**HP Print Server
Appliance 4200
User's Guide**

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General Information

Initial Set Up

Network Settings

Printers and Drivers

Security

Maintenance

HP Print Server Appliance Documentation

for Firmware Version 2.3.x

Product Overview

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Product Introduction

Figure 1: The HP Print Server Appliance 4200

The HP Print Server Appliance 4200 is a state-of-the-art device for managing and monitoring printing over a network. It is a network device that has been designed to provide a quick and easy way to add print capacity without affecting the general purpose server. It has several distinct advantages over conventional network

printing configurations which can result in improved performance in both printing and file access. These advantages are discussed below.

Microsoft NT domain security, also known as Microsoft NT Authentication and Authority, is a feature that allows administrators to easily authorize or restrict print administration and services to specific groups or users by using their existing username and password of the NT 4.0 domain. An NT domain is a logical grouping of network servers and other computers that share a common security and user account for each user. Users log on to the domain, not to individual servers in the domain

Installing printers on each client computer is required in order for clients to be able to print using the appliance. With the Microsoft Point and Print technology, printers are added to the appliance and associated with a factory-installed driver or a driver already added associated with a printer. Clients can be easily set up with access to that printer and its driver without having to install the driver again.

In a typical network, general purpose servers manage both the printing tasks and the file/application serving. The appliance handles the spooling and network traffic associated with printing, reducing the workload on the general purpose server.

When printing takes place at remote offices or other locations distant from the servers, the speed of printing can be degraded. A appliance installed in a remote office can dramatically increase printing performance by eliminating the need for print requests to travel from the remote office to the central site and back to a remote office printer.

An additional benefit is that if general purpose file/application servers go down, remote office users can still print many jobs directly, using the appliance.

Operation and Management

Once the appliance is configured, virtually no management tasks are required. However, system administrators can monitor print activity, manage the printers, or alter the configuration of the appliance from anywhere on the network using the appliance's web-based graphical user interface and a supported browser.

Product Description

The appliance contains a large disk drive for spooling print jobs from clients. Print jobs are stored on the disk drive. The number of print jobs is only limited by the disk space available on the appliance.

The appliance provides web-accessible printer management and configuration and spools print jobs from the following clients:

- Microsoft Windows 95
- Microsoft Windows 98
- Microsoft Windows 2000
- Microsoft Windows NT
- Microsoft Windows ME
- Microsoft Windows XP
- UNIX

Following are some main features of the appliance:

- Off-loads spooling from a UNIX or Windows NT server
- Easy installation

- Easy management
  - [Can be managed from any supported web browser on the network](#)
  - Virtually no management required once installed
- Supports APC uninterruptible power supplies (UPSs) (simple or basic signaling protocol)
- Increases performance of general purpose servers
- Easy replication of configuration and printer drivers across appliances
- Reduces network traffic
- Transparent to client users
- Easy to pre-configure before shipping to a remote office
- [Web configuration interface](#)
- Password security
- [Upgradable](#)
- Front panel LCD display and keypad
- 10/100Base-TX Ethernet network interface
- [Microsoft networking (SMB over IP)](#)
- Support for native Microsoft client printing tools
- Compatible with [Microsoft's Point and Print technology](#) (automatic driver download from the appliance to clients)
- [Windows NT Domain Integration](#)
- [Line Printer Daemon (LPD) support](#) for UNIX clients

Compatibitility with HP Print Servers

The appliance will work with any HP print server with firmware version x.03 and above.

Compatibitility with Other (Non-HP) Print Servers

Any print server that supports LPD should work with the appliance. The proper LPD remote queue name for the print server might have to be known. Many print servers will work without specifying a remote queue name (use the default HP PRINT SERVER setting); however, some require a special string in order to work. The LPD remote queue name can be obtained from the print server vendor.

Product Updates

When new firmware or other device-specific support information is available for the appliance, the appliance can be notified automatically. On the TCP/IP page, a field "Check for print server appliance firmware updates during each web login" can be checked to enable this feature. If this is checked and new firmware or support information is available, the picture of the applianceappliance image on the Overview page in the web interface will change.

This feature is enabled by default and can be disabled by unchecking this box. Each time an image is retrieved, it is logged like any other visit to HP's website. In addition, each request includes the serial number of the requesting unit. HP uses this to provide support information relative to the specific unit. No personally identifiable information such as user name, email address, or physical address is gathered as part of this process. HP does monitor web logs in order to understand our customers and improve our products. All web transactions

are subject to HP's privacy policy which can be found at:http://www.hp.com/country/us/eng/privacy.htm.

Product Specifications

Links within this document:

Figure 1: The HP Print Server Appliance 4200

Model Number

Product	Model number
HP Print Server Appliance 4200	J4117A

System Requirements

The computer printing to the appliance must be running TCP/IP and have Microsoft Windows 95, 98, NT, 2000, ME, XP, or other operating systems running LPD.

Language Options and Power Cord Requirements

The following localization options are available for the power cord. The power cord must be be a standard IEC-320 female power cord, terminated by a male plug appropriate for the country of use.

Country	Option Code	Power Cord
U.S. Canada (excluding Quebec)	ABA	8120-6805
Europe, including: Austria Belgium Finland France Germany Italy Netherlands Norway Portugal Spain Sweden	401	8120-6802
Denmark	ACE	8120-6806
Switzerland	AR8	8120-6807
United Kingdom Singapore	ACC	8120-8709
South Africa	ACQ	8120-6808
Australia New Zealand	ABG	8120-6810
Hong Kong	AB5	8120-8709

Supported Clients

Clients are networked PCs that submit print jobs to the appliance. The appliance can accept print jobs from the following clients:

- Windows 95
- Windows 98
- Windows NT 4.0
- Windows 2000
- Windows ME
- Windows XP
- Any RFC 1179-compliant LPD client including (not all LPD implementations are RFC 1179-compliant):
  - HP-UX 10.x and above
  - Solaris
  - Linux
  - AIX 4.3 and above

Note: The Microsoft Point and Print feature for Windows NT and Windows 2000 is only supported on an x86 PC.

Note: The appliance supports SNMP MIB2.

Supported Printers

Any printer or print server that supports the LPD protocol should work with the appliance.

Supported Web Browsers

The following web browsers are supported:
- Netscape Navigator 4.01 or greater
- Microsoft (R) Internet Explorer 4.0 or greater (with update version SP1)

What Ships in the Box

The following are included in the box:
1. HP Print Server Appliance 4200
2. Quick Start Poster
3. Documentation CD-ROM
4. Rubber feet
5. Rackmount brackets
6. Power cable

Security Features

The appliance has a front panel password to prevent unauthorized front panel configuration. It also has a web administrator name and password, which are required to configure the device or manage printers (the default username is admin and the default password is admin). Additional web administrator accounts can be added.

The existing user account information of the NT 4.0 domain (name and password) is used; users or groups of users can be authorized to print through the appliance without requiring the creation of user accounts and passwords on the appliance.

For NT Domain networks, administrators can easily restrict print administration and services to specific groups or users. Valid access levels are:
- Print (print, pause, and delete your own print jobs)
- Manage Documents (print, pause, and delete other user's print jobs)
- Full Control (print, pause, and delete other user's print jobs, delete printers, and change security settings (using native NT tools))
- No Access

Physical Specifications

Attribute	Specification
Dimensions	441 millimeters (mm) (17.4 inches) W x 323 mm (12.7 inches) D x 63 mm (2.5 inches) H
Weight	4.6 kilograms (10.1 pounds)
Temperature	Operating: +5 degrees Celsius (C) to +40 degrees C (41 degrees Fahrenheit (F) to 104 degrees F)
	Non-operating: -40 degrees C to +70 degrees C (-40 degrees F to 158 degrees F)
Network connection	RJ-45
Serial port	DB-9 (supports all APC uninterruptible power supplies with a Simple Signaling cable (APC part # 940-0020B))

Acoustic noise	52 dB
Minimum Hard Drive	10 Gigabytes
Minimum Processor Speed	300 Megahertz
Recommended Number of Printers Supported	50
Largest Spoolable File Size	2 Gigabytes
Minimum Spooling Capacity	7 Gigabytes

Electrical Specifications

Attribute	Specification
Power requirements	120/240 VAC at 50/60 Hz
Power consumption	100-127 VAC/1.0A 200-240 VAC/.75A
Power connection	IEC-320

Environmental Specifications

Attribute	Specification
Relative humidity	80 percent at 40 degrees C (104 degrees F)
Temperature	(Operating) +5 degrees Celsius (C) (41 degrees Fahrenheit (F)) to +40 degrees Celsius (104 degrees F) (Non-operating) -40 degrees Celsius (-38 degrees F) to +70 degrees Celsius (158 degrees F)

Safety Certifications

Products comply with:

- IEC 950: (1991)+A1,A2,A3,A4/EN60950 (1992)+A1,A2,A3,A4
- UL 1950
- CSA 950

Getting Started

Links within this document:

➜ [What Ships in the Box](#)
➜ [Steps for Installation and Configuration](#)
➜ [Hardware Installation](#)

Links to related documents:

➜ [Troubleshooting the Appliance](#)

What Ships in the Box

The following items ship with appliance. If something is missing from the box, please contact the HP Dealer or Reseller where the appliance was purchased.
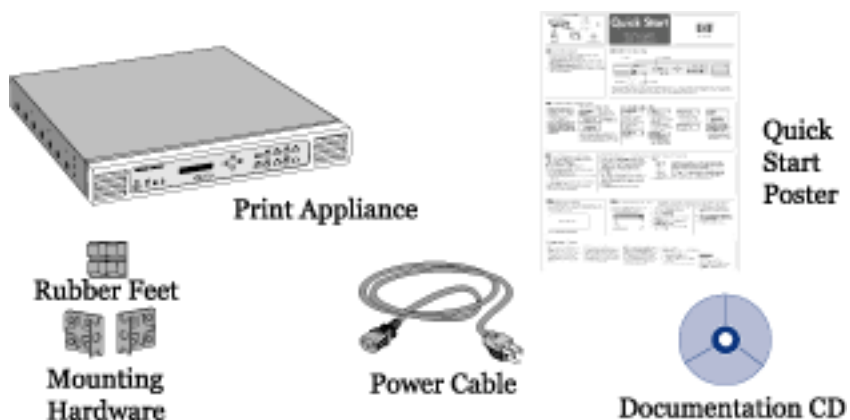
Figure 1: Contents of the box

Steps for Installation and Configuration

To install the appliance, complete these steps:

1. Unpack the appliance and make sure the six items are included in the box.
2. Attach its rubber feet for desktop, rack shelf, or under-printer installation. For rackmount installation, click here.
3. Connect the cables and components.
4. Configure the IP settings using the front panel (for the first time). The IP address can be changed through the web interface if desired.
5. Access the web interface.
6. Under Network Settings, complete the TCP/IP Network Settings page.
7. Also under Network Settings, complete the Microsoft Networking Settings page to identify the WINS server address and the Windows NT domain or workgroup. For NT Domain security, complete the other fields on this page.
8. Install printers on clients.
9. Back up the settings.
10. Be sure to register the appliance (http://www.hp.com/go/printappliance_registration).

Front Panel

Links to related documents:
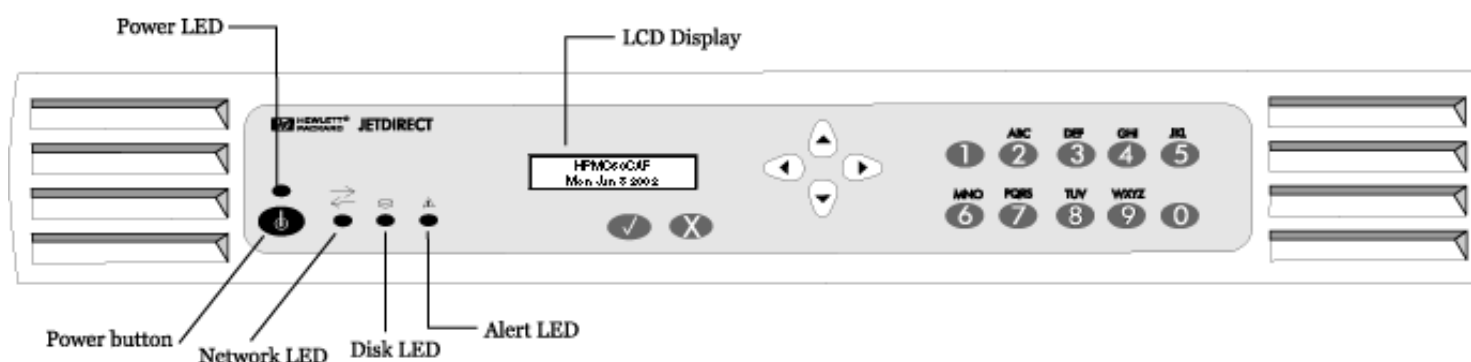
➔   <u>Troubleshooting the Appliance</u>

The following activities can be performed from the front panel:

➔ <u>Start Up or Shut Down the Appliance</u>
➔ <u>Configure the IP Address for the Appliance</u>
➔ <u>Set or Change the Front Panel Password</u>

The front panel on the HP Print Server Appliance 4200 has the following components:

LEDs

There are four indicator lights (LEDs) on the front of the appliance. Understanding how the lights function is important for proper operation of the appliance. This document describes normal and problem LED status displays.

LED	LED Name	Description
	Power LED	ON when power is supplied to the appliance and it is <u>turned on</u>.
	Network Activity LED	LIT when there is a connection between the appliance and other network devices. BLINKS when there is network activity between the appliance and other network devices.

⬭ 🟢	**Disk Activity LED**	ON when there is disk activity on the appliance.
⚠ 🟠	**Alert LED**	OFF during normal operations (ON during bootup and shutdown).

Power Button - Starting Up and Shutting Down the appliance

Press the Power button to power up the appliance. The bootup process begins. When the device is powered on, the Power LED is lit. To turn off the aappliance press the Power button and wait for about 20 seconds for the appliance to power down. The appliance performs an orderly shutdown.

If print jobs are printing when the appliance is powered down, the print jobs will not be completed. Jobs waiting to be printed will resume printing when the appliance is fully booted. If theappliance loses power unexpectedly and is not powered down, spooled print jobs that had not yet begun printing or print jobs that were in the middle of printing will resume printing when power is restored and the appliance is powered up again. If, however, the integrity of the appliance or print jobs are compromised, print jobs that were not spooled would have to be resent.

Front Panel Display

The LCD display has two rows of 16 characters or spaces. It is used to display the status of the appliance and to display configuration information entered at the front panel. The following arrow buttons are displayed on the front panel:

↕	Indicates that the menu can scroll. ⬆ scrolls up, ⬇ scrolls down.
◄►	Indicates that choices can be toggled through.

Enter and Cancel Buttons

✔	Enter. Accept changes or begin an operation.
✗	Cancel changes or end an operation.

Direction Buttons

▲	Up. Press this button to return to the previous menu item or step of a procedure. If Enter hasn't been pressed, changes will not be applied.
▼	Down. Press this button to advance to the next menu item or step of a procedure.
◄	Left. When there is a choice of options (as indicated in the front panel display), press this button to toggle backward through the choices.
►	Right. When there is a choice of options (as indicated in the front panel display), press this button to toggle forward through the choices.

Numeric Keypad

The numeric keypad has buttons for the numbers 0-9. Above the keys are letters of the alphabet, like the keypad on a telephone.

Use the numeric keypad to enter numeric values, such as IP address, subnet mask, etc., when configuring the appliance. The letters above the keys can be useful as a mnemonic aid when entering the device's password.

Making Entries

Use ◁ and ▷ on the front panel to move the cursor in the front panel display. Enter only numbers from the keypad. When the entry is complete, press ✔.

Messages on the Front Panel

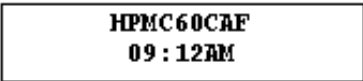When the appliance is powered up, it executes a series of self tests. It then displays a series of messages, including "Booting... Configuring... Validating... Extracting... Formatting..." etc.

When the startup process is complete, the appliance displays a repeating series of normal operating messages.
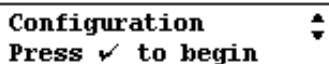
```
HPMC60CAF
09:12AM
```

The first line of the display shows the appliance name which can be entered from the web interface during configuration (on the Microsoft Networking Settings page). If the name is not entered in the web interface, the default name, based on the device's MAC address, is displayed.

The second line of the display shows date, time, IP address, and firmware version in a repeating sequence.

Starting Front Panel Operation

There are two front panel operations: Configuration and Password.

Press ✔ once to begin front panel operations.

```
Configuration        ▲▼
Press ✔ to begin
```

Press ✔ again to go to the Change Configuration function. Press ▲ to go to the Change Password function.

Setting or Changing the Front Panel Password

There are two types of passwords that can be set for the appliance: a front panel password (one per appliance) and an administrator password (can be multiple accounts, but there must be at least one), which enables access to the web interface to manage the appliance. The front panel password is discussed in this section.

There is no front panel password until it is set. This password limits access to front panel functions. A password will prevent unauthorized configuration changes. After the front panel password is set, it must be entered before future configuration tasks can be performed at the front panel display.

To set or change the front panel password, press ✔ once. The following screens are displayed:

Configuration Press ✓ to begin ⬍	Press . ⊙
Change Password Press ✓ to begin ⬍	Press ✔ .
New Password ▮	Enter a new password and press ✔ .
Retype Password ▮	Retype the new password and press ✔ .
Password set	The front panel displays this message briefly.
Change Password Press ✓ to begin ⬍	Press ✘ to end the operation and the device will return to the display of normal operating messages. Or, after a moment, it will display normal operating messages.

Configuring the IP Address Using the Front Panel

➡ Configuring the IP Address Manually
➡ Configuring the IP Address Using DHCP

These procedures explain how to manually configure an Internet Protocol (IP) address on the appliance using the front panel. (The TCP/IP page in the web interface can also be used to do the same.) Configuring the IP address allows the appliance to route print tasks properly.

If the network does not use Dynamic Host Configuration Protocol (DHCP), use the front panel of the appliance to manually enter the IP address, subnet mask, and default gateway.

To begin configuring the IP address for the appliance, press ✔ once. The following screen is displayed:

```
Configuration    ⬍
Press ✓ to begin
```
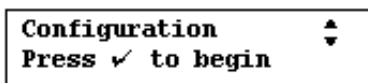
Press ✔ again to go to the Change Configuration function. (Pressing ✘ starts the Change Password process.)

```
IP Config Mode   ⬍
=Manual          ◀▶
```
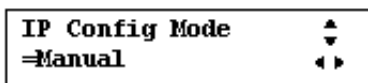
The display shows Manual mode. Press ◀ or ▶ to toggle between DHCP and manual modes.

Press ✘ to cancel the operation and go to the main display, or press ▼ to continue the configuration process.

Configuring the IP Address Manually

In Manual mode, the following is displayed:

Display	Action
IP Address: 010.001.002.003	Use the number buttons on the front panel of the appliance to enter the IP address. Press ⌄.
Subnet Mask: 255.000.000.000	Use the number buttons on the front panel of the appliance to enter the subnet mask. Press ⌄.
Default Gateway: 010.001.002.003	Use the numbers on the front panel of the appliance to enter the default gateway. Press ⌄.
Exit config Press ✔ to exit	Press ✔.
✔ Apply changes ✗ Cancel changes	Press ✔.
Restarting Network...	After a moment, the appliance will resume displaying normal operating messages if the IP address entered is valid.

Configuring the IP Address Using DHCP

In DHCP mode, the following is displayed:

Display	Action
IP Config Mode DHCP	The "=" will appear in the display.
IP Config Mode =DHCP	Press ⌄ twice to display this message.
Exit config Press ✔ to exit	Press ✔.
✔ Apply changes ✗ Cancel changes	Press ✔.
Restarting Network...	After a moment, the appliance will resume displaying normal operating messages.

Use the web interface to further configure the appliance. Refer back to the Getting Started procedures, or refer directly to information about using the web interface to further configure the device.

Hardware Installation

Links within this document:

➜   [Desktop/Rack Shelf/Under-Printer Installation](#)

➜   [Rackmount Installation](#)

➜   [Cable Connections](#)

➜   [Troubleshooting the Appliance](#)

Links to related documents:

➜ [Troubleshooting the Appliance](#)

This document explains how to connect the components of the appliance. When installing the hardware for the appliance, be certain to carefully follow all instructions to ensure the proper connection and function of the appliance.

Desktop/Rack Shelf/Under-Printer Installation

Use the following procedure to perform the desktop/rack shelf/under-printer installation:

CAUTION: For under-printer installation, the appliance can support printers that weigh up to 60 pounds. Do not place heavier printers on the appliance.

1. Turn the appliance so it rests on its top.
2. The appliance ships with a set of four self-adhesive rubber "feet" on a paper backing sheet. Remove each foot from the paper backing. Install each foot on the bottom of the appliance in the indentation provided. Press each foot firmly into place.
3. Turn the appliance over so it rests on its rubber feet.
4. Locate the appliance for easy access to a power source and network connection. It may be located on any solid surface, in a rack shelf, or under a printer.
5. [Connect cables](#).

Rackmount Installation

The appliance may be rack-mounted into industry-standard instrument/computer racks. The appliance is shipped with a pair of rack-mount brackets with four screws. There are also four screws for mounting the brackets to the appliance in the rack.

The appliance requires 1.5 rack units (RU) of vertical space. It does not require rails for rack mounting.

Note: The rackmount installation should be performed by an experienced individual, using appropriate tools, and exercising appropriate safety precautions.

Use the following procedure to perform the rackmount installation:

1. Attach the rackmount brackets to the sides of the appliance.
2. Position the appliance in the rack.
3. Install the appliance into the rack. Use all of the provided screws in both vertical rails of the rack.

    Caution: To prevent unstable mounting of the appliance, Hewlett-Packard recommends using two screws per bracket.

