HP Print Server Appliance 4250 User's Guide

Click a title to view a topic.

HP Print Server Appliance Documentation

for Firmware Version 2.5.x

Product Overview

Links within this page:

Links to related pages:

- Technical Specifications

Product Introduction

Figure 1: The HP Print Server PSA 4250

The HP Print Server Appliance 4250 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 user name 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 PSA. With the Microsoft Point and Print technology, printers are added to the PSA and associated with a factory-installed driver or a driver already 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 PSA 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 PSA 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 PSA.

Operation and Management

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

Web Jetadmin plug-ins have been designed to configure and manage multiple PSAs. The Web Jetadmin plug-ins for PSA firmware version 2.4.x. are dependent on Web Jetadmin (version 7.2). The Web Jetadmin plug-ins provide LAN administrators and IT managers a single tool to manage their printing environment. The plug-ins provide the following management capabilities for the PSA:

- Automated migration of printers from Microsoft Windows servers
- Automated migration of existing printer connections on Microsoft Windows clients
- Auto-discovery of PSAs
- Batch configuration of most settings
- Remote print path creation
- Remote management of printer drivers
- Central device status reporting
- Scheduled batch firmware upgrades
- Scheduled backup/restore of configuration settings

Product Description

The PSA 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 PSA.

The PSA 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 PSA:

- Off-loads spooling from a UNIX or Windows NT server
- Easy installation
- Easy management
  - Centralized management using Web Jetadmin
  - 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
- Remote management using Web Jetadmin
- Supports SNMP v1, v2c, and v3
- Provides data privacy, data integrity, and server authentication using Secure Sockets Layer (SSL v2/v3) and Transport Layer Security (TLS v1)
- Easy replication of configuration and printer drivers across PSAs
- Reduces network traffic
- Seamless integration into Microsoft networking environment (security, authentication, authorization, and active directory)
- Transparent to client users
- Easy to pre-configure before shipping to a remote office
- Web configuration interface
- Password security on the front panel and for the web interface
- 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 PSA to clients)
- Windows NT Domain integration
- Line Printer Daemon (LPD) support for UNIX clients

Compatibility with HP Print Servers

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

Compatibility with Other (Non-HP) Print Servers

Any print server that supports LPD should work with the PSA. 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 PSA, the PSA can be notified automatically. On the **TCP/IP and DNS** page, a field **Check for print server PSA 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 PSA 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 page:

Figure 1: The HP Print Server Appliance 4250 (J7941)

Model Number

Product	Model number
HP Print Server PSA 4250	J7941A

System Requirements

The computer printing to the PSA 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/region of use.

Country / Region	Option Code	Power Cord
U.S. Canada (excluding Quebec)	ABA	8120-6805
Argentina	AKY	8121-0766
Brazil	AKY	8121-0670
Chile	AKY	8121-0765
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	8120-0550
South Africa	ACQ	8120-6808

Australia New Zealand	ABG	8120-6810
Hong Kong SAR	AB5	8120-0550

Supported Clients

Clients are networked PCs that submit print jobs to the PSA. The PSA 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

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

The PSA provides easy, consistent PSA management for multiple PSAs simultaneously. An SNMP agent provides network device information to monitor, configure, and control networked systems. It provides SNMP clients a method of communicating with PSAs for administration over a network. Operations in SNMP are limited to retrieving and modifying management information values and reporting events. SNMP v1, v2c, and v3 are supported for the 2.4.x firmware. An SNMP MIB defining the PSA's SNMP interface is available from www.hp.com or by contacting HP's support center.

Supported Printers

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

Supported Web Browsers

The following web browsers are supported:

- Netscape Navigator 6.0 or greater
- Microsoft (R) Internet Explorer 5.5 or greater

What Ships in the Box

The following are included in the box:

1. HP Print Server Appliance 4250 (J7941)
2. 3 Quick Start Posters (English/Spanish (5990-4778), French/German (5990-4779), and Italian/Portuguese (5990-4780))
3. Documentation CD-ROM (5069-4434 for the CD and sleeve, and 5011-4598 for the CD)
4. Rackmount Kit (5069-4433)
5. Power cable

Security Features

The PSA 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 user name 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 PSA without requiring the creation of user accounts and passwords on the PSA.

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 V ~ 1000mA 200-240 V ~ 750mA
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
- NOM-019-SCFI-1994

Web Interface for the PSA

Links within this page:

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

This page explains what can be configured through this interface and how to access the web interface on the PSA.

Supported Web Browsers

The following web browsers are supported:

- Netscape Navigator 6.0 or greater
- Microsoft (R) Internet Explorer 5.5 or greater

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 PSA, as displayed on the front panel liquid-crystal display (LCD) (for example: http://10.1.2.3).
   Or, type the DNS name of the PSA (if the DNS server has been configured with the correct name entry).
3. Type the administrator name and password. (The default is "admin" for the user name and "admin" for the password.) The Overview page is displayed with the menu on the left.

The Overview page displays general information about the PSA.

