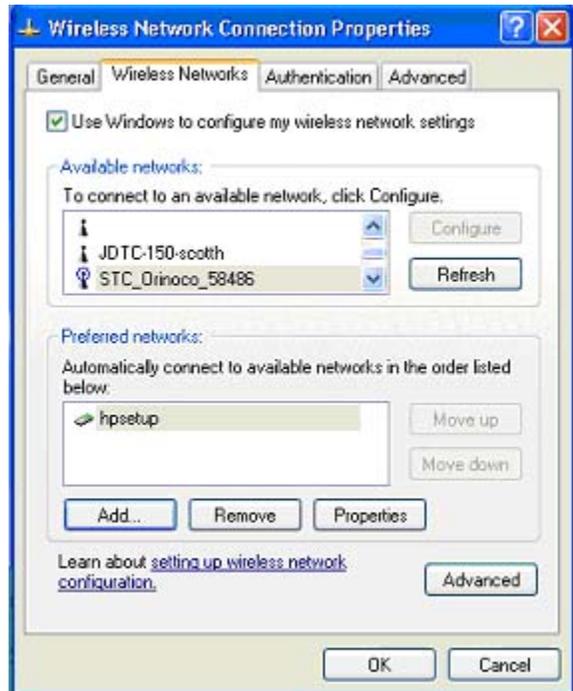
11. Click “OK”.

B. How to manually restore your previous profiles in Windows XP:

1. Open up the NIC client manager.

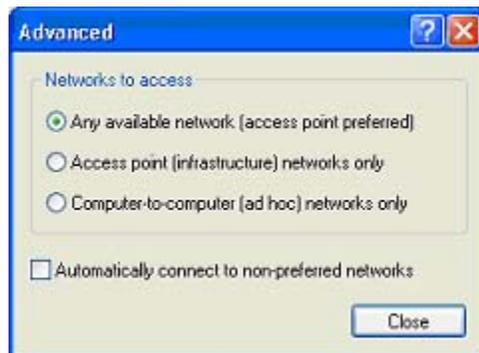


2. Select “Add/Edit Configuration Profile” under the “Actions” menu item. This will launch a “Wireless Network Connection Properties” dialog.



3. Go to the “Wireless Networks” tab.

4. Click on the “Advanced” button in the lower right hand corner.

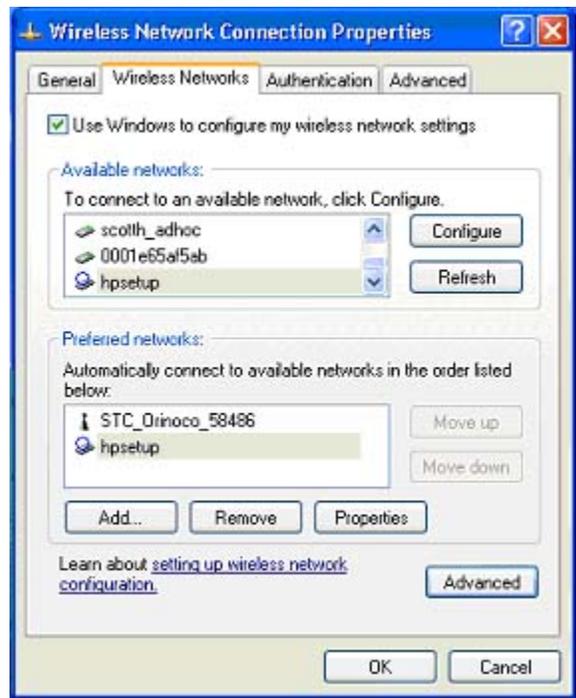


5. Select the “Any available network (access point preferred)” radio button.

6. Click “Close”.

7. To delete the “hpsetup” profile, select “hpsetup” in the “Preferred networks” list and click “Remove”.

8. Click “OK”.



Additional Wireless Notes

1. Authentication methods, such as Shared Key, are required before the HP Jetdirect wireless print server can report wireless authentication error messages. If Open Systems authentication is configured, where authentication is not required, no error messages are provided to the HP Jetdirect wireless print server. Where possible, use an authentication method that requires authentication for network access.
2. The HP Jetdirect wireless print server may not report all access points available in your area while in ad hoc mode. Some access points may not broadcast their network name (SSID), or the Jetdirect print server may not have heard the access point because it cycles between broadcasting its ad hoc SSID of “hpsetup” and listening.
3. The HP Jetdirect wireless print server is shipped in ad hoc mode with a network name (SSID) of “hpsetup”. This is case sensitive (“HPSSetup” is not the same as “hpsetup”, for example).
4. Because of regulatory reasons, the HP Jetdirect wireless print server can only be set to ad hoc channel 10 or 11. However, if another device sets up the ad hoc network on another channel first, the HP Jetdirect wireless print server will join that network on the channel set by the device initially establishing the network.
5. If you are using selected EAP/802.1x authentication protocols (such as LEAP or EAP-TLS), do not enter values for the WEP key using the embedded Web server or Telnet. Most EAP/802.1x protocols use dynamic keys under the control of an authentication server. Overriding these values could cause the HP Jetdirect wireless print server to lose communication with the access point.
6. HP Jetdirect wireless print servers with firmware versions of X.25.yy or later (where 'X' indicates the firmware letter for a specific Jetdirect device, and 'yy' indicates the sub-revision) in Ad Hoc mode (factory default mode) will be assigned a link-local IP address in the form 169.254.x.x, instead of 192.0.0.192 as in previous firmware versions. An Auto IP feature on the print server will assign link-local IP addresses in accordance with the link-local standards.

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