4. Now the cables should be connected.

Cable Connections

Use the following steps to connect the cables:
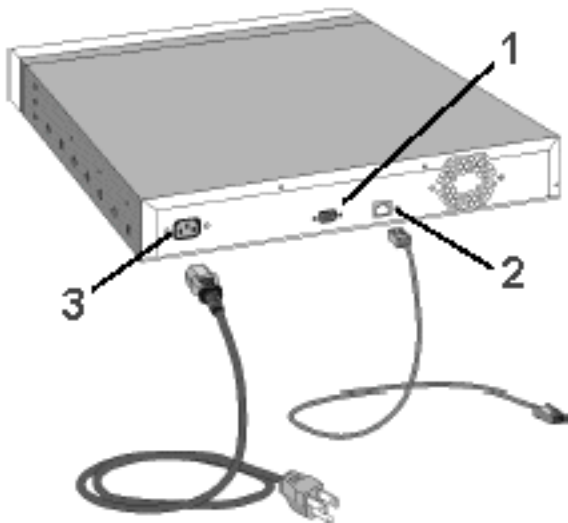
- 1. DB-9 Serial Port (supports all APC uninterruptible power supplies with a Simple Signaling cable (APC part # 940-0020B))
  2. RJ-45 Network Jack
  3. Power Receptacle

1. Connect a twisted pair network cable (not included) with an RJ-45 connector to the RJ-45 jack on the back of the appliance (see Figure 1, number 2).
2. Connect the other end of the network cable to a network port.
3. If using an APC uninterruptible power supply (UPS), connect a Simple Signaling cable from the UPS to the DB-9 serial port on the back of the appliance.

Note: The Simple Signaling cable is not included with the appliance or with the APC UPS. This cable can be ordered from APC (APC part # 940-0020B).

4. Connect the power cable to the power receptacle on the back of the appliance.

   Note: Make certain that air flow is not restricted around the back of the unit.

5. Connect the other end of the power cable to a power source. If a UPS is being used, connect the power cable to the UPS.

6. Turn on the appliance by pressing the Power button on the front panel.

For initial installation, the IP address for the appliance can now be configured. Refer back to the Getting Started procedures, or refer directly to information about configuring IP addresses.

Web Interface for the Appliance

Links within this document:

➜   [Supported Web Browsers](#)
➜   [Accessing the Web Interface](#)
➜   [Menu](#)
➜   [Overview Page](#)
➜   [Changing the Date and Time](#)

The appliance contains an embedded web server. The web server allows administrators to manage the configuration of the appliance, review the status of the device, and view print jobs from your web browser.

This document explains what can be configured through this interface and how to [access the web interface](#) on the appliance.

Supported Web Browsers

The following web browsers are supported:
- Netscape Navigator 4.01 or greater
- Microsoft (R) Internet Explorer 4.0 or greater (with update version SP1)

Accessing the Web Interface

Follow these steps to access the web interface:
1. Open the web browser.
2. In the Location field (Netscape Navigator) or Address field (Microsoft Internet Explorer), enter the IP address of the appliance, as displayed on the front panel liquid-crystal display (LCD) (for example: http://10.1.2.3). Or, enter the DNS name of the appliance (if the DNS server has been configured with the correct name entry).
3. Enter the administrator name and password. (The default is "admin" for the username and "admin" for the password.) The [Overview page](#) is displayed with the menu on the left.

The [Overview page](#) displays general information about the appliance.

Menu

The menu is always displayed on the left side of the any displayed page in the web interface. Click on any of the following topics listed on the menu for more information:

General

➡Overview
➡Date/Time
➡Admin Accounts
➡Diagnostics
➡Event Log
➡Install Upgrade
➡Restart Appliance

Network Settings
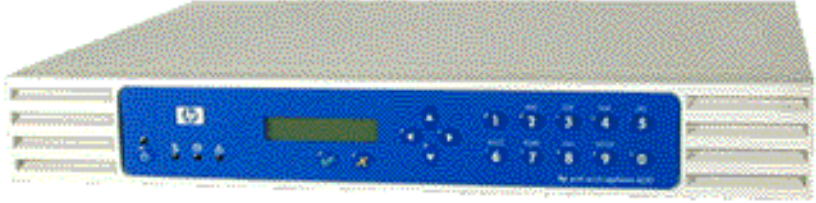
➡TCP/IP
➡Microsoft Networking
➡LPD Settings

Print Services

➡Printers
➡Driver Management

Backup/Restore

➡Backup Settings
➡Restore Settings

Overview Page

The following information is displayed on the Overview page:

Print Server Appliance Name	Name as entered on the Microsoft Networking Settings page under Network Settings.
IP Address	IP address for the appliance as entered on the TCP/IP page under Network Settings.
MAC Address	Hardware address for the appliance.
Serial Number	Serial number for the appliance.
Firmware revision	Firmware revision number currently on the appliance.
Printers	Number of printers currently managed by the appliance.
Jobs Pending	Number of print jobs waiting to be printed for all of the printers managed by the appliance.

Changing the Date and Time

Use the Date and Time Configuration page to set the date and time of the appliance.

Field Name	Description
Date	Enter the date in the format: mm/dd/yyyy. The complete year must be specified. Leading zeroes may be omitted. (For example: "1/1/1999" and "12/25/2001".)
Time	Enter the time in the format: hh:mm:ss. The seconds and leading zeroes may be omitted. (For example: "5:35" and "12:00:00".)
AM/PM	Use the drop-down box to select AM or PM. The 24-hour time format is not supported.
Time Zone	Select the appropriate time zone from the drop-down box.

Click [X) cancel] to keep the time and date at their previous values, or click Apply to set the date and time.

➜ System Messages for Data and Time

TCP/IP

Links within this document:

➜   [TCP/IP Network Settings](#)
➜   [Configuring the Appliance Using the Web Interface](#)

Links to related documents:

➜ [Related System Messages](#)
➜ [Troubleshooting the Appliance](#)

TCP/IP Network Settings

The TCP/IP Network Settings page is accessible under Network Settings on the menu. On this page, administrators can configure:

- the IP address
- subnet mask
- gateway
- Domain Name Server (DNS) address
- DNS Domain Name

Field Name	Description
Obtain an IP address automatically using DHCP	Select this option for the appliance to be automatically configured using Dynamic Host Configuration Protocol (DHCP). Ensure that a valid DHCP server and address leases are available. If DHCP was chosen, the IP address, subnet mask, and default gateway will be automatically configured.
Manually specify IP information	Select this option to manually specify the IP address information for the appliance. Each field must be entered manually.
IP address	Enter an IP address without leading zeroes (for example: "10.1.2.3").
Subnet mask	Enter a subnet mask (for example: "255.0.0.0").
Default gateway	Enter the IP address of the default gateway used to access other networks or subnets. This enables the appliance to communicate with devices (such as printers and PCs) on different subnets. If a gateway is not available, or if the address of the gateway is unknown, enter the same IP address used for the appliance, or leave this field blank (or empty).

Domain Name Server (DNS) Address	The DNS enables network resources (such as PCs and printers) to be specified by by their friendly names instead of their IP addresses. In order to use this functionality, specify the DNS server by its IP address, not by its friendly name. Once the DNS is specified, use friendly names across other configuration areas of the appliance (such as the queue configuration screen). If the network does not have a DNS, leave this field blank (or empty).
DNS Domain Name	The DNS domain name. For example, a server named mail.hp.com (hp.com is the DNS name and mail is the hostname). The domain name must match standard naming conventions. The name must be alphanumeric. It may also contain dashes (-) (for example : mycompany.com). If the network does not have a DNS domain name, "defaultdomain" is entered as the default.
Check for Print Server Appliance firmware updates during each web login	The Overview page can display new information regarding the appliance if this box is checked.

Configuring the Appliance Using the Web Interface

1. At a workstation, access the web browser.

2. Log on to the appliance as an administrator (The default is "admin" for the username and "admin" for the password.)

3. Complete the TCP/IP Network Settings screen. See the description of the fields (above) for more information.

4. Click ✓ apply.

After this screen has been completed, complete the Microsoft Networking Settings page to identify the WINS server address and the Windows NT domain or workgroup. For the Windows NT domain security feature, complete the other fields on that page.

Microsoft Networking Settings

Links within this document:

Links to related documents:

Microsoft Networking Settings Page

The Microsoft Networking Settings page is accessible under Network Settings on the menu. On this page, administrators can:

- change the appliance name
- identify the WINS server address
- identify the Windows NT domain or workgroup
- enable Microsoft NT Domain authentication

Field Name	Description

Print Server Appliance Name	Enter a name for the appliance. The appliance name will be displayed: • In the Network Neighborhood on each client workstation. The Network Neighborhood is visible from Microsoft Windows Explorer. • On the Overview page in the web interface for the appliance • On the front panel of the appliance. If the network uses DNS to identify network resources, this name should match the DNS name. Otherwise, any name will work. The name may contain up to 220 alphanumeric characters. It may also contain hyphens (-) and periods (.). (The hostname cannot begin with a hyphen (-), but it can have a hyphen within the name.)
WINS Server Address	(Windows Internet Name Server) Enables network resources (such as PCs and printers) to be specified by their friendly names instead of their IP addresses. In order to use this functionality, specify the WINS server by its IP address, not by its friendly name. Once the WINS server is specified, use friendly names across other configuration areas of the appliance (such as the queue configuration screen). If the network does not have a WINS server configured, leave this field blank. Without a WINS server configured, Windows 95, 98, and ME clients may be unable to print to a appliance located on a different subnet. NT domain integration may behave unpredictably if this field is blank.
Windows NT Domain or Workgroup	Specify the Windows NT domain or workgroup this appliance belongs to. The appliance will appear under this name in Network Neighborhood.
Enable NT Domain Authentication	Check this box to enable NT domain security for the appliance. Uncheck the box to disable NT domain security. (The default is disabled.)
Automatically discover NT Domain Controllers	Select this to automatically discover the NT domain controller for the domain or workgroup as specified above in the "Windows NT Domain or Workgroup" field.
Manually specify NT Domain Controllers	Select this to manually specify the domain controllers.
NT Domain Controller	Enter the domain controller's name or IP address to be added to the list of Configured Domain Controllers; click [+) add] to add it to the list.
Specified Domain Controllers	List of specified domain controllers to use for username and password validation. The print appliance will try to communicate with the first domain controller in the list. If the print appliance cannot communicate with the first one, it will then try the second domain controller in the list, and so forth. Click [▲) up] or [▼) down] to reorder the domain controller names in the list. Click [−) remove] to take a domain controller off the list. (This is only valid when in manual mode.)

NT Domain Membership Status	The current status of the appliance's membership in the NT domain.
Create account in the NT Domain for this device	Check this to create a new computer account for the appliance in the NT domain; then enter the domain administrator username and password below. **Note:** A WINS server must be specified in the WINS Server Address field on this page.
NT Domain Administrator Name	A valid administrator's name as stored on the NT Domain Controller.
NT Domain Administrator Password	A valid administrator's password as stored on the NT Domain Controller.

To complete the Microsoft Networking Settings page, follow these steps:

1. At a workstation, access the web browser and enter the IP address for the appliance.
2. Log on to the appliance as an administrator. (The default is "admin" for the username and "admin" for the password.)
3. Under Network Settings on the menu, select Microsoft Networking. (See the description of the fields above for more information.)
4. Complete the Print Server Appliance Name field.
5. Complete the WINS Server Address field.
6. Complete the Windows NT Domain or Workgroup field.
7. If the security feature for Windows NT authentication and authority is being used, complete the other fields on this page.
8. Click ✓ apply. The network will be restarted with the new settings.

Note: Hewlett-Packard recommends backing up the settings after this page is completed.

Microsoft Windows NT Domain Authentication Features

An NT domain is a logical grouping of network servers and other computers that share a common security and user account for each user. Users log on to the domain, not to individual servers in the domain. Microsoft NT domain security is a feature that allows administrators to easily authorize or restrict print administration and services to specific groups or users by using their existing username and password of the NT domain.

The NT domain security feature provides the following features:

- Seamless integration for the print client user (the native tools for printing and managing personal documents work the same as they do with Microsoft NT spoolers).
- Assignment of permissions are on a per-printer basis.
- Disabling and enabling NT domain security and authority without losing configuration information.
- Setting or changing permissions using the web interface or native NT tools.
- Specifying selected groups that can have one of the following four permission levels for each printer, using native NT tools:
  ○ Print (print, pause, and delete your own print jobs)
  ○ Manage Documents (pause and delete other user's print jobs)
  ○ Full Control (print, pause, and delete other user's print jobs, delete printers, and change security settings)
  ○ No Access
  ○ Special Access (for some Windows 2000 and XP permissions that do not map directly to the above four permission levels)

Adding the Appliance to a Domain

There are two ways to add the appliance to a domain:

- Complete the fields on the Microsoft Networking Settings page. Set the appliance name and then, at a minimum, select the box for "Create account in the NT Domain for this device" and complete "Domain Administrator Name" and "Domain Administrator Password".

  OR

- Create a machine account on the domain controller using Server Manager. A machine account must be created before the appliance can join the specified domain.

  Note: This method must be used if a WINS Server was not specified on the Microsoft Networking Settings page.

  1. Log on to the NT server as an NT administrator.
  2. Add the appliance to the domain using the Server Manager.
  3. Log on to the appliance as Appliance Administrator using the appliance's web interface. (The default is "admin" for the username and "admin" for the password.)
  4. Set the NT domain name on the Microsoft Networking Settings page by completing the "Windows NT or Workgroup" field.

Enabling and Disabling Microsoft NT Domain Security

The administrator can, at any time, turn on or off NT domain security. If NT domain security is on and the appliance cannot communicate with the domain controller over the network, users will not be able to print using the appliance. The administrator can turn off NT domain security, which would enable users to continue printing although no security will be enforced. To disable NT domain security, access the Microsoft Networking Settings page, and make sure the box for "Enable NT Domain Authentication" is not checked.

With NT Domain authentication disabled, local administrator accounts must be used to manage the appliance and access the web interface because all domain administrator accounts will be disabled by this action as well.

Granting Printer Access or Authority to Users and Groups

On the Printer Properties - Security page, assign domain users and/or groups appropriate access for that printer. The NT Users/Groups list box contains all of the group or user names within the selected NT domain. Select from this list to grant access to the printer and click . After the group has been granted access, its name will be moved from the NT Users/Groups list box to the Current Assignments list box.

By default, every user on the appliance has print access to any newly created printer.

Administrator Accounts for the Appliance

There are two types of administrator accounts on the appliance:

- **Local Administrator Accounts** - usernames and passwords are stored on the appliance and are not synchronized with any NT domain accounts.
- **Domain Administrator Accounts** - usernames and passwords are synchronized with NT domain

accounts.

If NT domain authentication is enabled on the Microsoft Networking Settings page, both local and domain administrator accounts can be added to the appliance.

If NT domain authentication is disabled on the Microsoft Networking Settings page, only local administrator accounts can be added to the appliance.

Windows 2000 and Windows XP Security Integration

The Print Server Appliance 4200 integrates into domains controlled by Windows 2000 or Windows XP servers in the same manner that an NT 4.0 server does. The appliance uses SSO (Single Sign-on) to authenticate itself and users to the domain controller; consequently, the Windows 2000 or Windows XP server must be configured to support that authentication protocol. The appliance also requires that the domain operate with a WINS server for resolving Netbios names. Currently, the appliance does not support Kerberos authentication.

LPD

Links within this document:

Links to related documents:

This feature enables the Line Printer Daemon (LPD) protocol (sometimes referred to as "BSD compatible" network printing) to spool and control print jobs on the appliance from any RFC 1179-compliant LPD client including (not all LPD implementations are RFC 1179-compliant):

- HP-UX 10.x and above
- Solaris
- Linux
- AIX 4.3 and above

LPD print jobs are visible to Windows clients, but Windows users cannot manage (pause, resume, restart or cancel) them unless that user has the appropriate administrative rights on the appliance.

Both UNIX and Windows clients can simultaneously print to the same printer regardless of whether a printer driver has been associated with with printer.

As a default, LPD printing is enabled for all hosts. Administrators can restrict printing to a certain set of hosts, if desired.

Note: The appliance does not process control files for printing options such as number of copies. Instead it will pass this information straight through to the target device and the target device may choose to handle or ignore these options.

LPD Settings

On the LPD Settings page, the administrator can enable or disable LPD printing.

Field Name	Description
Disable LPD printing	Disables LPD printing and print job management from any and all hosts.
Enable LPD printing from ALL hosts	Enables LPD printing and print job management from any and all hosts (default).
Enable LPD printing from specified hosts	Enables LPD printing and print job management from the hosts entered in the Host Names list on this screen. If this is selected, the fully qualified domain name or IP address of each computer system using LPD must be entered. (Without the fully qualified name, this will not work.)
Host Name or IP Address	Enter the hostname or IP address to be added to the "Specified Hosts" list. This field is only active when "Enable LPD printing from specified hosts" is selected. For example, hostname.domain.com or 1.160.10.240.
Specified Hosts	Host names permitted to print and manage print jobs using LPD. This field is active only when "Enable LPD printing from specified hosts" is selected.

Configuring LPD Printing

To enable or disable LPD printing, follow these steps:

1. Log on to the Administrator page of the web interface.
2. On the menu, under Network Settings click LPD Settings.
3. Complete the fields as described above.

Managing Printers

Links within this document:

Links to related documents:

Printers Option

After Printers is selected from the menu in the web interface, the Printers page is displayed. On this page, administrators can:

- [view and manage print jobs](#)
- [add printers](#)
- [modify existing printers](#)
- [delete a printer (and all of its jobs)](#)

Printers Page	
Field Names	**Description**

Printer Name	Name of the printer as entered in the Printer Name field on the Add Printer page in the web interface. This name is displayed in Network Neighborhood as an available printer configured on the appliance. The printer name can be up to 79 characters long, including alphanumeric characters and the following special characters: _ - . ?. (Printer names longer than 12 characters might cause problems with Windows 9x and ME or MS-DOS clients. Various LPD implementations might also have length restrictions.)
IP Address or Hostname	IP address or hostname of the printer that will be servicing the print jobs in this queue. This may be the IP address or the DNS name of the network printer. In order to use the DNS name, a DNS server address must be configured on the appliance in the Microsoft Networking Settings page.
Status	Status of the printer: ● Active: indicates the printer is available and ready to print if a print job is sent to it ● Paused: the administrator has paused printing for this specific printer
Jobs	Number of print jobs waiting to be printed on the corresponding printer.
Printer Properties	Displays the Printer Properties - General page. Use this page to: ● display and/or modify the properties of a selected printer, including the printer's name, IP address, or description ● pause and resume printing from the printer ● print a test page
View Jobs	View print jobs for a specific printer. The Print Jobs page will be displayed.
Delete Printer	To delete a printer from the appliance, follow these steps: 1. Find the printer to delete from the appliance and click on that same line. 2. The message, "Are you sure you want to delete the printer and all of its print jobs?" is displayed. 3. Click . The selected printer and all of its print jobs will be deleted.

Adding a Printer to the Appliance

While there is no fixed limit on the number of printers that can be attached to the appliance, many factors impact performance in your environment and create an effective limit for your environment and use model. Factors that impact performance include the number of users printing through the appliance, how frequently the users print, whether NT Domain security is enabled, the size of the jobs being printed, the types of jobs being printed (for example, color print jobs), and how many printers are installed on the appliance.

Both UNIX and Windows clients can simultaneously print to the same printer. UNIX clients ignore any Windows driver selections.

The following printer drivers are factory-installed. These drivers, and any others that have been added to the appliance, can be associated with a printer on the appliance.

- HP LaserJet 4 series printers
- HP LaserJet 5 series printers
- HP LaserJet 6 series printers
- HP LaserJet 4000 series printers
- HP Color LaserJet 4500 series printers
- HP LaserJet 5000 series printers
- HP LaserJet 8000 series printers
- HP Color LaserJet 8500 series printers

To add a printer, follow these step:

Note: If Domain Authentication is not enabled (on the Microsoft Networking Settings page), the administrator logged onto the PC must have a local administrator account with the same name and password as their domain account. If Domain Authentication is enabled, the administrator must either have a local account on the appliance with the same

username and password as their domain account, or a domain account for the administrator must be added to the appliance.

1. Select Printers under Print Services on the menu.

2. Click [+) add printer]. The following three pages will be displayed:

- ❍ **Identify Printer**: Enter the IP address or hostname and the network connection for the printer being added.

Identify Printer Page	
Field Names	**Description**
IP Address or Hostname	IP address or hostname of the printer that will be servicing the print jobs in this queue. This may be the DNS name or the IP address of the network printer (for example, hpprinter.mycomputer.com or 192.0.0.192) . In order to use the DNS name, a DNS server address must be configured on the appliance in the TCP/IP Network Settings page. The name must be alphanumeric and can contain dashes (-) and periods (.).
Network Connection:	■ HP JetDirect internal card or single-port external box: Select this if the printer has an internal HP JetDirect print server card, or is connected to an external single-port HP JetDirect print server. ■ HP JetDirect 3-port external box: Some external HP print servers support more than one printer (for example, the HP JetDirect 500X). For these cases, choose which port the printer is connected to. ■ Other print server: Select this option if the target print server is not an HP JetDirect print server. Many print servers will work with the default selections of Hewlett-Packard JetDirect Print Server selected. If, however, the print jobs do not appear on the printer, select this option and complete "Remote Queue Name" with the remote queue name recommended by the print server manufacturer. Refer to the lpr or UNIX printing section of the print server manual. (For example, Xerox printers use a remote queue name of "LP".)

❍ **Printer (Queue) Name**: Enter the printer name and description.

Printer (Queue) Name Page	
Field Names	**Description**
Printer Name	The printer name is displayed in Network Neighborhood as a printer configured on the appliance. It can be up to 79 characters long, including alphanumeric characters and the following special characters: _ - + , . (Printer names longer than 12 characters might cause problems with Windows 9x and ME or MS-DOS clients. Various LPD implementations might also have length restrictions.)
Printer Description (optional)	Description of the printer.
Hide this printer in Network Neighborhood	Select this option to hide this printer's name in Network Neighborhood for clients. (This does not prevent the printer from being used, just from being displayed in Network Neighborhood.)
Print Banner Page with each print job	Select this option to insert a banner page at the beginning of each print job. (The contents of the banner page are not configurable.)