Menu

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

Print Services

- Overview
- Print Shares
- Driver Management

Networking

- Date and Time
- TCP/IP and DNS
- Microsoft Network
- LPD Settings
- SNMP

Security

- Administrators
- SSL Certificate

Maintenance

- Backup
- Restore
- Upgrade
- Restart

Diagnostics

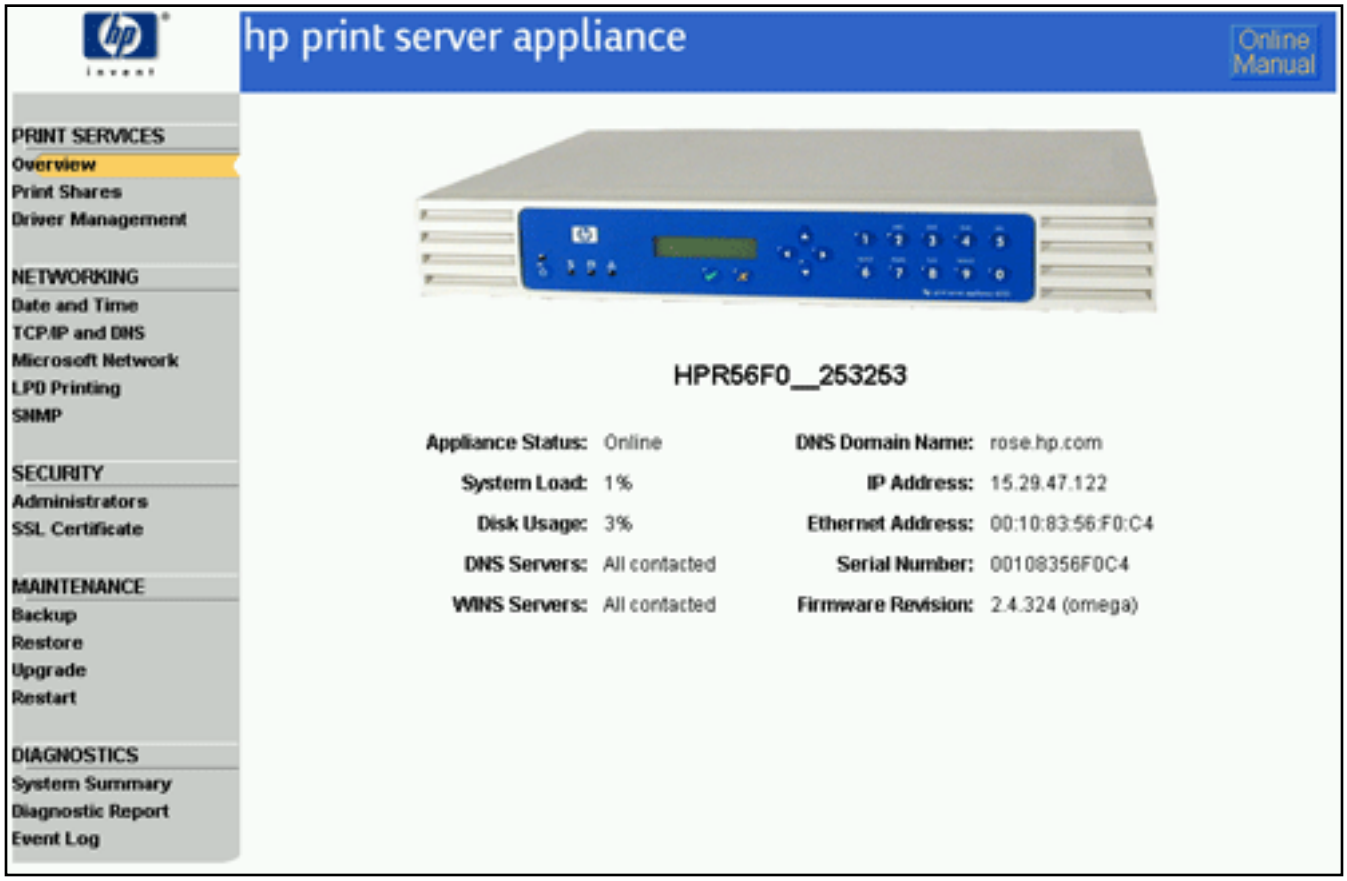
- System Summary
- Diagnostic Report
- Event Log

Overview Page

The following information is displayed on the **Overview** page:

Overview Page	
Field Name	**Description**

Print Server Name	Name as typed in the **Print Server Appliance Name** field on the Microsoft Network Settings page (in the web interface under **Networking**).
Appliance Status	Status of this PSA. If a backup, restore, or upgrade is in process, shows the current state of that operation.
System Load	Shows how heavily the PSA has been used in the past 15 minutes. (See the System Load section on the Diagnostic Report for more information.)
Disk Usage	Percentage of disk space used on the PSA.
DNS Servers	Lists the number of configured DNS servers that are reachable across the network. This value is updated every ten minutes or whenever Diagnostics are run.
WINS Servers	Lists the number of configured WNS servers that are reachable across the network. This value is updated every ten minutes or whenever Diagnostics are run.
Microsoft Domain	If Domain Mode is enabled on the PSA (on the **Microsoft Network Settings** page) , this displays the name of the domain it is a member of and its status.
DNS Domain	The DNS Domain name as typed in the **DNS Domain** field on the TCP/IP and DNS page (in the web interface under **Networking**).
IP Address	The IP address for the PSA as typed on the **IP Address** field on the TCP/IP and DNS page (in the web interface under **Networking**).
Ethernet Address	The PSA's IEEE Ethernet (802.3) Link Level MAC (Media Access Control) address.
Serial Number	Serial number for the PSA.
Firmware revision	Firmware revision number currently on the PSA.