❍ **Printer Driver for Windows Point and Print Clients**:

Printer Drivers for Windows Point and Print Clients Page	
Field Names	**Description**
Client Printer Driver	Displays all printer drivers currently installed on the appliance, and highlights the driver currently associated with the specified printer. To change the driver for the printer, highlight a different driver and click **finish**. Or, add a new driver by clicking **new driver** on this page.
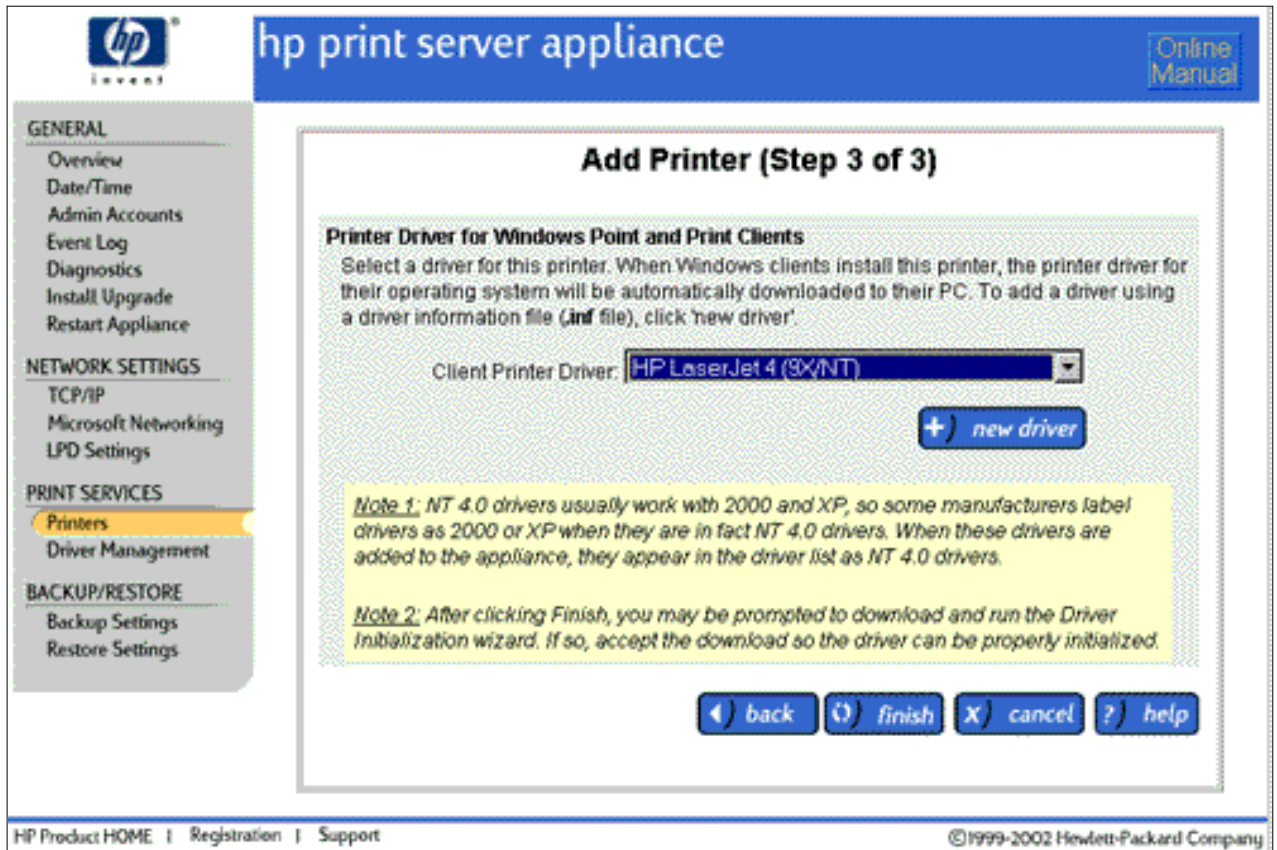
Select the printer driver for the printer being added. If the driver is displayed in the Client Printer Driver field, click [finish]. The Printers page will be displayed.

If the printer driver for the printer is not displayed in the drop down list on this page, click [new driver]. A security warning is displayed. Click "Yes" to continue and then follow the steps to add the printer driver and associate it with the printer just added.

Note: After the appliance has been configured and drivers have been associated with printers, the configuration should be backed up.

Viewing and Managing Print Jobs

Use the Print Jobs page to view the jobs for a selected printer:

Print Jobs Page	
Field Names	**Description**
File Name	Name of the file(s) or print job(s) for this printer.
User	Name of the client user who submitted each print job.
Size	Size of the print job (in bytes).

Status	Status of the print job:
	• Printing: currently printing on the printer
	• Paused: user paused the print job
	• Spooling: job is being spooled to the appliance by a client
	• Queued: job is queued and is waiting to be printed
	• Unknown: error occurred; unknown status (the user should delete the print job with this status)

To manage print jobs for a printer, follow these steps:

1. Under Print Services on the menu, select Printers.

2. Find the appropriate printer and click [icon] for that same line. The Print Jobs page is displayed.

3. To delete a print job, click [icon] on the line for the print job.

4. Click refresh to update the page or click [icon] to return to the Printers page.

Printer Properties

The following tabs are available at the top of the page when Printer Properties is selected for a printer:

➜General (default)
➜Drivers
➜Security

Printer Properties - General Page

The General page appears when "Printer Properties" is selected on the Printers page for a specific printer. Use this page to:

- display and/or modify the properties of a selected printer, including the printer's name, IP address, or description
- pause and resume printing from the printer
- print a test page

Printer Properties - General Page	
Field Names	**Description**
IP Address or Hostname	IP address or hostname of the printer that will be servicing the print jobs in this queue. This may be the DNS name or the IP address of the network printer (for example, hpprinter.mycomputer.com or 192.0.0.192) . In order to use the DNS name, a DNS server address must be configured on the appliance in the Network Settings page. The name must be alphanumeric and can contain dashes (-).
Printer Description (optional)	Description of the printer.
Network Connection:	- HP JetDirect internal card or single-port external box: Select this if the printer has an internal HP JetDirect print server card, or is connected to an external single-port HP JetDirect print server. - HP JetDirect 3-port external box: Some external HP print servers support more than one printer (for example, the HP JetDirect 500X). For these cases, choose which port the printer is connected to. - Other print server: Select this option if the target print server is not an HP JetDirect print server. Many print servers will work well with the default selections of Hewlett-Packard JetDirect Print Server. If, however, the print jobs do not appear on the printer, select this option and complete "Remote Queue Name" with the remote queue name recommended by the print server manufacturer. Refer to the lpr or UNIX printing section of the print server manual. (For example, Xerox printers use a remote queue name of "LP".)
Hide this printer in Network Neighborhood	Select this to hide this printer's name in Network Neighborhood for clients. (This does not prevent the printer from being used, just from being displayed in Network Neighborhood.)
Print a banner page with each print job	Select this to print a banner page preceding every print job. (The contents of the banner page are not configurable.)
Pause printing from this printer	Check this box to pause printing from this printer. To resume printing from this printer, clear this box.

To make any changes to this page, follow these steps.

1. Under Print Services on the menu, select Printers.

2. Click for the printer.

3. If desired, make any changes to the printer's properties.

4. If desired, click to print a test page. For more information about test pages, see Diagnostics (under General on the menu).

5. Click . The Printers page is displayed again.

Printer Properties - Drivers Page

The Printer Properties - Drivers page appears when "Printer Properties" is selected for a printer, and then the Drivers tab at the top of the page is selected.

The Drivers page displays all printer drivers that are installed on the appliance. A different printer driver can be selected in the list of already installed drivers for the specified printer. (See also Printer Driver Management.)
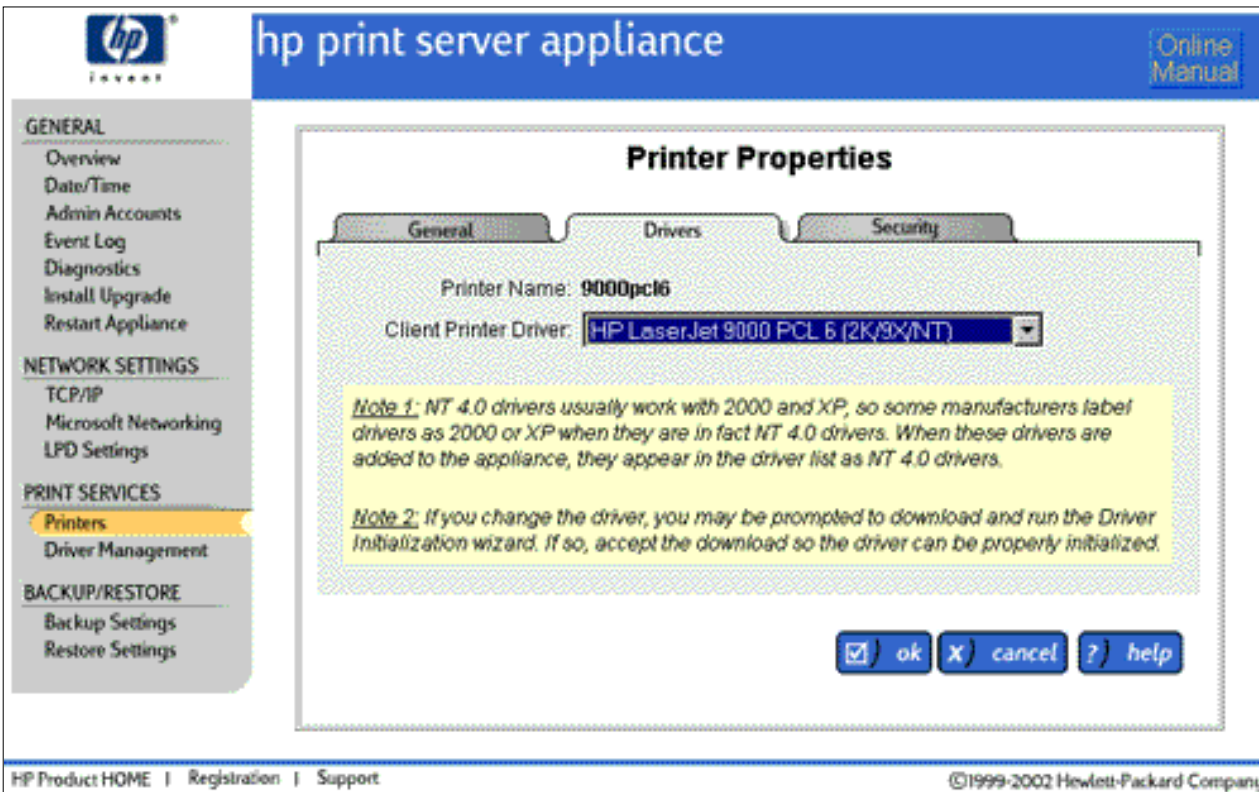
Printer Drivers and Upgrading from Firmware Version 2.2.xx

If upgrading to firmware version 2.3.xx, drivers installed on the previous version of firmware should be initialized after

the firmware is upgraded to ensure proper driver performance. Even if the driver was working on the older version of firmware (2.2.xx), it is recommended that you initialize the driver after the firmware is upgraded. Go to the Printers page and click ⬛ for that printer. Then select Drivers. In the drop-down list, select the default printer driver (HP LaserJet 4) and click ☑ ok . Then, select the original driver and click ☑ ok again. If this driver has not been initialized you will be prompted to initialize it. This will need to be done on a printer-by-printer basis.

Once a driver has been initialized, it will not have to be initialized again. But, each printer associated with that driver will need to be re-associated with the driver in order for the initialized settings to take effect. After a printer has been re-associated with an initialized driver, all driver configuration settings for that printer will need to be reset.

Printer Properties - Drivers Page	
Field Name	**Description**
Printer Name	Name of the printer as entered in the Printer Name field on the Add Printer page in the web interface. This name is displayed in Network Neighborhood as an available printer configured on the appliance.
Client Printer Driver	Displays all printer drivers added to the appliance, and highlights the driver currently associated with the specified printer. To change the driver for the printer, highlight a different driver and click ☑ ok .

Printer Properties - Security Page

The Printer Properties - Security page appears when "Printer Properties" is selected for a printer and then the Security tab at the top of the page is clicked. The Security page shows printer security information if NT Domain security is enabled (an NT domain is specified on the Microsoft Networking Settings page).

Note: Microsoft Windows 2000 and XP permissions that do not map directly to the four access levels of Windows NT (Print, Manage, Full Control, and No Access) appear as "Special Access".

Printer Properties - Security Page	
Field Name	**Description**
List Names from	The drop-down list contains names of the primary domain and all trusted domains.
Type of Access	Lists possible access rights that can be assigned to users and/or groups. Highlight the desired access level and then select the user(s) and/or group(s) in the NT Groups field.
NT Groups	Shows all of the NT groups on the domain specified in the above field. To show users also, click . After the Type of Access is selected, rights can be assigned to a group or user. Highlight the group or user and click . The user or group will be added to the list shown under Current Assignments with the level of access indicated. (To highlight multiple groups/users, use the Control or Shift key.)
Current Assignments	Lists all groups and/or users with their access rights. Valid access levels are: - Print (print, pause, and delete your own print jobs) - Manage Documents (print, pause, and delete other user's print jobs) - Full Control (print, pause, and delete other user's print jobs, delete printers, and change security settings (using native NT tools)) - No Access - Special Access (for some Windows 2000 and XP permissions that do not map directly to the above four permission levels)

Printer Drivers

Links within this document:

➡ Printer Driver Management
➡ Adding New Drivers to the Appliance

Links to related documents:

➡ System Messages

Printer Driver Management

Links within this document:

➜ Driver Name Mismatch
➜ Security Warning When Adding New Drivers

Links to related documents:

➜ System Messages for Driver Management

Printer drivers are factory-installed, or they might already be loaded from a previously-added printer. Drivers that have been factory-installed support the following printers:

- HP LaserJet 4 series printers
- HP LaserJet 5 series printers
- HP LaserJet 6 series printers
- HP LaserJet 4000 series printers
- HP Color LaserJet 4500 series printers
- HP LaserJet 5000 series printers
- HP LaserJet 8000 series printers
- HP Color LaserJet 8500 series printers

All printer drivers added to the appliance are displayed on the Driver Management page. Drivers can also be deleted on this page.

Note: Drivers for Microsoft Windows NT 4.0 usually work with both Windows 2000 and Windows XP. Consequently, many vendors will label a driver as Windows 2000 or XP when the driver conforms to the NT 4.0 driver specification. Since there is no unique XP driver specification, drivers labeled by a printer vendor for XP will always appear as either NT 4.0 or Windows 2000 drivers. As a result, any of the following can occur:

- Windows 2000 drivers can show up as Windows NT drivers
- Windows NT drivers show up as Windows NT drivers
- Windows XP drivers show up as Windows NT or Windows 2000 drivers

Driver Management Page	
Field Name	**Description**
Shows installed printer drivers for	Specify an operating system to display printer drivers for that operating system only. Or, select "All Operating Systems" to display all printer drivers installed on the appliance.

Printer Drivers	List the printer drivers for the operating system specified above, or lists all printer drivers if "All Operating Systems" is chosen.
	Each driver can have only one name (the same as in the .ini file) regardless of the number or type of printers associated with it.
	If a driver displayed in blue is preceded with a "~" (tilde), that driver has been disabled by either the user or the system (in the case that it failed to initialize during its installation). When a driver is disabled, it can be associated with a printer but will not be downloaded to a client PC for point and print. (The user will be prompted to install a driver locally.)
	To enable a driver: • If the driver was disabled by the user, click ☑ enable. The driver can now be downloaded to a client's PC for point and print. • If the driver had been disabled by the system due to a failure during driver initialization, the user cannot enable this driver until it is successfully initialized. (A failure might be attributed to file corruption.) To initialize the driver, try installing the printer again. If the driver persistently fails to initialize then the printer created can still be used, but when clients connect to that printer they will be prompted to install the driver files for that driver locally. The end user will be required to provide driver files for a driver whose name matches the name of the driver associated with the printer on the appliance.

1. To access the Driver Management page, select Driver Management under Print Services on the menu.

2. Select the operating system for the driver(s) to be viewed or deleted (or select "All Operating Systems"). The corresponding drivers are displayed in the Print Drivers list box.

3. If desired, highlight the printer driver to delete, enable, or disable.

   Note: A driver cannot be deleted if it is currently associated with a printer. The HP LaserJet 4 printer driver can never be deleted.

4. Then click the appropriate button on the right.

   If adding a driver, a security warning is displayed. Click "Yes" to continue and then the New Printer Driver (Step 1 of 3) page is displayed.

Adding New Drivers to the Appliance

Links within this document documents:

➜ Adding a New Printer Driver

Links to related documents:

➜ System Messages for Driver Management

The appliance comes preloaded with numerous HP printer drivers. While these will cover many needs, other drivers may be required. This section discusses the procedure for adding drivers to the appliance.

Note: After the appliance has been configured and drivers have been associated with printers, the configuration should be backed up.

Adding a New Printer Driver

To add a driver to the appliance, click [+) add] on the Driver Management page. The New Printer Driver (Step 1 of 3) page is displayed. This page can also be accessed by clicking [+) new driver] on the Add Printer (Step 3 of 3) page.

Note: Before drivers can be initialized, Java Scripting must be enabled (in Internet Explorer, under: Internet Options-->Security (tab)-->Custom Level (button)-->Scripting-->Scripting of Java Applets (subheading).

- **New Printer Driver (Step 1 of 3)**:

New Printer Driver (Step 1 of 3)	
Field Name	**Description**
Driver setup information file	Type the path for the printer driver, or click browse. **Note:** An XP, 2K, or NT driver must be added before a 9x driver can be added.
Supported operating system	Specify the operating system for the driver being added. **Note:** The driver's operating system specified must never be above the operating system of the PC you are working from. For example, if you are working from an NT system, you can only add NT and 9x drivers. If you are working from an XP system, you can add XP, 2K, NT, and 9x drivers.

- **New Printer Driver page (Step 2 of 3):**

New Printer Driver (Step 2 of 3)	
Field Name	**Description**
Drivers	Highlight the driver to install and click **next**. **Note:** An XP, 2K, or NT driver must be added before a 9x driver can be added.
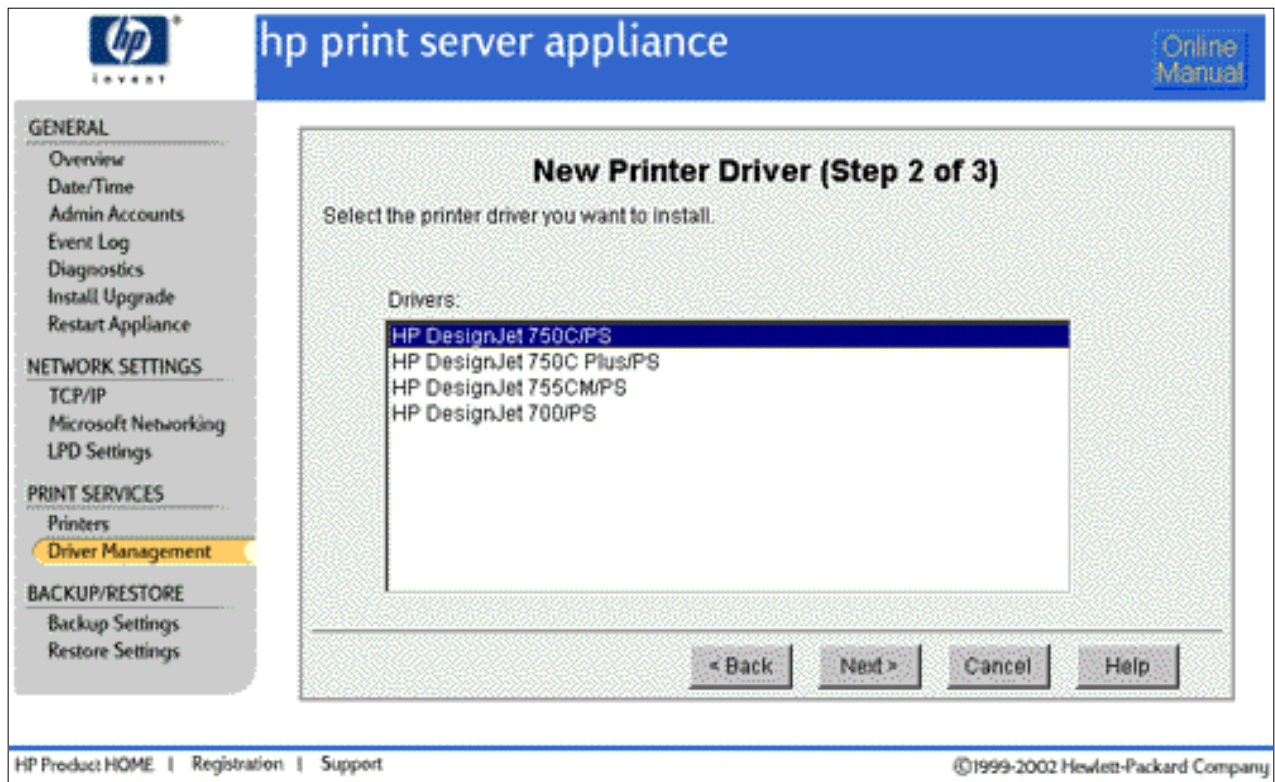
- **New Printer Driver page (Step 3 of 3):**

New Printer Driver (Step 3 of 3)	
Field Name	**Description**
Install a driver	Select additional printer drivers to install. Additional printer drivers can be installed for the client OS or any previous version of the OS. for example, if the client OS is XP, drivers for 2K, NT, or 9x can be installed. If the client OS is NT, only drivers for 9x can be installed.
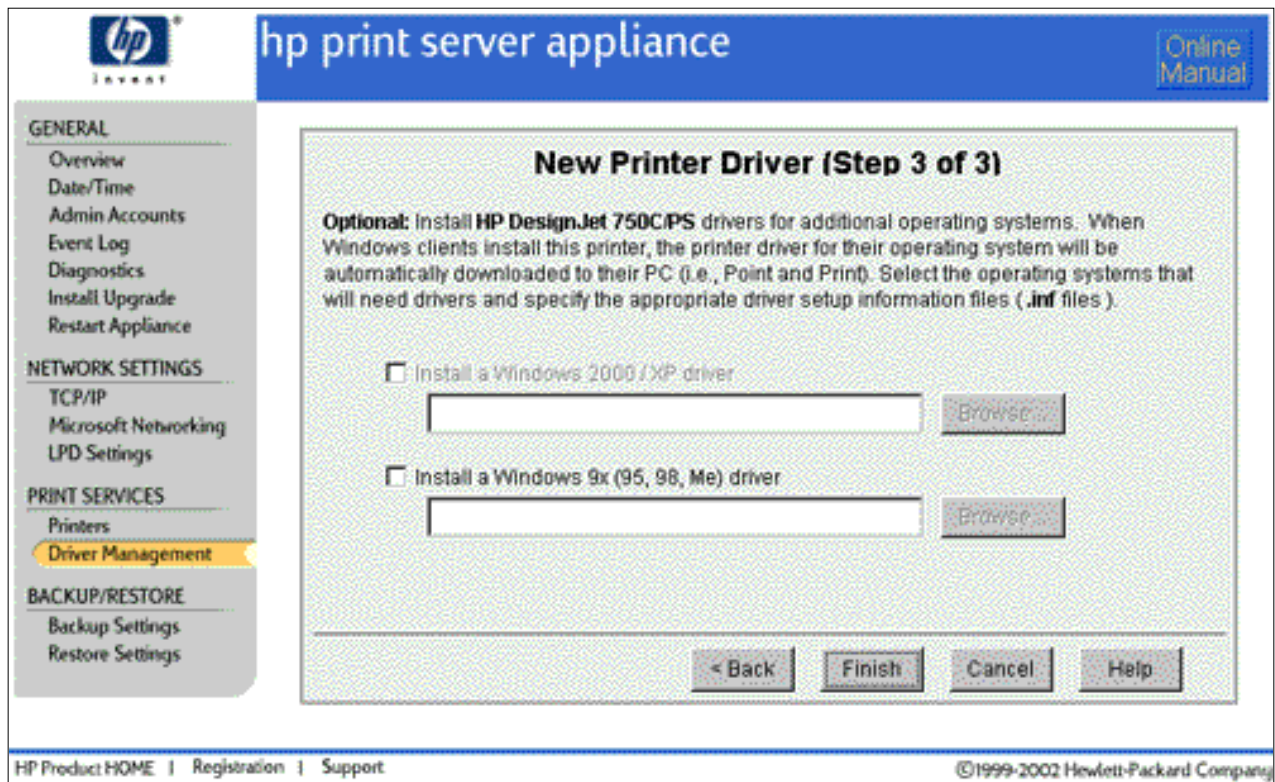
If no duplicate drivers were found during installation, the Installing Printer Drivers page is displayed. If, during installation, a duplicate driver has been found, you can either replace the current driver or keep the existing one.

Installing Printer Drivers page

While the drivers selected are being installed and initialized, this screen displays the status of each step. The final status indicates the status of the driver for the client OS. If initialization fails, the driver is displayed on the Driver Management page as disabled. This means that driver cannot be downloaded to client PCs for point and print. To try initializing the driver again, you must add the driver again through the Driver Management page.
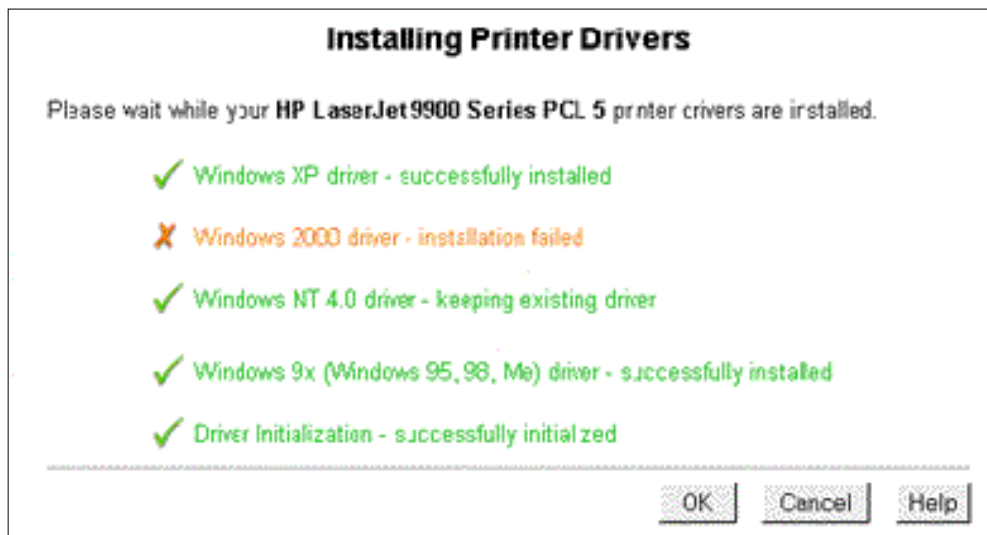
After the final status is displayed, click "OK".

Driver Name Mismatch

When a printer is being added to the appliance and a driver for that printer is selected (a .inf file), the name of the printer driver in the specified .inf file specified might not match the name of the printer driver in the other driver .inf files being installed for that same printer.

If you are trying to install both an NT and a 2K driver for the same printer, consider adding the same printer to the appliance twice: once with the NT driver and the second time (same printer with a different name) with a 2K driver.

If you are trying to install a 9x driver and the name does not match, it is possible that the driver names provided for different operating systems are not the same. If this is the case, please contact HP support.

Security Warning When Adding New Drivers

In order to add new printer drivers to the appliance, either through the Add Printer wizard or through the Driver Management page, executable files must be copied through the web browser onto the client PC.

The following security warning is displayed and must be accepted for these executable files to be downloaded. These files will be used to initialize printer drivers, which is an integral part of adding printer drivers to the appliance. If you choose not to accept this security warning, you will not be able to add printer drivers.
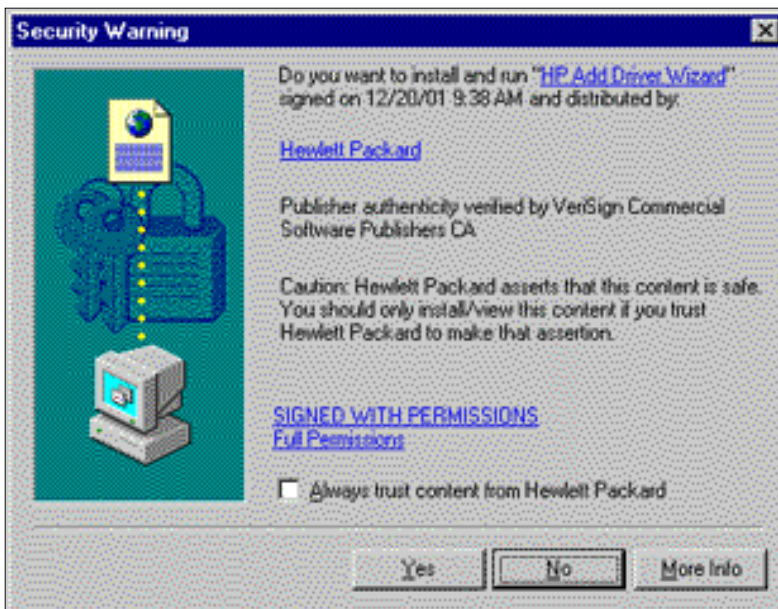
Configuring the Administrator Account

Links within this document:

Links to related documents:

Administrator Accounts

Use the Admin Accounts page to change passwords or add account names for local administrator accounts. There can be multiple administrator accounts for the appliance, but all accounts have the same privileges. There must always be at least one local administrator account on the appliance.

Note: The administrator account names and passwords are not related to the front panel password of the appliance, which is set and changed through the [front panel](#).

There are two types of administrator accounts:

- Local Accounts- added on the Admin Accounts page under the [Local Accounts](#) tab.

- Domain Accounts - added on the Admin Accounts page under the [Domain Accounts](#) tab. If Domain

Authentication has been enabled (on the Microsoft Networking Settings page), this page is displayed automatically when the administrator selects Admin Accounts.

Caution: If all local administrator passwords are forgotten, the only way to gain access to the appliance through a local administrator account is to reset the appliance to factory defaults (using the front panel). After the appliance is reset to factory defaults, all configuration information will be lost including network settings and printers, and the appliance will possibly revert to a previous version of the firmware.

To access the Admin Accounts page, follow these steps:

1. Log on to the web interface. (The default is "admin" for the username and "admin" for the password.)
2. On the menu under General, click Admin Accounts. The Admin Accounts page is displayed.

Admin Accounts - Local Accounts Page

The Local Accounts page lists all local administrator accounts for the appliance. Local accounts are stored on the appliance and are independent from domain accounts. There must always be at least one local administrator account on the appliance.

When an administrator accesses the appliance using a local account, an administrator name and password must be supplied for the appliance. (This username and password are passed over the network in cleartext.)

Note: In order to use NT native tools without NT domain authentication enabled (on the Microsoft Networking Settings page), the administrator logged onto the PC must have a local administrator account with the same name and password as their domain account.

Admin Accounts: Local Accounts Page	
Page Field Names	**Description**
Administrator Name	Lists all local administrator accounts added to the appliance.
Properties	Click next to an admin account to change the password. The User Properties (Local Admin Account) page will be displayed.
Delete	(Available when there is more than one administrator account) Click to delete the associated administrator account.

Adding a Local Administrator Account

In addition to the default local administrator account, other administrator accounts can be added on the Add an Administrator page.

To add an administrator account, follow these steps:

1. Log on to the web interface.
2. On the menu under General, click Admin Accounts. The Admin Accounts (Local Accounts) page is displayed. (If the Domain Accounts page is displayed, click the Local Accounts tab.)
3. Click [+) add]. The Add an Administrator page is displayed.
4. Complete the fields as described above.
5. Click [☑) ok]. The message "Administrator Account Added" is displayed.

Add an Administrator	
Page Field Names	**Description**
Administrator Name	Enter the new administrator name (must be unique for the appliance). The administrator name is case sensitive and can contain alphanumeric characters and the following special characters: ~ ` ! @ $ % ^ ( ) - _ { } .

Password	Enter the password. The password is case sensitive and can contain alphanumeric characters and the following special characters: ~ ` ! @ $ % ^ ( ) - _ { } . **Note:** The appliance will accept a null or blank password.
Confirm Password	Enter the password again to confirm it (if there is a password). Then click [✓ ok] to add this administrator to the appliance.
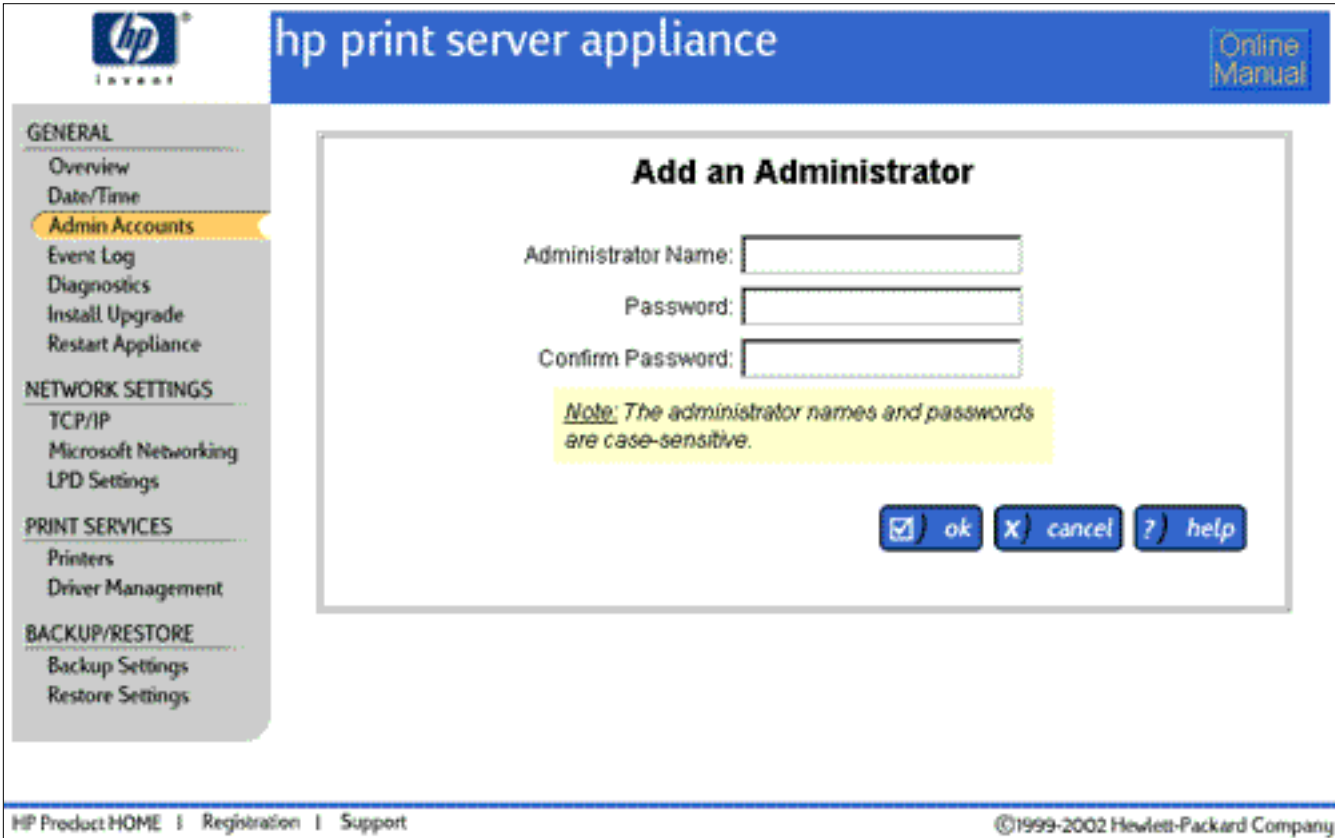
Changing the Password for an Existing Local Administrator Account

The password for an existing local administrator account can be changed on the Administrator Properties page:

1. Log on to the web interface.
2. On the menu under General, click Admin Accounts. The Admin Accounts (Local Accounts) page is displayed. (If the Domain Accounts page is displayed, click the Local Accounts tab.)
3. Click [icon] next to the administrator account to change. The Administrator Properties page for that account is displayed.
4. Type the new password in the New Password field.
5. Repeat the password in the Confirm New Password field.
6. Click [✓ ok]. The Admin Accounts page will be displayed.

Once the administrator account name and password have been changed, the current browser session is no longer authenticated and you will be prompted to re-enter your password. Re-connect to the appliance, using the new administrator account name and password.

Note: Local accounts on the appliance cannot be renamed. If necessary, delete the local account and then add it with its new administrator name.

Deleting an Administrator Account

To delete an administrator account, follow these steps:

1. Log on to the web interface.
2. On the menu under General, click Admin Accounts. (If the Domain Accounts page is displayed, click the Local Accounts tab.)
3. Click next to the administrator account to delete. Two confirmation messages are displayed.
4. Click . The Admin Accounts page will be displayed again.

Domain Accounts

If Domain Authentication is enabled on the Microsoft Networking Settings page, domain accounts can be added to the appliance. The Domain Accounts page will be displayed automatically when the administrator selects Admin Accounts. An administrator can select accounts from a domain and assign them administrator rights if necessary. These accounts are synchronized with the NT domain controller.

If Domain Authentication is enabled, the administrator must either have a local account on the appliance with the same username and password as their domain account, or a domain account for the administrator must be

added to the appliance.

Note: If Domain Authentication is not enabled, the Local Accounts page is displayed and the Domain Accounts will not be available.

Admin Accounts - Domain Accounts Page	
Field Name	**Description**
List Names from	The drop-down list contains names of the primary domain and all trusted domains.
NT Groups	Shows all of the NT groups in the domain specified in the above field. To show users also, click ![show users]. (To highlight multiple groups/users, use the Control or Shift key.)
Current Assignments	Lists all groups and/or users with administrator rights for the appliance.
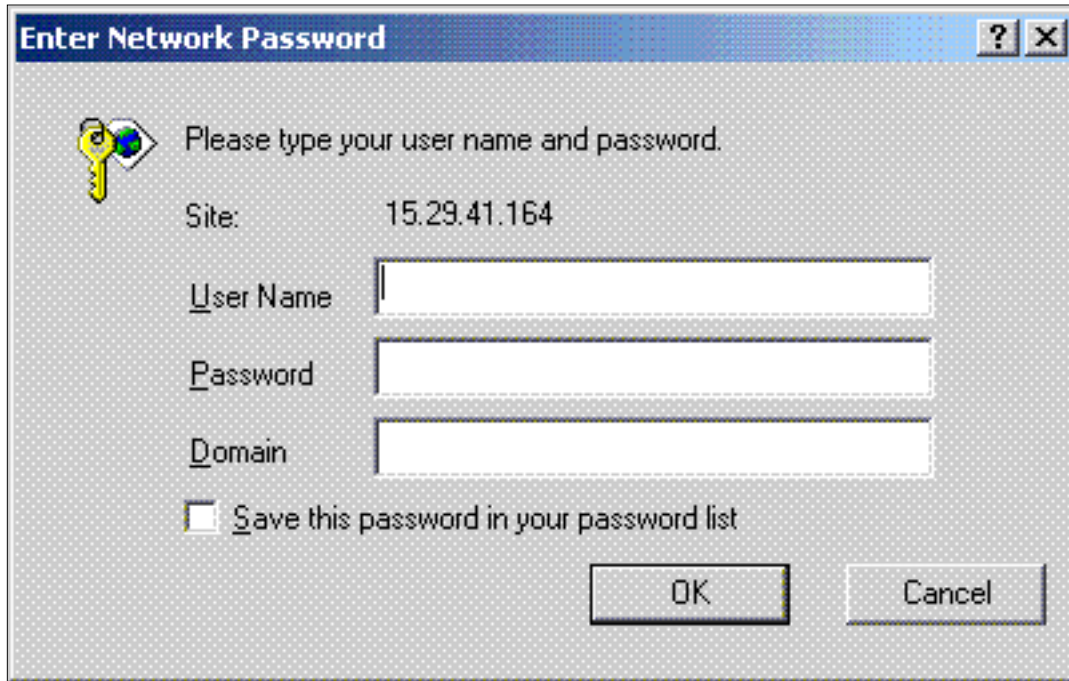
Note: If the Domain Controller is not available, administrators can use their local account.

Single Sign-On (SSO)

If the administrator is using Internet Explorer and the URL specified for the appliance is within the browser's local intranet, then all users with a domain administrator account, assigned either directly or through an admin group membership, will be able to use the appliance's web interface for management, without entering a

username and password. All users that are in the Domain Admins group for the domain in which the appliance is a member server automatically have domain administrator rights.

If the administrator is using Internet Explorer but the URL used to access the appliance is *not* within the local intranet, then the administrator will be prompted for domain account information. In this case, the security prompt given to the administrator will have three fields and the information entered here will be encrypted before being passed to the appliance (the screen shown is for Microsoft Windows NT 4.x; this screen might vary depending on your operating system):

Basic Authentication

If an administrator uses a browser other than Internet Explorer, SSO will not be supported; the browser will communicate with the appliance through Basic security and all security information will be passed to the appliance in cleartext. The administrator will be prompted with a Basic security password prompt having two fields and can then either choose to use a local administrator account username and password, or specify a domain username and password where the username includes the domain name (for example, domainname\username). In the latter case, a user with a domain administrator account on the appliance can access the web interface through a Basic security prompt without having a local administrator account. (However, this username and password are passed in cleartext.) (The screen shown is for Microsoft Windows NT 4.x; this screen might vary depending on your operating system.)

Enter Network Password   ? X

Please type your user name and password.

Site: alpo3

Realm   appliance

User Name   [   ]

Password   [   ]

☐ Save this password in your password list

[OK]   [Cancel]

Configuring Internet Explorer

By default, URLs (including IP addresses) with periods in the name (for example, http//www.hp.com and http://10.0.0.1) or URLs that go through a proxy server are not included in a browser's local intranet. An administrator can view or change their local intranet settings in the Internet Options page under the Security tab by selecting Local Intranet and clicking on the Sites button.

In order to have SSO work with IP addresses, the proxy must be bypassed for that IP address; enter the IP address under Tools-->Options-->Connections-->Proxy Server-->Advanced-->Exceptions. Also, under Security-->Sites, select "Include all sites that bypass the proxy server".

Backing Up, Restoring, Reseting, Rebooting, and Upgrading the Appliance

Links within this document:

Links to related documents:

Backing Up Network Settings and Printer Information

Saving the configuration parameters makes it easy to restore those parameters if the appliance must be replaced or if its configuration values are accidentally changed or lost. Use the Backup Settings page to save the following configuration parameters:

- administrator account usernames and passwords
- network settings
- printer information
- printer drivers

Use the following procedure to save the configuration parameters:

1. On the menu under Backup/Restore, select Backup Settings.

2. Click to begin the process. A File Download window appears.

3. At the next screen, click Save This File to Disk and click . A Save As dialog box appears.

4. Choose a file name, drive, and directory to hold the saved configuration.

5. Click [save]. The saved configuration is in binary format and cannot be edited using a text editor.

Now there is a backup file for the appliance, settings can be restored if required (see the next section).

Restoring Network Settings and Printer Information (Web Interface)

If configuration values have been accidentally changed or lost, a previously saved copy of the configuration parameters can be restored to the appliance. This technique can also be used to replace a appliance. A copy of the configuration parameters is saved while the appliance's settings and files are being backed up.

Use the following procedure to restore backup settings:

1. On the menu under Backup/Restore, select Restore Settings.

2. Select the settings to restore:

   ❍ Administrator Accounts (restores all administrator accounts previously added and saved in the backup of the appliance)

   ❍ Print Server Appliance Network Settings (restores all appliance address and name information)

   ❍ Printers and Printer Client Drivers: (restores all printer definitions and factory-installed drivers plus any added to the appliance for the Microsoft Point and Print feature)

3. Type the full path and file name of the saved configuration in the "Configuration File" field. Or, click Browse to locate and select the file.

4. Click [restore settings] to begin the restore process.

   -or-

   Click [cancel] to return to the Restore Settings page without restoring the configurations.

5. The Restore Configuration Successful window appears. Click [ok].

➡ System Messages for Restoring the Settings on the Appliance

Resetting the Appliance to Factory Defaults (Front Panel)
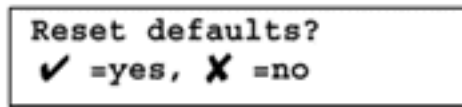
Once the appliance is configured, the configuration settings are retained in memory unless they are manually reset to factory defaults through the front panel of the appliance. This procedure will reset the appliance to its factory defaults. All configuration information will be lost, including network settings, queues, and any firmware upgrades. The administrator account name and password will be reset to factory defaults.

Note: If the appliance is reset to factory defaults, factory-installed drivers will be restored. All other settings (including network configuration, administrator settings, printers, and user-added drivers) will be lost.

1. Make sure queues are empty and no printing activity is taking place.

2. Press the Power button on the front panel of the appliance to turn it off.

CAUTION: To prevent possible file corruption on the appliance, do not simply disconnect the power cord.
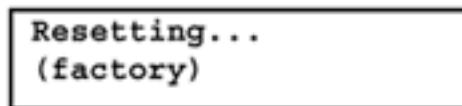
3. Turn on the appliance again by pressing the Power button.

4. During the restart sequence, when the front panel display reads "Configuring," press ▼. The following message is displayed:

```
Reset defaults?
✔ =yes, ✗ =no
```

5. Press ✔ to reset the appliance to its factory defaults. Press ✗ to cancel the restart process and retain all current configuration information. The appliance will then finish restarting.

   If ✔ was pressed and the factory default settings are being restored, the following message will be displayed during restart:

```
Resetting...
(factory)
```

➡ System Messages for Restarting the Appliance

Restarting (or Rebooting) the Appliance

Use the Restart Appliance feature to reboot the appliance. Before restarting the appliance, read the following:

- The restart process will take from three to six minutes. During this time, the appliance is not available for use and the connection to this browser session may be lost.
- Any print jobs actively being spooled from client users to the appliance will probably be lost and must be reprinted.
- Any print jobs currently spooled on the appliance will be retained.
- Any print jobs currently being de-spooled from the appliance to the printers may be restarted (automatically) once the appliance is ready to function.

Follow these steps to restart the appliance:

1. Under General on the menu, click "Restart Appliance".

2. Click [restart] to begin the reboot process.

Upgrading the Firmware on the Appliance

Before installing an upgrade, save the current configuration of the appliance using the Backup Settings feature.

CAUTION: This information should be automatically saved on the appliance, but if a catastrophic event occurs during the upgrade (for example, a power failure), it is possible that the configuration may be lost. This step is precautionary.

Note: If migrating to firmware version 2.3.xx, printers that had been added to earlier firmware versions (2.2.x or before) need to be associated with their driver again. To do this easily, go to the Printers page, click [icon] for

that printer, and then select Drivers. In the drop-down list, select any other driver and click ![ok] . Then, select the original driver and click ![ok] again.

Use the following procedure to install an upgrade:

1. Download the firmware image (*.hp) from the HP support website HP support website and save it on a local hard drive or CD (http://www.hp.com/cposupport). The exact file location will be needed for step 3.
2. Access the appliance's web interface and click Install Upgrade (under General on the menu).
3. On the Install Upgrade page, type the complete path to the firmware image on the local hard drive (for example, "C:\TEMP\UPGRADE.HP") or click Browse to find the firmware image downloaded in step 2.
4. Click Install Upgrade to upload the file to the appliance.
5. Restart the appliance immediately by selecting Restart Appliance under General on the menu. The restart process takes several minutes. During this time, ensure that power is not removed from the appliance. On the appliance's front panel, a series of messages will appear, including "Shutdown in progress ... Booting ... Configuring ... Verifying ... Validating ... Uncompressing ... Extracting ..." and so on. The standard display will appear when the appliance has been restarted.
6. When the appliance is ready to function, re-enter the network address if necessary. If no errors occur during the upgrade process, this is not necessary. All configuration information is retained.

➡ System Messages for Upgrading the Firmware

Diagnostics (Configuration Summary)

Links to related documents:

→ Troubleshooting the Appliance

Viewing and Printing Diagnostics From the Web Interface

This document explains how to view and print the diagnostics and configuration parameters about the appliance from the web interface. Diagnostics are shown on the Configuration Summary page. To access this page, select Diagnostics (under General) on the menu. This page can be printed using the print function of the browser.

The Configuration Summary page has the following sections:

→ General Information on the Configuration Summary Page
→ TCP/IP Network Configuration Information
→ Microsoft Networking Configuration Information
→ LPD Configuration Information
→ Printer Information
→ Installed Printer Drivers Information
→ Network Statistics Information

General Information on the Configuration Summary Page

Parameter	Description
Model Name	HP Print Server Appliance 4200
Model Number	Model number of the appliance.
Current Firmware Revision	Current version of firmware running on this appliance.
Base (Factory) Firmware Revision	Version of firmware that the appliance would be rolled back to if it was reset to factory defaults.
BIOS Version	Version of the BIOS on the device.
Manufacturing Date Code	Manufacturing information for use by the factory.
Serial Number	Serial number of this unit.
Hard Drive Information	Hard drive's identifier code.
Operating System Restored	Date and time of last restore.
Data Area Restored	Date and time of last restore.
Spool Area Restored	Date and time of last restore.

TCP/IP Network Configuration Information

Parameter	Description
IP Configuration Mode	How this unit was configured (manual or DHCP).
IP Address	IP address of this appliance.
Subnet Mask	IP subnet mask of this appliance.
Default Gateway	Default gateway of this appliance.
Domain Name Server (DNS) Address	IP address of the DNS server.
DNS Domain Name	Name of the IP domain to which this appliance belongs.

Microsoft Networking Configuration Information

Parameter	Description
Print Server Appliance Name	Name of the appliance.
Windows NT Domain or Workgroup	Microsoft (R) domain or workgroup on which this appliance is.
WINS Server Address	IP address of the WINS server.
NT Domain Authentication	Status of NT Domain authentication (checked is enabled or "on").
NT Domain Membership Status	Current status of the appliance's membership in the NT domain.
Domain Controller Auto Discovery	Status of auto discovery (checked is enabled or "on").
Specified Domain Controllers	List of domain controllers.

LPD_Configuration_Information

Parameter	Description
LPD Printing Mode	Status of LPD printing (checked is enabled or "on").
Specified LPD Hosts	List of host names permitted to print and manage print jobs using LPD.

Printers Information

This section consists of two lines:
- The first line lists the printer name, the IP address or hostname, the remote queue name, drivers the printer is bound to, the number of print jobs in the queue, and the printer status.
- The second line lists the security rights for the printer (who can print and at what level of access).

Installed Printer Drivers Information

This section lists the printer drivers installed on this appliance.

Network Statistics Information

Parameter	Description
MAC Address	Unique network hardware address for this appliance.
Total Packets Received	Total number of network packets this unit has received since the last reboot.
Total Packets Transmitted	Total number of network packets this unit has transmitted since the last reboot.
Bad Packets Received	Total number of improperly formatted network packets received since the last reboot. A large number of bad packets may indicate network problems.
Received Packets Dropped	Number of packets dropped since the last reboot because the receive buffer is full.
Framing Errors Received	Number of improperly formatted frames received since the last reboot.
Transmit Packet Errors	Total number of errors that occurred since the last reboot while attempting to transmit.
Transmit Packet Dropped	Number of packets dropped since the last reboot while attempting to transmit because the receive buffer is full.
Transmit Packet Overruns	Number of packets dropped since the last reboot while attempting to transmit because the receive buffer is full.
Transmit Collisions	Number of attempted transmit packets dropped since the last reboot because of excessive collisions.

To refresh this page, click .

Event Log

Links within this document:

- Event Log Page
- Buttons on the Event Log Page
- Fields on the Event Log Page
- Event Log Filters

Links to related documents:

Event Log Messages

The Event Log is accessible through the web interface under General. It contains information about the appliance to facilitate troubleshooting and maintenance at your site. In addition, this log helps HP customer support in resolving problems. Events are listed on the log. Event log filters are used to sort the events displayed.

Event Log Page

To access the Event Log, click Event Log on the Main Menu (under General) in the web interface on the appliance. The Event Log page is displayed:

Buttons on the Event Log Page

Button Name	Description
filter	Displays the Event Log Filters page where filters can be selected, based on the message level and type. Only those events with the Level(s) and/or Type(s) selected will be included on the Event Log page.
refresh	Displays any new events that have occurred. Use this button instead of the browser's Refresh button to ensure consistent behavior.
save	Saves the event log, which is a tab-delimited file (psalog.tab), to the directory specified. Once saved, the file can be dragged and dropped onto a Microsoft Excel spreadsheet, placing each event into its own row. The events can then be sorted. (The file can also be opened in a text editor but the results are not as clean.) **Note:** If "Filters are ON" is displayed at the top of the log, there might be events that are not displayed. Before the event log is saved, it is recommended to click [filter] and check all of the filters. Then review the log prior to saving it.
clear	Deletes all entries from the Event Log. A confirmation message is displayed. After the log is cleared, a new entry is displayed in the log with the date and time the log was cleared and the name of the administrator who cleared it. **Note:** If "Filters are ON" is displayed at the top of the log, there might be logged events that are not displayed. Before the event log is cleared, it is recommended to click [filter] and check all of the filters. Then review the log prior to clearing it.

[? help]	Displays online help for the Event Log.

Fields on the Event Log Page

Field Name	Description
Event Log (filtered log) or Event Log (full unfiltered log)	filtered log - On the Event Log Filters page, filters (Types and Levels) have been selected that have screened out messages that are currently in the Event Log. full unfiltered log - All of the messages in the Event Log are displayed; none have been filtered out.
Timestamps	The date and time of the event.
Level	Indicates the urgency of the message. One or more of the following levels of messages (determnined by the filter(s) selected on the Event Log Filters page) can be displayed: • CRIT (Critical error) - an error that affects the basic funtions of multiple users and/or administrators. For example, users cannot print or administrators cannot perform administrative functions. Typically caused by a complete failure of a network component. • ERR (Error) - an error that affects the functions of only one or more users or administrators, but not all. The majority of users or administrators can still perform their functions. • INFO (Informational) - an important system event. For example, a new driver has been added. (Events that occur more often, such as completing a print job, are not included.)
Type	Groupings of Event Log messages. One or more of the following types of messages (determnined by the filter(s) selected on the Event Log Filters page) can be displayed: • SEC (Security) - displays all Security-related messages • NET (Networking) - displays all Networking-related messages • ADM (Administrative) - displays all Administrative-related messages
ID	Log number for the event. Click on the message ID number to get more information about that message.
Message	Text message that describes the event.

Event Log Filters

Event Log filters are used to sort messages automatically so that only those messages of a certain type and/or level are displayed. Click [filter] to display the Event Log Filters page:
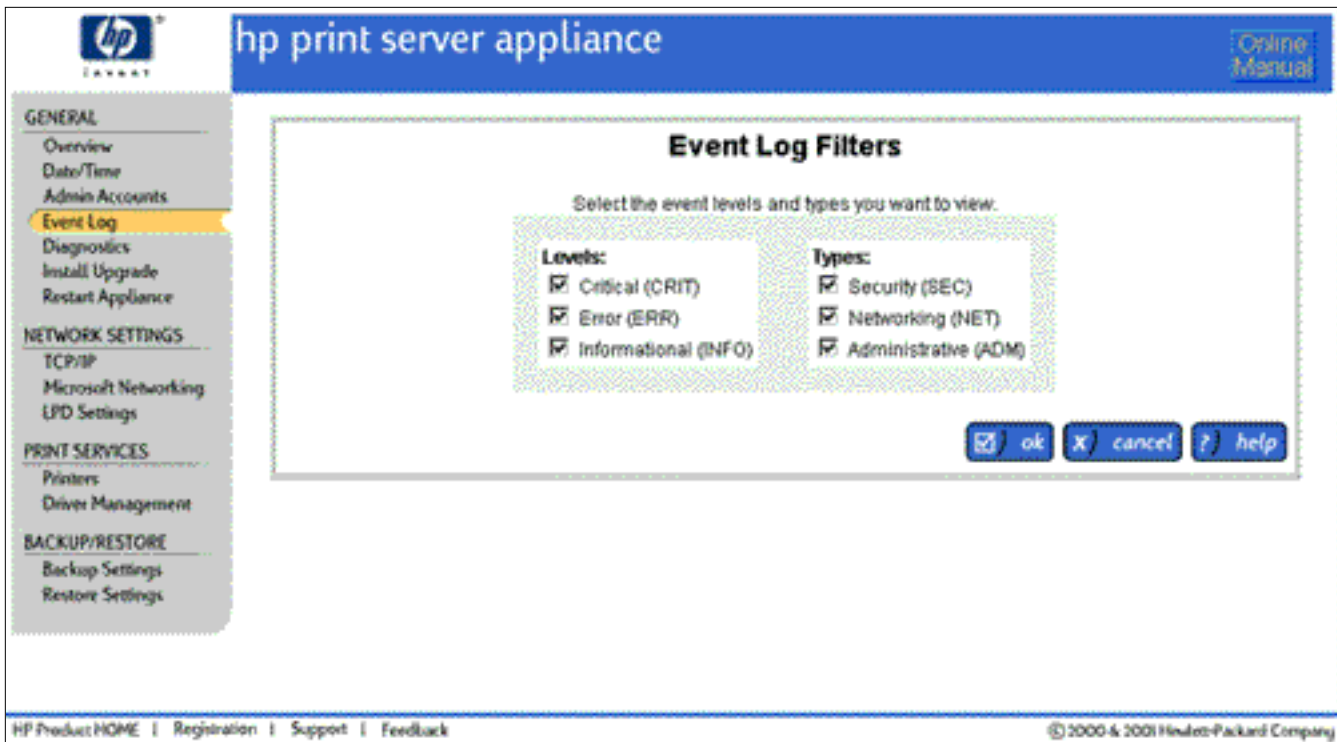
The following filters can be selected for events. One or more Type filters and one or more Level filters must be selected:

Levels (at least one must be selected):

- CRIT (Critical error) - an error that affects the basic funtions of multiple users and/or administrators. For example, users cannot print or administrators cannot perform administrative functions. Typically caused by a complete failure of a network component.
- ERR (Error) - an error that affects the functions of only one or more users or administrators, but not all. The majority of users or administrators can still perform their functions.
- INFO (Informational) - an important system event. For example, a new driver has been added. (Events that occur more often, such as completing a print job, are not included.)

Types (at least one must be selected):

- SEC (Security) - displays all Security-related messages
- NET (Networking) - displays all Networking-related messages
- ADM (Administrative) - displays all Administrative-related messages

System Messages

Links within this document:

➡   [Add Printer and Add Driver Wizards](#)

Under General:
➡   [Date/Time Page](#)
➡   [Administrator Account Page Problems](#)
➡   [Event Log Page](#)
➡   [Install Update Page](#)
➡   [Restart Appliance Page](#)

Under Network Settings:
➡   [TCP/IP Page](#)
➡   [Microsoft Networking Settings Page](#)
➡   [LPD Settings Page](#)

Under Print Services:
➡   [Printers Page](#)
➡   [Driver Management Page](#)

Under Backup/Restore:
➡   [Restore Settings Page](#)

Miscellaneous:
➡   [About the Indicator Lights (LEDs)](#)

Links to related documents:

➡ [Event Log and Messages](#)
➡ [Frequently Asked Questions](#)

Add Printer Wizard and Add Driver Wizard

Message	Explanation / Remedy
Invalid Driver Setup Information File: <filename> does not contain driver information for <specified OS name>. Please specify another driver setup information file (*.inf).	The .inf file specified conflicts with the user-specified operating system for that file. Verify that the correct operating system was specified with the .inf file you are entering.
Invalid Driver Setup Information File: No driver setup information file selected. Please enter a driver setup information file (*.inf).	The .inf filename is blank. Complete the filename.
Invalid Driver Setup Information File: <filename> is not the correct file type. This application can only install printer drivers using *.inf files. Please specify another driver setup information file (*.inf).	The file specified does not have a .inf filename suffix and is not viewed as a driver setup information file. Verify that the specified file is a driver setup information file with the appropriate .inf filename extension and retry.
Invalid Driver Setup Information File: <filename> could not be read or does not contain any printer drivers. Please specify another driver setup information file (*.inf).	The .inf file specified might be corrupted or it might not be a driver setup information file. Verify that the specified .inf file is a printer setup information file and retry. If the problem persists, try a different copy of the desired driver or consider using a different driver.
Install a Windows NT, 2000, or XP Driver First: You must install a <printer name> driver for Windows XP, Windows 2000, or Windows NT 4.0 before you install a driver for Windows 9x (Windows 95, 98, and Me).	The appliance has been unable to detect a Windows XP, 2K, or NT printer driver to correspond with this 9X driver. • If a Windows XP, 2K, or NT driver has not yet been installed, please install one before or with the specified 9X driver. • If a Windows XP, 2K, or NT driver has already been installed, it is possible that the driver name of the 9X driver does not match that of the higher operating systems. Verify that the driver specified is the correct driver. If it is the correct driver, please contact HP support.

Driver information not found:
The driver information in <filename> does not match the selected printer model <driver_name>. Please specify another driver setup information file (*.inf) for <OS>. For more details on driver name mismatches, refer to the Online Manual.

The name of the printer driver specified in the indicated file does not match the name of the printer driver in the other driver .inf files being installed.

If you are trying to install both an NT and a 2K driver, consider adding two printers to the appliance: one with the NT driver and the second (same printer with a different name) with a 2K driver.

If you are trying to install a 9x driver and the name does not match, it is possible that the driver names provided for different operating systems are not the same. If this is the case, please contact HP support.

Unauthorized to Perform this Action:
You are logged into the PC as : <user name>. That user does not have administrative rights on this print server appliance. To perform this action, you must be logged into Windows with a user name that has: * administrative rights on this PC * administrative rights (a corresponding admin account) on the print server appliance

In order to install printer drivers onto the appliance, they must be initialized. In order to run driver initialization, a user must:

- be logged onto their PC with a user account that has permission to install programs on that PC, and
- have a corresponding administrator account on the appliance.

Verify that the user account being used has these permissions.

Driver could not be initialized:
This driver could not be initialized on the print server appliance, so it has been disabled for automatic driver download (i.e., Point and Print). Clients will have to supply their own driver.

Try adding this driver again. Add the version of this driver that supports this PC's operating system first. Then add drivers for additional operating systems.

In order for drivers to be deployed to client machines via point and print, the drivers must be properly initialized. If a driver has failed to initialize it will be disabled by the appliance and cannot be enabled (but it can be re-installed).

A disabled driver may still be associated with a printer, but when a client tries to install that printer the driver files will not be provided by the appliance and the user will be prompted to provide the printer driver files.

Driver could not be initialized:
This PC has no FILE: port. A file port is required to perform the necessary driver initialization. Please re-install the file port on this PC before adding more drivers to the print server appliance.

This driver could not be initialized on the appliance, so it has been disabled for automatic driver download (i.e., Point and Print). Clients will have to supply their own driver.

In order for driver initialization to run, a FILE: port must be installed on your PC. Because the driver could not be initialized, it has been disabled. Please reinstall the FILE: port and then reinstall this driver.

Application error:
This application experienced an error <error description>. Try running it again. If the problem persists, consult the help file or the on-line documentation. (Possible errors are listed below.)

- Add printer driver failure
- Printer driver is not compatible with OS
- Insufficient memory
- Can't build driver info from *.inf file
- Initialization setup file queue failure
- Commit setup file queue failure
- Access denied
- Cannot find MFG
- File not found
- Server not found
- Driver not found

The application performing the driver installation and initialization has experienced an error. This error may be generated by a variety of problems from network communication issues to .inf file corruption.

Verify the following:

- that the appliance network configuration information are correct and running (for example, WINS server or manually specified domain controller addresses), and
- the provided .inf files are valid printer setup information files and that the correct operating system has been associated with each .inf file.

Try using a different copy of the desired driver or a different driver. If the problem persists, please contact HP support.

Driver does not match OS:
The driver information file <filename> that was specified for Windows 2000/XP is actually a driver information file for Windows NT 4.0. The specified driver has been installed, but it will appear in your driver list as a Windows NT 4.0 driver. This driver may or may not be compatible with Windows 2000/XP. HP recommends that you test the driver thoroughly. For more information about drivers, consult the online manual.

The driver you specified for Windows 2000/XP is really a Windows NT 4.0 driver and has been installed as such.

Although this driver will probably work, you may wish to determine if there is a "native" 2000/XP driver available for this printer. To do this, locate and install the native Windows 2000/XP driver in order to ensure this driver works properly with Windows 2000 and Windows XP.

If you choose not to find the native driver, make sure to test the driver thoroughly after it has been installed and initialized.

Driver does not match OS:
<filename> is not the correct driver information file for Windows NT 4.0. To add a driver for Windows NT 4.0, rerun this Add Driver wizard and specify the correct driver setup information file (*.inf). For more information about drivers, consult the online manual.

The .inf file specified for the Windows NT 4.0 driver is not a Windows NT 4.0 driver file.

You will need to re-run the Add Driver wizard and either specify the correct operating system for this .inf file, or specify a Windows NT 4.0 .inf file.

Adding drivers requires Java. Your browser doesn't have Java, or has disabled Java.

To enable Java, change your browser's settings.

If you're using Internet Explorer 6, you probably need to download Java. Search the Microsoft web site for Q299672 to learn how to install Microsoft's Java Component.

Before drivers can be installed, Java must be installed and JavaScript enabled in your web browser. JavaScript can be enabled in Internet Explorer, under:

Internet Options-->Security (tab)-->Custom Level (button)-->Scripting-->Scripting of Java Applets (subheading)

If you are an Internet Explorer 6 user, you will need to go to the Microsoft website to download and install the Microsoft virtual machine (go to the Microsoft website and search on "virtual machine"). Then make sure the virtual machine is turned on. In Internet Explorer, go to:

Internet Options-->Security (tab)-->Custom Level (button)-->Microsoft VM

Select any option other than "disable".

The driver you have selected needs to be initialized using Java. Your browser doesn't have Java, or has disabled Java.

To enable Java, change your browser's settings.

If you're using Internet Explorer 6, you probably need to download Java. Search the Microsoft web site for Q299672 to learn how to install Microsoft's Java Component.

Before drivers can be installed, Java must be installed and JavaScript enabled in your web browser. JavaScript can be enabled in Internet Explorer, under:

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Internet Options-->Security (tab)-->Custom Level (button)-->Microsoft VM

Select any option other than "disable".

Date / Time Page

Message	Explanation / Remedy
Invalid Date The date must be in mm/dd/yyyy format.	Retype the date in mm/dd/yyyy format.
Invalid Time The time must be entered in the format hh:mm:ss.	Retype the time in hh:mm:ss format.

Message	Explanation / Remedy
The necessary information to set the date and time was not found. The date and/or time fields are blank.	Complete both fields and click ✓ apply.
Invalid Time/Date The date and/or time fields contain non-numeric character(s).	The date and/or time fields may only contain numbers and the specified separator characters. Re-enter the date and/or time using the correct format and characters.
Your date and time settings have been applied	Confirmation message.

Administrator Account Page

Message	Explanation / Remedy
Invalid Administrator Name The Administrator Name must be alphanumeric and can contain the following special characters: ~ ` ! @ $ % ^ ( ) - + { } ' .	Retype the administrator name.
Passwords don't match The password and confirmation do not match.	Retype the password and confirmation password. Make sure the passwords entered in both fields are the same.
The administrator account name and password changes have been applied	Confirmation message.

Event Log Page

Message	Explanation / Remedy
Please select at least one level to view.	On the Filters page in the Event Log, at least one level must be selected: ● Critical (CRIT) ● Error (ERR) ● Informational (INFO) .
Please select at least one category to view.	On the Filters page in the Event Log, at least one category must be selected: ● Security (SEC) ● Networking (NET) ● Administrative (ADM)

Click here to view possible events in the Event Log.

Install Upgrade Page

Message	Explanation / Remedy
Please enter a valid path to the upgrade file, or click Browse to find the saved upgrade file.	When attempting to upgrade, no upgrade file was specified. Type the complete path to the firmware image (for example, "C:\TEMP\UPGRADE.HP") or click Browse to find the saved firmware image.
No file was provided with the upgrade request.	No upgrade file was transferred to the appliance. Retype the complete path to the firmware image (for example, "C:\TEMP\UPGRADE.HP") or click Browse to find the saved firmware image. If the filename is unknown, access HP's website and download the upgrade image (http://www.hp.com/cposupport).
The specified file is not a valid print server appliance upgrade file.	Retype the complete path to the firmware image (for example, "C:\TEMP\UPGRADE.HP") or click Browse to find the saved firmware image.
An I/O Error occurred while transferring the file.	The specified filename is not a valid upgrade file. Retype the filename and try again.
The upgrade file has been transferred successfully. You will need to restart your print server appliance for the upgrade to take effect.	Confirmation message.

Restart Appliance Page

Message	Explanation / Remedy
The restart of the print server appliance has begun. This system restart will take approximately 5-10 minutes. There will not be any web notification that the system has been restarted.	Confirmation message.

TCP/IP Page

Message	Explanation / Remedy
Invalid IP Address The IP address must be in the format xxx.xxx.xxx.xxx.	IP addresses are written as four numbers separated by periods, where the first number is between 1 and 255 and the other three numbers are between 0 and 255. Retype the IP address in the format xxx.xxx.xxx.xxx.

Invalid Subnet Mask The subnet mask must be in the format xxx.xxx.xxx.xxx.	Subnet masks are written as four numbers separated by periods, where the first number is between 1 and 255 and the other three numbers are between 0 and 255. Subnet masks must be well formed to match your network. Retype the subnet mask in the format xxx.xxx.xxx.xxx.
Invalid Gateway Address The gateway address must be in the format xxx.xxx.xxx.xxx. If the gateway address is unknown, use the appliance's IP address.	Gateway addresses are written as four numbers separated by periods, where the first number is between 1 and 255 and the other three numbers are between 0 and 255. Retype the gateway address in the format xxx.xxx.xxx.xxx. If the address is unknown, use the appliance's IP address.
Invalid DNS Server Address The DNS server address address must be in the format xxx.xxx.xxx.xxx.	Retype the DNS server address in the xxx.xxx.xxx.xxx format. Note: This must be the DNS server's IP address, not its friendly name. If the network does not have a DNS server, leave this field blank.
Invalid Domain Name The DNS Domain Name must be alphanumeric with no spaces. Dashes (-) and periods (.) are acceptable.	Retype the DNS Domain Name. Use only alphanumeric characters with no spaces. Dashes (-) and periods (.) are acceptable.
Restarting network, please wait You network settings have been updated	Confirmation message.

Microsoft Networking Settings Page

Message	Explanation / Remedy
Invalid Appliance Name The appliance name must be alphanumeric. Dashes (-) are acceptable. It can be up to 12 characters long.	Retype the appliance name.
Invalid WINS Server Address (wins address) The WINS server address must be in the format xxx.xxx.xxx.xxx.	WINS server addresses are written as four numbers separated by periods, where the first number is between 1 and 255 and the other three numbers are between 0 and 255. Retype the WINS server address in the format xxx.xxx.xxx.xxx.
Invalid Workgroup Name (workgroup)	The workgroup name entered is not valid. Retype the workgroup name.
Invalid Domain Controller Domain controller names must be alphanumeric with no spaces. Dashes (-) and periods (.) are acceptable.	Retype the Domain Controller Name, using only alphanumeric characters with no spaces. Dashes (-) and periods (.) are acceptable.
You must specify your domain administrator name and password to join the NT domain.	Specify the Domain Administrator Name and Domain Administrator Password.
Your Microsoft networking settings have been updated	Confirmation message

LPD Settings Page

Message	Explanation / Remedy
Invalid Hostname Hostnames must be alphanumeric characters with no spaces. Dashes (-) and periods (.) are acceptable.	Retype the hostname using only alphanumeric characters with no spaces. Dashes (-) and periods (.) are acceptable.
Your LPD printing settings have been updated	Confirmation message

Printers Page

Message	Explanation / Remedy
Invalid printer name The printer name can be up to 79 characters long, including underscores (_) dashes (-) periods (.) and question marks (?).	Retype the printer name.
The IP Address you entered (address) is the address of this appliance. Please enter the name or IP address for the printer you wish to add.	Each printer on the network has a unique IP address. This may be the printer's IP address or its DNS hostname. If a DNA hostname is being used, a DNS server address must be specified for the appliance on the TCP/IP page under Network Settings.
Invalid Printer Description Printer descriptions can contain alphanumeric characters, spaces, dashes (-), underscores (_), plus signs (+), commas (,), and periods (.).	The Printer Description field is optional. If completed, it can only contain alphanumeric characters, spaces, dashes (-) underscores (_) plus signs (+), commas (,) and periods (.).
Invalid Printer Address The printer address must be an IP address or a hostname. IP address must be in the format xxx.xxx.xxx.xxx. Hostnames must be alphanumeric with no spaces. Dashes (-) and periods (.) are acceptable.	Printer addresses use the same format as IP addresses or hostnames. Retype the printer address using the appropriate format. For IP addresses: xxx.xxx.xxx.xxx where the first number is between 1 and 255 and the other three numbers are between 0 and 255. For hostnames, use only alphanumeric characters with no spaces. Dashes (-) and periods (.) are acceptable.
You must specify the remote queue name for this printer.	When "Other print server" is selected, the "Remote Queue Name" field must be completed. Specify the "Remote Queue Name" of this printer.
You must specify a printer name for this printer.	The printer name can be up to 12 characters long, including underscores (_).
You must specify the address of this printer.	The printer address can only contain alphanumeric characters, spaces, dash (-) underscore (_) plus sign (+) ampersand (&), comma (,) and period (.).

A printer already exists with the name (name).	Each printer must have a unique name. Retype the name and make sure it's different from any other printer name on this appliance.
Changes have been made to the print queue. Please apply these changes before printing a test page.	An attempt was made to print a test page before applying the changes made on the printer Properties - General page.
A print server appliance test page has been queued to the (queue) printer queue.	Confirmation message after **print test page** was pressed.
Attempts to print to the printer failed.	A configuration (test) page was requested but LPR was not able to print the job on the selected printer. The disk space might be full, or the printer might be off or offline.
The printer you selected was not found.	An attempt was made to print to a printer that does not exist.

Driver Management Page

Message	Explanation / Remedy
Are you sure you want to remove the following drivers…?	One or more drivers were selected and **remove** was pressed. Confirm removal or cancel the operation.
The HP LaserJet 4 printer driver is essential and cannot be deleted.	The HP LaserJet 4 printer driver is a default driver and cannot be deleted.
The following drivers are in use and cannot be deleted.... To delete these drivers, you must either delete the printers that use them, or associate a different driver with those printers.	An attempt was made to remove a driver that is currently associated with one or more printers.
Cannot add drivers using this operating system and/or browser. To add drivers, your PC must be running one of the following OSs and browsers: - Windows NT 4.0, Windows 2000, or Windows XP - Internet Explorer 5.0 (or above) or Netscape 4.7 (or above)	A driver was being added to the appliance from an unsupported platform. A combination of the specified operating systems and browsers is needed in order to run the driver initialization functionality needed to install a new driver on the appliance.

Restore Settings Page

Message	Explanation / Remedy

Please enter a valid path to the configuration file, or click Browse to find the saved configuration file.

When attempting to restore settings, no configuration file was specified. Type the complete path to the configuration file (for example, "C:\TEMP\CONFIG.HP") or click Browse to find the saved file.

The specified file is not a valid print server appliance configuration file.

Retype the complete path to the configuration file (for example, "C:\TEMP\CONFIG.HP") or click Browse to find the saved file.

The configuration file was successfully restored on this appliance.

Confirmation message after restore.

Troubleshooting the Appliance

Links within this document:

Links to related documents:

Note: Always check the Event Log for messages when troubleshooting a problem with the appliance.

Hardware Problems

Num.	Condition	Possible Cause/Solution
1	The appliance does not power up.	Bad power cable or AC outlet. Replace cable and/or verify that the outlet is working properly. If the outlet and cable are good, contact HP in order to replace the unit.

2	I select DHCP and initialization continues. However, "DHCP No Reply, Press ✔ to continue" appears on the LCD display.	• The RJ-45 network cables are not connected. Securely connect the network cables. If the cable is securely connected, the network LED should blink when their is traffic on that network segment • A DHCP server could not be found on the network. Verify DHCP server configuration.
3	The Power On LED is lit, but the Network LED does not light.	• The RJ-45 network cables are not connected. Securely connect the network cables. • The cable may be faulty. See if another device can communicate on the network using the same cable. • Verify the hub or switch is connected and is working properly.
4	The Alert LED is lit.	• The appliance is not fully booted. Wait for the bootup process to complete. • A critical defect has been detected. Power cycle the unit to see if this corrects the problem. • If the Alert LED stays lit, contact HP.
5	I can't locate the appliance on the network.	• Make sure the appliance is configured with an IP address, a subnet mask, and a default gateway. • Make sure the Network LED is lit. • The RJ-45 network cables are not connected. Securely connect the network cables. • A network hub has lost AC power. Re-establish AC power to the hub. • The appliance is not powered up. Power up the appliance on and let it boot up.
6	We had a power outage. What do I need to do to recover?	At the time the outage occurred: Jobs that were spooled but not yet printing may need to be sent again from the client PC, after the appliance has been normally powered up again. These jobs should require no action, as they will print after the appliance is powered up again. Jobs in the middle of printing will resume printing when the appliance is powered up again. Jobs that were not yet spooled need to be resent. If print operations do not appear normal (new jobs do not spool correctly) after the outage, then power off the appliance and power it back up again. After a power outage or any other improper shutdown, the

appliance may experience so many errors in its file system that it rebuilds the disk from the default image. The printers, network configuration, and drivers will be not be automatically restored. The configuration must be restored manually using the Restore functionality with the last configuration manually backed up.

Configuration Problems

Num.	Condition	Possible Cause/Solution
1	I can't find the appliance in Network Neighborhood.	Make sure the appliance is configured with an IP address, a subnet mask, and a default gateway. See if the appliance can be pinged using its IP address. If so, then the problem is with Microsoft Networking. A delay of up to an hour may be required after first installing (or changing the appliance's name) before it appears in Network Neighborhood. If the PC is on the same network segment as the appliance, use the "Find Computer" tool located on the Start Menu. If there is a WINS server on the network, both the PC and the appliance should be configured with its address. A WINS server is critical for any environment with more then one network segment. If the appliance cannot be pinged, the problem is with the TCP/IP connectivity. The source of this problem could be that the appliance's TCP/IP configuration is wrong, the PC's TCP/IP configuration is wrong, or a piece of network equipment between the PC and appliance.
2	I can't print a test page from the appliance to a printer.	• Incorrect printer IP address or DNS name. Verify or correct the IP address. • Duplicate appliance IP address. Verify or correct the IP address. • Printer is offline or not present on the network. Verify network connectivity by pinging the printer and then place the printer online.
3	I get browser errors when trying to access the appliance.	A browser that is not supported or has known limitations may be in the problem. Check the supported web browsers to see if the browser is supported.
4	I can't locate the printer from the client.	The client is on a different subnet than the appliance. Verify that WINS is configured correctly in "Network Settings". The Network Neighborhood browser has not yet updated. Try accessing the appliance by selecting Start from the task bar, and select Find and Computer.

5	How do I know the printer driver I installed on the appliance was installed on the client? Or how can I tell whether the updated driver I installed on the appliance was successfully installed?	An updated driver will be copied to the client if the driver has the same name and a newer version or date. You can verify this by printing a test page from the client. The test page will list all the files associated with the driver along with version information.
6	I am trying to use the Properties page in network Neighborhood to configure the appliance, but the appliance seems to ignore some of my settings.	The appliance uses the printer configuration page on the Printer Properties window (which is displayed after right-clicking on a printer and then selecting Properties) for driver configuration changes and recognizes some other settings, such as security settings. However, the appliance does not recognize many of the settings if they are changed using these driver management tools.

- **General tab**
  - Comments text field - supported
  - Location text field - supported
  - Driver dropdown - the driver can be changed if and only if the driver is an initialized driver; otherwise, the administrator will be prompted to change the driver through the appliance's web interface so that the driver can be initialized.
  - New Driver button - the driver can be uploaded to the appliance, but will not be associated with this printer until the administrator uses the appliance's web interface to change the driver so that it can be initialized.
  - Separator Page button - not supported
  - Print Processor button - not supported
  - Print Test Page button - supported
- **Ports tab** (all buttons are disabled for remote printers)
  - Enable bi-directional support checkbox - not supported
  - Enable printer pooling checkbox - not supported
- **Scheduling tab**
  - Availability - should be left on "Always"; print jobs submitted during unavailable time will be deleted and not spooled.
  - Priority scale - not supported
  - Spool print document so program finishes printing faster toggle - supported
  - Print directly to the printer toggle - supported
  - Hold mismatched documents check box - not supported
  - Print spooled documents first check box - not supported (the appliance always uses this behavior)
  - Keep documents after they have printed check box

- not supported

- **Sharing tab**
  - ○ Not Shared toggle - not supported (may be selected but will be ignored)
  - ○ Shared toggle - supported
  - ○ Share Name text field - not supported
  - ○ Alternate Drivers - not supported
- **Security tab**
  - ○ Permissions button - supported
  - ○ Auditing button - not supported
  - ○ Ownership button - not supported

| 7 | I keep getting prompted for a password when I use a web browser to access the appliance even though the appliance is a member of a domain. | Whether you get prompted for a password and what the password prompt looks like are a function of your web browser and its configuration. If the appliance is a member of a domain, it will always ask your browser to use your existing Windows Domain authentication. Microsoft's Internet Explorer uses a concept of security zones to determine whether the web server (in this case, the appliance) is within the "Intranet Zone". There are a number of ways to include the appliance in the "Intranet Zone", but the easiest is to open:

Tools--> Internet Options-->Connections-->Lan Settings-->Advanced

and enter the full name, the IP address, and the short name in the "Exceptions" box. This will cause Microsoft's Internet Explorer to connect directly with the appliance and avoid your proxy server. By default, Internet Explorer considers direct connections in the "Intranet Zone". Consult your Microsoft Internet Explorer documentation to determine other ways to include the appliance in the "Intranet Zone". If you are using proxy servers in your environment and you want to use the single sign-on functionality, your web browser will need to be set up to bypass the proxy server for the appliance's host name (if it includes periods) and IP address. An administrator can view or change their local intranet settings in the Internet Options page under the Security tab by selecting Local Intranet and clicking on the Sites button.

Note: The single sign-on feature of the appliance only works with Microsoft's Internet Explorer. |
| 8 | I want to use a hyphen in the beginning of some of my appliance names, so that they will print first in a list of appliances. | The appliance name (entered on the Microsoft Networking Settings page) can contain up to 220 alphanumeric characters. It may also contain dashes (-) and periods (.). (The hostname cannot begin with a hyphen (-), but it can have a hyphen within the name. The hyphen cannot be the first character because the appliance name is is also used for the DNS name generation, and the hyphen character is not allowed as the first character in a DNS name.) |

9	I have a Windows 2000 environment and I am trying to integrate my appliances into it.	The appliance can use a Windows 2000 system for authorization and participate in a Windows 2000 domain in much the same manner as an NT 4.0 server can. The Windows 2000 system must be configured to support NTLM V1, which is a version of the authorization protocol used by Windows system.
10	I have a non-HP print server I am trying to use with my appliance. Will this work?	Yes, if the printer supports LPD. You may have to know the proper LPD remote queue name for the print server. Many print servers will work without specifying a remote queue name (use the default HP PRINT SERVER setting); however, some require a special string in order to work. The LPD remote queue name can be obtained from the print server vendor.
11	I am trying to configure the appliance using TELNET. Will this work?	No. You can assign IP addresses via DHCP, the front panel, and a web browser. After an IP address is assigned, you must use a web browser to finish configuring the appliance.

Printing Problems

Num.	Condition	Possible Cause/Solution
1	I can't print from a client to the intended printer, although I have done so previously.	- The selected printer may be paused. Unpause the printer. - Wait a moment and then resend the print job, which should then be printed successfully. - Go to the Printers Management Page and see if any print queues have an inordinate number of jobs waiting to be printed. If the jobs do not seem to be printing, delete a few and try sending a new job. - If NT Domain Security is enabled, the security settings may have changed. Verify that the user has authority to print. This can be done from the web management interface by selecting Printers->Printer Property Page-> Security. By default, the group "Everyone" has permission to print. If "Everyone" does not have permission to print, add it. - The appliance may be unable to communicate with a domain controller in order to verify the clients ID and password. Check the "Domain Membership Status" field on the "Microsoft Networking Settings" page to verify that the appliance can communicate with the domain controller.

2	I have not been able to print from any client to the intended printer.	- The IP address or printer name may not be correctly configured for the desired printer. Verify that the appliance can print to the printer by using the "print test page" functionality of the printer property page in the web interface of the appliance. If the test page does not print, there is a problem in the communication between the appliance and the printer. See more information about [TCP/IP network settings](#) or [Microsoft network settings](#). - The appliance may be unable to communicate with a domain controller in order to verify the clients ID and password. Check the "Domain Membership Status" field on the "Microsoft Networking Settings" page to verify that the appliance can communicate with the domain controller. - If NT Domain Security is enabled, the security settings may have changed. Verify that the user has authority to print. This can be done from the web management interface by selecting Printers->Printer Property Page-> Security. By default, the group "Everyone" has permission to print. If "Everyone" does not have permission to print, add it. - If NT Domain Security is enabled, verify that the group "Everyone" exists in the domain.
3	The printer's Property page in Network Neighborhood does not work properly. An error message appears whenever a change is accepted.	The user you are logged in as may not have the appropriate permissions to perform the operation. For NT Domain security, verify that the user you are logged in as is a member of the "Domain Admins" group. If you are not using NT Domain security, verify that there is an administrator account on the appliance with the same name and password as the user that you are logged in as.
4	A printer had to be taken off the network for repair, and it was replaced by one having a different IP address. Print jobs reach the queue but never print.	Open a web browser, point it at the appliance, and select the Printers page. Select the Printer Property page for that printer. Change the IP address or DNS host name for the printer and select Apply. If the printer was stopped in the middle of a print job, that job will be lost, but any other jobs in the queue will now print to the new printer.
5	The appliance is set up to use DHCP. When I powered it off and then powered it back up again, DHCP reassigned it to a different IP address than it had previously. Now the clients can no longer print. How can I avoid this?	Use a WINS server along with DHCP, so that when the appliance powers up it will always be reassigned the same IP address. If you are not using WINS, you may alternatively set the appliance IP address manually and have the DHCP administrator select an IP Address Pool range which excludes the appliance address. Or, have the DHCP administrator supply the appliance with an "infinite lease" duration for its assigned IP address.
6	I changed the printer name and now the clients cannot print.	Use the Windows Add Printer wizard at the clients and enter or browse to the new printer name. Also, delete the client's old printer driver which referred to the previous printer name.

7	The status of a print job is "Unknown" on the Print Jobs page in the web interface.	Delete the print job and resend it.
8	I am trying to print a large print file. Is there a maximum size of print job that the appliance will handle?	The appliance can process print jobs up to a maximum size of 2GB.
9	There are a lot of jobs spooled on the appliance. Is there a limit?	Up to 10,000 jobs can be spooled at a time, which might be further restricted by the disk space available on the appliance.
10	I am trying to print in Landscape mode, but the margins are offset.	If you have not done so, upgrade your firmware to version 2.3.xx and initialize the driver for that printer.
11	The performance of the appliance is very slow when connecting to the appliance via Network Neighborhood or when opening a printer's Property Page in Network Neighborhood.	Delays connecting to a printer via Network Neighborhood or displaying the Property page in Network Neighborhood are often caused by an incorrectly configured DNS entry for the appliance. If DNS is misconfigured, it can take 1-2 minutes for the appliance to respond to a request. The appliance requires entries in both the DNS server's forward and reverse lookup tables. You can verify the appliance's DNS configuration from a Windows NT or Windows 2K system command prompt by running the following commands: ● nslookup <applianceName.appliance-DNSdomain> ● nslookup <appliance-IP-Address> The first command verifies there is a DNS entry for the appliance's name and the second verifies that there is a DNS entry for the appliance's IP address. If you get a negative response from either of these commands, you need to correct your DNS configuration. If you do not receive a negative response, please contact HP support.
12	Jobs are getting stuck on the appliance for one of my printers.	The appliance uses LPD to send print jobs to its printers. If the print server connecting a printer to the network does not support LPD, jobs for that printer will get stuck on the appliance. You may need to upgrade the firmware of the offending print server or it may need to be replaced with a print server that supports LPD.

Printer Driver Problems

Num.	Condition	Possible Cause/Solution
1	I can't install the Windows 9x driver for a printer for which I already have a Windows NT, 2K, or XP driver installed.	Your Windows 9x driver may not have the same name in its .inf file as the Windows NT, 2K, or XP drivers. Please contact HP support.
2	I am using Internet Explorer 6 and am trying to install and initialize a driver. I keep getting a message about Java having to be turned on. How do I do this?	Before drivers can be installed, Java must be installed and JavaScript enabled in your web browser. JavaScript can be enabled in Internet Explorer, under: Internet Options-->Security (tab)-->Custom Level (button)-->Scripting-->Scripting of Java Applets (subheading) Since you are an Internet Explorer 6 user, you will need to go to the Microsoft website to download and install the Microsoft virtual machine (go to the Microsoft website and search on "virtual machine"). Then make sure the virtual machine is turned on. In Internet Explorer, go to: Internet Options-->Security (tab)-->Custom Level (button)-->Microsoft VM Select any option other than "disable".
3	I am trying to add a printer driver to the appliance, but I keep getting an "unauthorized to perform this action" error message.	In order to install drivers onto the appliance, a user must be logged onto their PC with a user account that has permission to install software on that PC, and have a corresponding administrator account on the appliance. If NT domain authentication is enabled (on the Microsoft Networking Settings page), administrator accounts on the appliance can be set up on the Domain Account page (in the appliance's web interface under Admin Accounts). If NT domain authentication is not enabled, the user must set up a local administrator account on the appliance, with a name and password that matches their NT user account.
4	I added a Windows 2000 driver to the appliance, but it did not show up in the driver list.	Drivers for Microsoft Windows NT 4.0 usually work with both Windows 2000 and Windows XP. Consequently, many vendors will label a driver as Windows 2000 or XP when the driver conforms to the NT 4.0 driver specification. As a result, Windows 2000 drivers can show up as Windows NT drivers.
5	I added a Windows XP driver to the appliance, but it did not show up in the driver list.	Drivers for Microsoft Windows NT 4.0 usually work with both Windows 2000 and Windows XP. Consequently, many vendors will label a driver as Windows 2000 or XP when the driver conforms to the NT 4.0 driver specification. Since there is no unique XP driver specification, drivers labeled by a printer vendor for XP will always appear as either NT 4.0 or Windows 2000 drivers.

| 6 | I am getting the "Driver information not found" error when I try and add two drivers to the appliance at the same time? | When you add multiple drivers to the appliance at the same time, the names for those drivers (as recorded in their .inf files) must match. If the driver names in the .inf files do not match, you will receive a driver installation error indicating the discrepancy. These drivers will need to be installed separately.

If you are trying to install both an NT and a 2K driver for the same printer, consider adding the same printer to the appliance twice: once with the NT driver and the second time (same printer with a different name) with a 2K driver.

If you are trying to install a 9x driver and the name does not match, it is possible that the driver names provided for different operating systems are not the same. If this is the case, please contact HP support. |

About the Indicator Lights (LEDs)

There are four indicator lights (LEDs) on the front of the appliance.

LED Normal Conditions

LED	LED Name	Description
	Power LED	ON when power is supplied to the appliance and it is turned on.
	Network Activity LED	LIT when there is a connection between the appliance and other network devices. BLINKS when there is network activity between the appliance and other network devices.
	Disk Activity LED	ON when there is disk activity on the appliance.
	Alert LED	OFF during normal operations (ON during bootup and shutdown).

LED Problem Conditions

Condition	Possible Cause/Solution

Power LED is not lit.	Power failure. Restore AC power. Bad power cord or power cord unplugged. Verify and replace cord.
Network LED never blinks.	Network connection is bad. Verify network cable connections, replace cable.
Alert LED remains lit after bootup is completed.	Critical failure is detected. Note the message on LCD front panel. Power cycle the unit. If the problem persists, contact HP.

Frequently Asked Questions

Links within this document:

Configuration

1. **Can I use Web JetAdmin to manage my appliance?**

2. **Does the appliance support bootp or rarp?**

3. **What features on the Properties Page in Network Neighborhood are supported by the appliance?**

4. **Why do I get prompted for a password when I use a web browser to access the PSA even though the PSA is a member of a domain?**

5. **Can I use a hyphen in the appliance name?**

6. **Can the appliance integrate into a Windows 2000 environment?**

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8. **Is the appliance compatible with non-HP print servers?**

Printing

1. **Is there a maximum size print job I can send to the appliance?**

2. **How does the appliance work with my existing print spooling strategy?**

3. **What is the Microsoft Point and Print feature and how does it work?**

Printer Driver

Power Outages

Answers

Configuration

1. **Can I use Web Jetadmin to manage my appliance?**

   No. However, Web Jetadmin will be able to discover a configured appliance and allow the embedded web server to be launched from the Web Jetadmin interface.

2. **Does the appliance support bootp or rarp?**

   No. But the appliance does support DHCP.

3. **What features on the Properties Page in Network Neighborhood are supported by the appliance?**

   The appliance uses the printer configuration page on the Printer Properties window (which is displayed after right-clicking on a printer and then selecting Properties) for driver configuration changes and recognizes some other settings, such as security settings. However, the appliance does not recognize many of the settings if they are changed using these driver management tools.

   - ❍ **General tab**
     - ■ Comments text field - supported
     - ■ Location text field - supported
     - ■ Driver dropdown - the driver can be changed if and only if the driver is an initialized driver; otherwise, the administrator will be prompted to change the driver through the appliance's web interface so that the driver can be initialized.
     - ■ New Driver button - the driver can be uploaded to the appliance, but will not be associated with this printer until the administrator uses the appliance's web interface to change the driver so that it can be initialized.
     - ■ Separator Page button - not supported
     - ■ Print Processor button - not supported
     - ■ Print Test Page button - supported
   - ❍ **Ports tab** (all buttons are disabled for remote printers)
     - ■ Enable bi-directional support checkbox - not supported
     - ■ Enable printer pooling checkbox - not supported
   - ❍ **Scheduling tab**
     - ■ Availability - should be left on "Always"; print jobs submitted during unavailable time will be deleted and not spooled.
     - ■ Priority scale - not supported
     - ■ Spool print document so program finishes printing faster toggle - supported
     - ■ Print directly to the printer toggle - supported
     - ■ Hold mismatched documents check box - not supported
     - ■ Print spooled documents first check box - not supported (the appliance always uses this behavior)
     - ■ Keep documents after they have printed check box - not supported
   - ❍ **Sharing tab**

- Not Shared toggle - not supported (may be selected but will be ignored)
- Shared toggle - supported
- Share Name text field - not supported
- Alternate Drivers - not supported
- ❍ **Security tab**
  - Permissions button - supported
  - Auditing button - not supported
  - Ownership button - not supported

4. **Why do I get prompted for a password when I use a web browser to access the appliance even though the appliance is a member of a domain?**

   Whether you get prompted for a password and what the password prompt looks like are a function of your web browser and its configuration. If the appliance is a member of a domain, it will always ask your browser to use your existing Windows Domain authentication. Microsoft's Internet Explorer uses a concept of security zones to determine whether the web server (in this case, the appliance) is within the "Intranet Zone". There are a number of ways to include the appliance in the "Intranet Zone", but the easiest is to open:

   Tools--> Internet Options-->Connections-->Lan Settings-->Advanced

   and enter the full name, the IP address, and the short name in the "Exceptions" box. This will cause Microsoft's Internet Explorer to connect directly with the appliance and avoid your proxy server. By default, Internet Explorer considers direct connections in the "Intranet Zone". Consult your Microsoft Internet Explorer documentation to determine other ways to include the appliance in the "Intranet Zone".

   If you are using proxy servers in your environment and you want to use the single sign-on functionality, your web browser will need to be set up to bypass the proxy server for the appliance's host name (if it includes periods) and IP address. An administrator can view or change their local intranet settings in the Internet Options page under the Security tab by selecting Local Intranet and clicking on the Sites button.

   Note: The single sign-on feature of the appliance only works with Microsoft's Internet Explorer.

5. **Can I use a hyphen in the appliance name?**

   The appliance name (entered on the Microsoft Networking Settings page) can contain up to 220 alphanumeric characters. It may also contain dashes (-) and periods (.). (The hostname cannot begin with a hyphen (-), but it can have a hyphen within the name. The hyphen cannot be the first character because the appliance name is is also used for the DNS name generation, and the hyphen character is not allowed as the first character in a DNS name.)

6. **Can the appliance integrate into a Windows 2000 environment?**

   The appliance can use a Windows 2000 system for authorization and participate in a Windows 2000 domain in much the same manner as an NT 4.0 server can. The Windows 2000 system must be configured to support NTLM V1, which is a version of the authorization protocol used by Windows system.

7. **Can the appliance be configured via TELNET?**

No. You can assign IP addresses via DHCP, the front panel, and a web browser. After an IP address is assigned, you must use a web browser to finish configuring the appliance.

8. **Is the appliance compatible with non-HP print servers?**

   Yes. Any print server that supports LPD should work with the appliance. You may have to know the proper LPD remote queue name for the print server. Many print servers will work without specifying a remote queue name (use the default HP PRINT SERVER setting); however, some require a special string in order to work. The LPD remote queue name can be obtained from the print server vendor.

Printing

1. **Is there a maximum size print job I can send to the appliance?**

   The appliance can process print jobs up to a maximum size of 2GB.

2. **How does the appliance work with my existing print spooling strategy?**

   It can offload printing tasks from servers and localize print traffic at remote sites. For details, see the product overview.

3. **What is the Microsoft Point and Print feature and how does it work?**

   Point and Print is a Microsoft term to describe the automatic installation of drivers on the printer client. It involves two steps. The first step is installing a shared driver on a network print server or print server appliance. The second step is "pointing" to the print server or appliance from a network client for driver installation on the client. This process is also sometimes described as a network installation of a printer driver.

4. **Can the appliance accept print jobs from UNIX clients?**

   Print jobs are accepted from HP-UX, Solaris, and any other RFC 1179-compliant LPD clients. To set up LPD printing, go to the LPD page in the appliance's web interface (under Network Settings).

5. **Can I print in a Novell environment?**

   Yes. If the Microsoft networking client is loaded and the IP address is properly configured on the client and printer, then the appliance can be used. However, the appliance will not appear as a Bindery object or as an NDS object on the Novell server.

6. **What is the limit on the number of jobs that can be spooled?**

   Up to 10,000 jobs can be spooled at a time, which might be further restricted by the disk space available on the appliance.

7. **How are print jobs sent to the appliance?**

   Clients send print jobs via SMB or LPD to the appliance. SMB (Server Message Block) is the normal Microsoft networking protocol. LPD (Line Printer Daemon) is an Internet standard (RFC 1179) supported by many operating systems.

8. **How are print jobs sent from the appliance to the printer?**

   The appliance uses LPD to send the print job to the printer.

9. **I am trying to print in Landscape mode, but the margins are offset.**

   If you have not done so, upgrade your firmware to version 2.3.xx and initialize the driver for that printer.

10. **Why is the performance so slow when connecting to the appliance via Network Neighborhood or when opening a printer's Property Page in Network Neighborhood?**

    Delays connecting to a printer via Network Neighborhood or displaying the Property page in Network Neighborhood are often caused by an incorrectly configured DNS entry for the appliance. If DNS is misconfigured, it can take 1-2 minutes for the appliance to respond to a request.

    The appliance requires entries in both the DNS server's forward and reverse lookup tables. You can verify the appliance's DNS configuration from a Windows NT or Windows 2K system command prompt by running the following commands:

    ❍ nslookup <applianceName.appliance-DNSdomain>
    ❍ nslookup <appliance-IP-Address>

    The first command verifies there is a DNS entry for the appliance's name and the second verifies that there is a DNS entry for the appliance's IP address. If you get a negative response from either of these commands, you need to correct your DNS configuration. If you do not receive a negative response, please contact HP support.

11. **Jobs are getting stuck on the appliance for one of my printers.**

    The appliance uses LPD to send print jobs to its printers. If the print server connecting a printer to the network does not support LPD, jobs for that printer will get stuck on the appliance. You may need to upgrade the firmware of the offending print server or it may need to be replaced with a print server that supports LPD.

Printer Drivers

1. **I can't install the Windows 9x driver for a printer for which I already have a Windows NT, 2K, or XP driver installed.**

   Your Windows 9x driver may not have the same name in its .inf file as the Windows NT, 2K, or XP drivers. Please contact HP support.

2. **I am using Internet Explorer 6 and am trying to install and initialize a driver. I keep getting a message about Java having to be turned on. How do I do this?**

   Before drivers can be installed, Java must be installed and JavaScript enabled in your web browser. JavaScript can be enabled in Internet Explorer, under:

   Internet Options-->Security (tab)-->Custom Level (button)-->Scripting-->Scripting of Java Applets

(subheading)

Since you are an Internet Explorer 6 user, you will need to go to the Microsoft website to download and install the Microsoft virtual machine (go to the Microsoft website and search on "virtual machine"). Then make sure the virtual machine is turned on. In Internet Explorer, go to:

Internet Options-->Security (tab)-->Custom Level (button)-->Microsoft VM

Select any option other than "disable".

3. **I am going to upgrade to firmware version 2.3.xx. Will my printer drivers have to be initialized again?**

   If migrating to firmware version 2.3.xx, printers that had been added to earlier firmware versions (2.2.x or before) need to be associated with their driver again. To do this easily, go to the Printers page and then click for that printer. Select Drivers. In the drop-down list, select any other driver and click . Then, select the original driver and click again.

4. **I am trying to add a printer driver to the appliance, but I keep getting an "unauthorized to perform this action" error message.**

   In order to install drivers onto the appliance, a user must be logged onto their PC with a user account that has permission to install software on that PC, and have a corresponding administrator account on the appliance. If NT domain authentication is enabled (on the Microsoft Networking Settings page), administrator accounts on the appliance can be set up on the Domain Account page (in the appliance's web interface under Admin Accounts). If NT domain authentication is not enabled, the user must set up a local administrator account on the appliance, with a name and password that matches their NT user account.

5. **I added a Windows 2000 driver to the appliance, but it did not show up in the driver list.**

   Drivers for Microsoft Windows NT 4.0 usually work with both Windows 2000 and Windows XP. Consequently, many vendors will label a driver as Windows 2000 or XP when the driver conforms to the NT 4.0 driver specification. As a result, Windows 2000 drivers can show up as Windows NT drivers.

6. **I added a Windows XP driver to the appliance, but it did not show up in the driver list.**

   Drivers for Microsoft Windows NT 4.0 usually work with both Windows 2000 and Windows XP. Consequently, many vendors will label a driver as Windows 2000 or XP when the driver conforms to the NT 4.0 driver specification. Since there is no unique XP driver specification, drivers labeled by a printer vendor for XP will always appear as either NT 4.0 or Windows 2000 drivers.

7. **Why am I getting the "Driver information not found" error when I try and add two drivers to the appliance at the same time?**

   When you add multiple drivers to the appliance at the same time, the names for those drivers (as recorded in their .inf files) must match. If the driver names in the .inf files do not match, you will receive a driver installation error indicating the discrepancy. These drivers will need to be installed separately.

   If you are trying to install both an NT and a 2K driver for the same printer, consider adding the same

printer to the appliance twice: once with the NT driver and the second time (same printer with a different name) with a 2K driver.

If you are trying to install a 9x driver and the name does not match, it is possible that the driver names provided for different operating systems are not the same. If this is the case, please contact HP support.

Power Outages

1. **How do I connect an uninterruptible power supply (UPS)?**

   The appliance supports APC UPSs only in the Simple Signaling mode with a Simple Signaling cable (APC part # 940-0020B). Connect the UPS cable to the connector labeled UPS on the back of the appliance.

   Note: The Simple Signaling cable is not included with the appliance or with the APC UPS. This cable can be ordered from APC (APC part # 940-0020B).

2. **How does an uninterruptible power supply (UPS) work with the appliance when the power fails?**

   The UPS communication cable enables the UPS to signal the appliance to perform an orderly shutdown after a delay of about 60 seconds in the event of a power failure. During an orderly shutdown, processes are closed and data is saved. No configuration is necessary to enable UPS support, other than simply connecting the DB-9 cable.

3. **What happens if the appliance experiences an unplanned power interruption?**

   After a power outage the appliance will automatically recover and rebuild its settings as necessary. To reduce the chance of data loss, the appliance can be connected to a UPS. (See the questions regarding UPS below.)

   Print jobs that were printing and print jobs that were spooled but not printing will automatically resume when the appliance is powered up again. Print jobs that had not been spooled yet need to be resent.

   Loss of power could initially cause corruption of the data on the appliance hard disk. However, the appliance is designed to make internal data loss unlikely, since the corrupted data will be automatically corrected during its next uninterrupted bootup.

   It is always a good idea to have a backup of the settings and files in case they need to be restored.

   After a power outage or any other improper shutdown, the appliance may experience so many errors in its file system that it rebuilds the disk from the default image. The printers, network configuration, and drivers will be not be automatically restored. The configuration must be restored manually using the Restore functionality with the last configuration manually backed up.

Warranty, Regulatory, and Licensing Information

Links within this document:

➜ [Hewlett-Packard Limited Warranty Statement](#)
➜ [Regulatory Compliance](#)
➜ [Declaration of Conformity](#)
➜ [Trademarks and Copyrights](#)
➜ [Software Licenses](#)

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HP Product	Duration of Limited Warranty
HP Print Server Appliance 4200 (J4117A), and HP JetDirect 4000 Print Appliance (J4107A)	1 year

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Regulatory Statements

FCC Statement (USA)

General Information. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Pursuant to Part 15.21 of the FCC Rules, any changes or modifications to this equipment not expressly approved by the Hewlett-Packard Company may cause interference and void the FCC authorization to operate this equipment.

The Federal Communications Commission has prepared a booklet titled Interference Handbook (1986), which may be helpful to you. This booklet (stock number 004-000-004505-7) may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against interference in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause interference to radio communications.

Installing this equipment in an FCC Level B product results in an FCC Level A Composite System (as defined in the FCC Rules and Regulations) when attached to an Ethernet (IEEE 802.3/802.3u) or Token Ring (IEEE 802.5) network.

European Community

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

Electromagnetic Emissions

FCC part 15 Class A (U.S.A.), ICES-003 (Canada), CISPR-22/EN55022 Class A, AS/NZS 3548 (Australia/New Zealand).

Note: For EU compliance, see the Declaration of Conformity.

Safety

Products comply with:

- IEC 950: (1991)+A1,A2,A3,A4/EN60950 (1992)+A1,A2,A3,A4
- UL 1950
- CSA 950

Australia

This equipment complies with Australian EMC requirements.

Canada

This equipment complies with Canadian EMC Class-A requirements.

Declaration of Conformity

DECLARATION OF CONFORMITY
according to ISO/IEC Guide 22 and EN45014

Manufacturer's Name: Hewlett-Packard Company

Manufacturer's Address: 8000 Foothills Blvd.
Roseville, CA 95747-5677
U.S.A.

declares that the product:

Product Name:
HP Print Server Appliance 4200 (Model Number J4117A)
HP JetDirect 4000 Network Print Appliance (Model Number: J4107A)

conforms to the following Product Specifications:

Safety: EN60950 (1992) +A1,A2,A3,A4,AII / IEC 950 (1991) +A1, A2, A3, A4

EN60825-1 (1994) / IEC 825-1 (1993), Class 1
GB 4943 (1995)

EMC: EN 55022 (1998) / CISPR-22 (1997) Class A
GB 9254 (1988)
EN 55024 (1998)
IEC 61000-4-2 (1995); EN 61000-4-2 (1995)
IEC 61000-4-3 (1995); EN 61000-4-3 (1996)
IEC 61000-4-4 (1995); EN 61000-4-4 (1995)
IEC 61000-4-5 (1995); EN 61000-4-5 (1995)
IEC 61000-4-6 (1996); EN 61000-4-6 (1996)
IEC 61000-4-8 (1993); EN 61000-4-8 (1993)
IEC 61000-4-11 (1994); EN 61000-4-11 (1994)
EN61000-3-2 (1995)
EN61000-3-3 (1995)
FCC Title 47 CFR, Part 15 Class A

Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC and the
EMC Directive 89/336/EEC and carries the CE marking accordingly. Shielded cables are recommended to
meet the above specifications.

Tested with Hewlett-Packard Co. products only.

Roseville, February, 10, 2001

Mark Vigeant

Mark Vigeant, Product Regulations Manager

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH,

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library 'Frob' (a library for tweaking knobs) written by James Random Hacker.

signature of Ty Coon, 1 April 1990
Ty Coon, President of Vice

That's all there is to it!

Initiated standard shutdown (102)

Level: Informational

Category: Administrative

Description: The appliance was shutdown safely. This is generally done by using the power button on the front panel or through the web interface (Restart).

Completed standard startup (103)

Level: Informational

Category: Administrative

Description: The appliance completed startup. The preceding shutdown was a safe shutdown (typically through the power button on the front panel or through the web interface).

Completed non-standard startup -- followed abrupt shutdown (104)

Level: Informational

Category: Administrative

Description: The appliance completed startup after an abrupt shutdown, perhaps from a power disruption.

Action: Non-standard startups may require the appliance to restore the operating system from a safe copy. If configuration data (e.g. networking, printer, and driver settings) is no longer resident on the appliance, use a backup to restore the settings.

Running on UPS battery due to power failure (105)

Level: Informational

Category: Administrative

Description:A power failure occured and the appliance began relying on the Uninterruptable Power Supply (UPS) battery for its power.

Shutdown initiated due to low UPS battery (106)

Level: Informational

Category: Administrative

Description: After a power disruption, the appliance is schedule to run for one minute on the Uninterruptable Power Supply (UPS) battery. This permits a safe shutdown of the appliance. However, during this period, the UPS reached a power level that was too low and, in response to this, the appliance shut itself down. The battery might be weak or old. Or the power might have cycled multiple times but the battery did not have a chance to recharge.

Action: Try recharging the UPS battery or replacing the battery with a new one.

Shutdown initiated. UPS battery run time expired (107)

Level: Informational

Category: Administrative

Description: After a power disruption, the appliance is scheduled to run for one minute on the UPS (Uninterruptable Power Supply) battery. This permits a safe shutdown of the appliance. That one minute period has expired, so the appliance shut itself down.

Shutdown cancelled. Normal power restored (108)

Level: Informational

Category: Administrative

Description: Normal power has been restored to the appliance, so the appliance is no longer reliant on the UPS (Uninterruptable Power Supply) battery backup. Additionally, the shutdown that was planned for the appliance due to the power disruption has been cancelled.

Cannot communicate with domain controller (200)

Level: Security

Category: Administrative

Description: The domain controller experienced one of the following conditions:
- network problems (cable malfunction, hub, or router problems)
- not on the network
- the IP address or hostname specified is not a domain controller
- power is disconnected or interrupted

Action: Check the Domain Membership Status field on the Microsoft Networking Settings page to verify that the appliance can communicate with the domain controller. If the domain controller the appliance was communicating with is no longer available, the appliance will attempt to find another domain controller from the following:
- the WINS server
- broadcasting on the local subnet
- the DNS server

If the DNS server, WINS server, or Domain Controller is not on the same subnet as the appliance, ensure that the TCP/IP configurations, as entered on the TCP/IP Network Settings page in the web interface, are configured correctly and that the network infrastructure, such as the default gateway, is configured and is operational.

Cannot communicate with any domain controllers (201)

Level: Critical Error

Category: Security

Description: The appliance was unable to communicate with a Primary Domain Controller (PDC) or a Backup Domain Controller (BDC) (if one is set up) to verify the user's name and password. This means that clients will not be allowed to print because a Domain Controller was not available to verify the user's name and password.

Action:
- Check your WINS server, domain controllers, routers, and other network infrastructure to verify proper set up and operation (are they plugged in and turned on?).
- If you specified automatic discovery of the domain controllers on the [Microsoft Networking Settings page](), try changing to a list of specific domain controllers on that same page.
- If the DNS server, WINS server, or Domain Controller is not on the same subnet as the appliance, ensure that the TCP/IP configurations, as entered on the [TCP/IP Network Settings page]() in the web interface, are configured correctly and that the network infrastructure, such as the default gateway, is configured and is operational.
- If the problem persists, try specifying the list of Domain Controllers using IP addresses instead of NetBIOS or DNS names.

Authentication failed -- user authentication via Microsoft networking was unsuccessful (203)

Level: Error

Category: Security

Description: The user attempted to access the appliance via NT native tools, but the request was denied because either the user identity was not confirmed or the user was not authorized to use the appliance. One or more of the following errors may have occurred:
- The user name and password combination was not valid.
- The user logged into a machine that was not joined to the NT domain.

Action:
- Retype the user name and password combination.
- If the user machine was not in the same domain as the appliance or was not in a trusted domain, the user should type domain\user name and password for correct authentication.
- Verify that the user account exists.
- Monitor the log file for additional unauthorized access attempts.

Permission denied - user not allowed to connect to printer (205)

Level: Error

Category: Security

Description: The user tried to perform an action without the proper access level.

Action:
- If NT Domain authentication has been enabled on the [Microsoft Networking Settings]()

page, the security settings may have changed. Verify that the user has authority to print. This can be done from the web interface by selecting Printers --> Printer Property Page --> [Security](#).

By default, the group "Everyone" has permission to print. If "Everyone" does not have permission to print, add either the specific user, or a group to which the user belongs. The group "Everyone" normally contains all the users.

- Monitor the log file for additional unauthorized access attempts.

Cannot communicate with WINS server (209)

Level: Critical Error

Category: Networking

Description: The WINS server specified on the [Microsoft Networking Settings page](#) experienced one of the following conditions:
- network problems (cable malfunction, hub, or router problems)
- not on the network
- the IP address or hostname specified is not a domain controller
- power is disconnected or interrupted

Action:
- Retype the WINS server address in the xxx.xxx.xxx.xxx format on Microsoft Networking Settings page and try again.

  A properly configured WINS server is essential for the proper operation of the appliance. If the appliance cannot reach the WINS server, users on other subnets (on the other side of a router) will not be able to see the appliance in Network Neighborhood.

- If the DNS server, WINS server, or Domain Controller is not on the same subnet as the appliance, ensure that the TCP/IP configurations, as entered on the [TCP/IP Network Settings page](#) in the web interface, are configured correctly and that the network infrastructure, such as the default gateway, is configured and is operational.

Failed WINS name resolution (210)

Level: Critical Error

Category: Networking

Description: The appliance could communicate with the WINS server but could not resolve the name. A properly configured WINS server is essential for the proper operation of the appliance. If the appliance cannot use the WINS server to resolve IP addresses, it will not be able to communicate with the device.

Action: The NT Domain Name might have been misspelled on the [Microsoft Network Settings page](#).

Make sure the network has a WINS server configured and the WINS server address on the

Microsoft Network Settings page is correct. Make sure the WINS server has an entry for the device being looked up.

For example, if the WINS server does not reply with the IP address of a Domain Controller, the appliance will not be able to authenticate users.

Added printer driver (211)

Level: Informational

Category: Administrative

Description: The printer driver was added to the appliance successfully.

Action: The print driver is available to be associated with a printer.

Permission denied- user not allowed to delete, pause, or resume print job (213)

Level: Error

Category: Security

Description: The user did not have proper access rights to delete, pause, or resume print jobs.

Access rights include:
- Print (print, pause, and delete your own print jobs)
- Manage Documents (pause and delete other user's print jobs)
- Full Control (print, pause, and delete other user's print jobs, delete printers, and change security settings)
- No Access
- Special Access (for some Windows 2000 permissions that do not map directly to the above four permission levels)

Action: One or more of the following actions may apply.
- Grant the user "Manage Documents" or "Full control" through the Printers page in the web interface.
- Monitor the log file for additional unauthorized access attempts.

For more information, see NT Domain Security.

Cannot communicate with the printer (300)

Level: Critical Error

Category: Networking

Description: Communications between the appliance and the printer were interrupted while the appliance was sending a print job to the printer. This could be due to a potential printer problem.

Action:
- Make sure the printer is plugged in and turned on.

- Make sure the IP address entered is the correct IP address for the printer.
- Check the cables for the appliance and the printer to make sure they are connected and secure.

Failed DNS name resolution (301)

Level: Critical Error

Category: Networking

Description:
- The IP address and hostname of the printer were incorrect (see the <u>TCP/IP Network Settings page</u>.
- The DNS server configuration was incorrect.

Action: One or more of the following may apply:
- Use the IP address rather than the hostname.
- Check the IP address and hostname of the printer on the <u>Printer Properties page</u> in the web interface.
- Check the DNS Address and DNS Domain Name on the <u>TCP/IP Network Settings page</u>. Note that only alphanumeric characters with no spaces are allowed. Dashes (-) and periods (.) are also accepted.
- Verify that the domain controllers, WINS servers, and printers have valid DNS entries.

  Failure to resolve DNS names can cause the appliance to not function properly. For example, if the appliance cannot resolve the Domain Controller's name to an IP address, it cannot authenticate users.

  You should verify that the domain controllers, WINS servers, and printers all have valid DNS entries. A valid DNS entry requires an entry in both the forward and reverse lookup tables on the DNS server to enable the resolution from the DNS Domain Name (printers.my.com) or from the IP address.

Permission denied- host not allowed print access to printer (302)

Level: Error

Category: Security

Description: The client computer sending the print job was not allowed to make LPD connections to the printer.

Action: One or more of the following actions may apply:
- On the <u>LPD Settings page</u>, add that host's IP address or DNS Domain Name to the list of allowed hosts.
- Monitor the log file for additional unauthorized access attempts.

Cannot route print job to printer- network path not found (303)

Level: Critical Error

Category: Networking

Description: There is a problem with the network between the appliance and the printer.

Action: One or more of the following actions may apply:
- Check to make sure the printer is plugged in, is turned on, and is online.
- Check the status of network components in the print path. This includes whether components are in-service and powered up.
- Check the configuration of network components in the print path. This includes IP addresses and other settings. components include the appliance, the default gateway of the appliance, the printer, and network infrastructure (routers, switches, cables, etc.).

Cannot connect to printer-- connection refused by the printer (304)

Level: Critical Error

Category: Networking

Description: The printer was able to communicate with the appliance, but the printer refused to allow the appliance to connect to the LPD port (port 515). HP networked printers only allow 8 simultaneous LPD connections and refuse connection number 9. HP printers with many separate sources for LPD print jobs, may generate this error.

Action: Verify that the IP address for the printer (on the Printer Properties page) is for a printer (not some other device). Some older HP Jetdirect print server firmware (the network interface card for HP Printers) only allows one connection; you should upgrade the Jetdirect firmware card to the latest available version of firmware for the card. (Access the latest firmware at http://www.hp.com.)

Changed IP address (400)

Level: Informational

Category: Administrative

Description: The IP address for the appliance has been changed successfully on the TCP/IP Network Settings page in the web interface.

Added printer (401)

Level: Informational

Category: Administrative

Description: The printer has been added to the appliance successfully using the Add Printer feature in the web interface.

Deleted printer (402)

Level: Informational

Category: Administrative

Description: The printer was deleted successfully on the Printers page in the web interface.

Changed printer IP address (403)

Level: Informational

Category: Administrative

Description: The IP address for the printer has been changed successfully on the Printer Properties page in the web interface.

Upgraded firmware (404)

Level: Informational

Category: Administrative

Description: The firmware for the appliance has been upgraded successfully using the Upgrade Firmware feature in the web interface (under General).

Deleted printer driver (405)

Level: Informational

Category: Administrative

Description: The printer driver was deleted successfully on the Driver Management page in the web interface.

Cleared log file (406)

Level: Informational

Category: Administrative

Description: The event log file has been cleared successfully on the Event Log page in the web interface (under General).

Backed up settings to configuration file (407)

Level: Informational

Category: Administrative

Description: The configuration settings for the appliance have been backed up successfully using the Backup feature in the web interface (under General).

Restored settings from configuration file (408)

Level: Informational

Category: Administrative

Description: The configuration settings for the appliance have been restored successfully from the backup using the [Restore feature](#) in the web interface (under General).

Added administrator account (409)

Level: Informational

Category: Administrative

Description: The administrator account has been added to the appliance successfully using the [Add Administrator feature](#) in the web interface.

Deleted administrator account (410)

Level: Informational

Category: Administrative

Description: The administrator account was deleted from the appliance successfully using the [Delete Administrator feature](#) in the web interface.

Changed WINS server address (411)

Level: Informational

Category: Administrative

Description: The WINS server address has been successfully changed on the [Microsoft Networking Settings page](#) in the web interface.

Changed Windows domain or workgroup name (412)

Level: Informational

Category: Administrative

Description: The Windows NT domain or workgroup name has been changed successfully on the [Microsoft Network Settings page](#).

Enabled NT domain authentication (413)

Level: Informational

Category: Administrative

Description: NT domain authentication has been enabled on the [Microsoft Network Settings](#)

page.

Disabled NT domain authentication (414)

    Level: Informational

    Category: Administrative

    Description: NT domain authentication has been disabled on the [Microsoft Network Settings page](#).

Added account in NT domain (415)

    Level: Informational

    Category: Administrative

    Description: A new computer account for the appliance was created on the NT domain via the [Microsoft Network Settings page](#).

Enabled LPD printing for all hosts (416)

    Level: Informational

    Category: Administrative

    Description: LPD printing has been enabled for all hosts on the [LPD Settings page](#).

Enabled LPD printing for specified hosts (417)

    Level: Informational

    Category: Administrative

    Description: LPD printing has been enabled for selected hosts on the [LPD Settings page](#).

Disabled LPD printing for all hosts (418)

    Level: Informational

    Category: Administrative

    Description: LPD printing has been disabled on the [LPD Settings page](#).

Set NT user capabilities (419)

    Level: Informational

    Category: Administrative

    Description: A user's access level for a particular printer has been changed through [Security](#)

page in the web interface.

Failed to create NT domain machine account (420)

Level: Informational

Category: Administrative

Description: Using the Microsoft Networking page, creation of a machine account failed. This means that Microsoft networking will not work until a machine account has been created. This could be due to:
- The user name and password combination was not valid.
- The user specified does not have authority to create a machine account
- The WINS server was not properly configured.

Action: One or more of the following actions may apply:
- Retype the username and password and try again.
- Check the security levels for that user on the Primary Domain Controller (PDC).
- Verify that you have a WINS server configured and that the WINS server has an entry for the Primary Domain Controller.
- Use the MS Server Manager to create the account (and avoid using the Microsoft Networking page).

Failed to join NT domain (421)

Level: Informational

Category: Administrative

Description: NT Domain Authentication will not work.

Action: Verify that the WINS server configuration on the appliance is correct (as entered on the Microsoft Networking Settings page). Attempt to recreate the machine account on the NT Domain. Instead of specifying automatic discovery of the domain controller, enter the IP address of the domain controller.

Changed PSA name (422)

Level: Informational

Category: Administrative

Description: The name of the print server appliance was changed successfully on the Microsoft Networking Settings page in the Web interface.

Changed time (423)

Level: Informational

Category: Administrative

Description: The time was changed successfully on the [Date/Time page](#) in the Web interface.

Installing Printers on Clients

Links within this document:

➜   [Installing Printers on Microsoft Clients (the Microsoft Point and Print feature)](#)
➜   [Bypassing Point and Print](#)
➜   [Configuring Printing for UNIX Clients](#)

Links to related documents:

➜ [Troubleshooting the Appliance](#)

Installing printers on each client computer is required in order for clients to be able to print using the appliance.

Note: Hewlett-Packard recommends verifying installation with one client computer before configuring more clients. This will confirm operation. It is easier to troubleshoot settings on one client computer than on many.

Installing Printers on Microsoft Clients (the Microsoft Point and Print feature)

Use one of the following procedures to install printers on each client computer (this feature is only supported on an x86 PC running Microsoft Windows 9x, ME, NT, 2K, or XP):

1. Check the following:

   ❍ The appliance is installed on the network and properly configured.

   ❍ Each client workstation is connected to the network.

   ❍ The printers are set up and turned on.

2. On the client workstation, click Tools in Microsoft's Explorer and select "Find… Computer". Enter the name or IP address of the appliance. Or, find the appliance in the Network Neighborhood.

3. Open the Printers folder.

4. Right-click on the printer to install.

5. Select Install from the drop-down menu.

6. For Windows NT, 2000, and XP clients, driver installation is complete. For Windows 95, 98, and ME clients, a wizard will ask several things (for example, "Do you want to print from DOS", etc.).

Or, add the printer using the following steps:

1. Make sure that the appliance is installed and that the printers are set up and turned on. Be sure the client workstation is connected to the network.

2. On the client workstation, click Start-->Settings-->Printers.

3. Double-click the Add Printer icon.

4. Select the Network printer server radio button

5. Select the appliance and printer from the list box. Or, enter the Universal Naming Convention (UNC) path (for example: "\\spooler1\printer1"). See Microsoft documentation for more information about UNC. Click OK.

6. Answer subsequent questions to complete the driver installation.

Bypassing Point and Print

Installing printers on each client computer is required in order for clients to be able to print using the appliance. With the Microsoft Point and Print technology, when a printer is added to a client an associated driver is automatically installed on the client also, which helps make printer installation easy. However, the driver associated with a given printer can only be managed at an administrator level, so changes to that driver such as enabling duplex or changing the driver itself will be reflected on all Windows NT, 2K, and XP clients using that printer; only one driver can be associated with a given printer.

In order to bypass this functionality, clients can install a local printer that uses a local port to print through the appliance.

Note: This requires the client to install a driver locally. Because the installed printer is viewed by the computer as a local printer, it will not receive job status feedback from the appliance. For example, if the printer on the appliance has been paused, the client printer will not reflect this and it may look like a job was printed when it was not.

To install a local printer with local driver that prints through the PSA follow the following steps.

For Windows 2000 and XP Clients:

1. Start the Add Printer wizard (in Windows 2000 or XP).

2. Click Next.

3. On the "Local or Network Printer" screen, select "Local printer" and then click Next.

   Note: On this screen, make sure "Automatically detect and install any Plug and Play printer" is **not** selected.

4. On the "Select the Printer Port" screen, select "Create a new port" and then select "Local Port" as the Type. Click Next.

5. On the "Port Name" screen, enter the UNC name for the printer in the following format and click OK:

   \\<print_appliance_name>\<printer_name> (where "print_appliance_name" is the name of the print appliance and "printer_name" is the name of the printer)

6. On the screen showing printer manufacturers and printers, select a printer driver and then click Next.

7. On the "Name Your Printer" screen, Specify a printer name and then click Next.

8. On the "Printer Sharing" screen, select "Do not share this printer" and then click Next.

9. On the "Print Test Page" screen, click Next.

10. Click Finish.

For Windows NT Clients:

Note: Before you begin, make sure you have Microsoft's Service Pack 6a installed on the client(s).

1. Start the Add Printer Wizard (in Windows NT).

2. Select "My Computer" and click Next.

3. On the screen showing available ports, click on the "Add Port" button.

4. On the "Printer Ports" screen, select "Local Port" and then click New Port.

5. On the "Port Name" screen, enter the UNC name for the printer in the following format and click OK:

   \\<print_appliance_name>\<printer_name> (where "print_appliance_name" is the name of the print appliance and "printer_name" is the name of the printer)

6. Click OK.

7. On the "Printer Ports" screen click Close.

8. On the screen showing available ports, select your newly created port and click Next.

9. On the screen showing printer manufacturers and printers, select a printer driver and then click Next.

10. On the screen asking for a printer name, enter your printer name and click Next.

11. On the screen referring to printer sharing, select Not Shared and click Next.

12. Click Finish.

Configuring Printing for UNIX Clients

The following topics are discussed in the section:

- configuring print queues for BSD-like systems

- configuring print queues using SAM (HP-UX systems)

- printing a test file

A print queue must be set up for each printer or printer personality (text, PCL, or PostScript) used.

If printing text documents from UNIX clients to an HP JetDirect print server, a special queue must be configured on the appliance. First add the printer through the Printers page in the web interface. On the Identify Printer page, for connectivity select Other and then specify the remote queue name. For the remote queue name on the target printer, TEXT must be specified (or TEXT2, TEXT3 for multi-port JetDirect print servers). This must be done even though the target printer is an HP JetDirect device. Use the normal print queue when printing jobs that have been formatted with a printer-specific page description language such as PDL (like PostScript) or PCL.

Configuring Print Queues for BSD-like Systems

If the printer supports automatic language switching, the application may select the printer language via commands embedded in the print data.

Make sure users know the printer names for the printers, since they will have to enter those names on the command line for printing.

Following is an example of configuring print queues for BSD-like systems (for example, Linux):

1. Edit the /etc/printcap file to include the following entries:

```
printer_name:\
:lp=:\
:rm=print_appliance_name:\
:rp=remote_printername_argument:\ (this should be the same as the
printer name on the appliance)
:lf=/var/spool/lpd/error_log_filename:\
:sd=/var/spool/lpd/printername:\
:sh:
```

where `printer_name` is the name of the printer on the local computer. , `print_appliance_name` identifies the printer on the network, and `remote_printername_argument` is the print queue designation on the appliance.

For more information on printcap, see the printcap man page in the UNIX documentation.

2. Create the spooling directory by making the following entries. As the root user, enter:

```
cd /var/spool/lpd
mkdir printername
chown root printername
chgrp lp printername
chmod 755 printername
```

where `printername` is the name of the printer on the local computer.

Configuring Print Queues Using SAM (HP-UX Systems)

On HP-UX systems, the SAM utility can be used to configure remote print queues for printing.

Before the SAM program is executed, select an IP address for the appliance and set up an entry in the /etc/hosts file on the system running HP-UX. (This is not required if DNS is configured.)

1. Start the SAM utility as a super user.
2. Select "Printers/Plotters" from the Peripheral Devices menu.
3. Select "LP Spooler".
4. Select "Printers/Plotters" from the Printers/Plotters menu.
5. Select Action from the top menu and then select "Add Remote Printer or Plotter".
6. Complete the "Add Remote Printer/Plotter" screen.

   ❍ The "Printer Name" field should be the local printer name.
   ❍ Be sure to check the box "Remote Printer is on a BSD System".

7. Click OK.
8. Select Exit from the List menu.
9. Exit SAM.

Printing a Test File

To verify that the printer and appliance connections are correct, print a test file.

1. At the UNIX prompt enter:

   `lp -dprintername file_name`

   or on a BSD-like system:

   `lpr -Pprintername file_name`

   where `printername` is the name of the printer as added to the appliance, and `file_name` is the file to be printed.

2. To get print queue status, type the following at the prompt:

   `lpstat printername`

   or on a BSD-like system:

   `lpq -Pprintername`

   where *printername* is the designated printer.

   Example: `lpq -Pappliance1`