Changing the Date and Time

Use the **Date and Time Settings** page to set the date and time of the PSA.

Field Name	Description
Day	Type the day of the month numerically (for example: "01" or "20").
Month	Type the month (for example: "01", "02", and so on).
Year	Type the four-digit year (for example, "2003").
Time	Type 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 cancel to keep the time and date at their previous values, or click apply to set the date and time.

Links to related pages:

- System Messages for Date and Time

Getting Started

Links within this document:

Links to related documents:

- Troubleshooting the Appliance

What Ships in the Box

The following items ship with PSA. If something is missing from the box, please contact the HP Dealer or Reseller where the PSA was purchased.

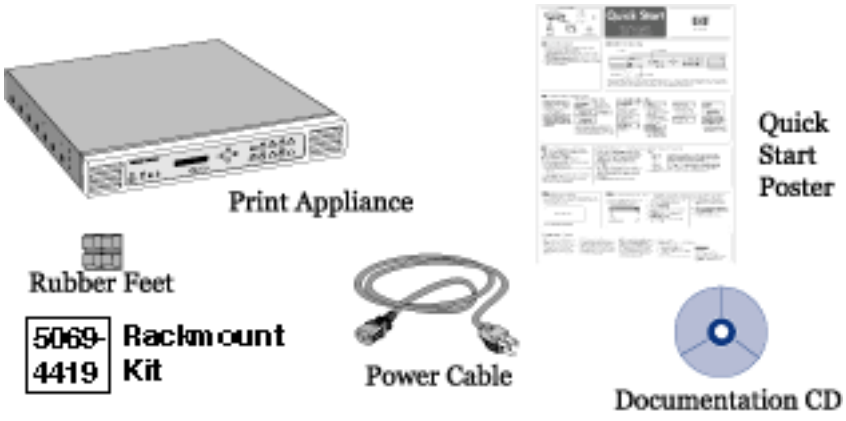


Figure 1: Contents of the box

Steps for Installation and Configuration

To install the PSA, complete these steps:

1. Unpack the PSA, 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. Complete the **TCP/IP and DNS Settings** page (on the menu under **Networking**).
7. Complete the **Microsoft Network Settings** page (on the menu under **Networking**) 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 PSA (http://www.hp.com/go/printappliance_registration).

Installing Printers on Clients

Links within this document:

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 PSA.

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). Before you begin, check the following:

- The PSA is installed on the network and properly configured.
- Each client workstation is connected to the network.
- The printers are set up and turned on.

For Windows 9x, ME, NT, and 2K:

1. On the client workstation, click **Tools** in Microsoft's Explorer and select **Find... Computer**. Type the name or IP address of the PSA. Or, find the PSA in the **Network Neighborhood**.
2. Open the **Printers** folder.
3. Right-click on the printer to install.
4. Select **Install** from the drop-down menu.
5. 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**, and so forth.).

   Or:

1. On the client workstation, click **Start-->Settings-->Printers**.
2. Double-click the **Add Printer** icon.
3. Select the **Network print server** radio button.
4. Select the PSA and printer from the list box. Or, type the Universal Naming Convention (UNC) path (for example: "\\spooler1\printer1"). See Microsoft documentation for more information about UNC. Click **OK**.
5. Answer subsequent questions to complete the driver installation.

For Windows XP:

1. On the client workstation, click **Start** and then choose **My Computer**. Under **Other Places**, click **My Network Places**. Now click **Search** on the toolbar and type the name or IP address of the PSA.
2. Double-click the PSA that was found. This will expand into a list of printers available on the PSA.
3. Right-click on the printer and click **Connect** to install. The printer should now be in the printers and faxes folder.

   Or:

1. On the client workstation, click **Start** and then choose **Printers and Faxes**.
2. Under **Printer Tasks** select **Add a printer**.Double-click the **Add Printer** icon.
3. Select the **Network print server** radio button.
4. Select the **Connect to this printer** radio button and type the Universal Naming Convention (UNC) path (for example: "\\spooler1\printer1"). See Microsoft documentation for more information about UNC. Click **Next**.
5. 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 PSA. 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. This 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 PSA.

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 PSA. For example, if the printer on the PSA 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, type the UNC name for the printer in the following format and click **OK**:

\\<psa_name>\<printer_name> (where "psa_name" is the name of the PSA 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 (or greater) 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, type the UNC name for the printer in the following format and click **OK**:

   \\<psa_name>\<printer_name> (where "psa_name" is the name of the PSA 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 PSA. First add the printer through the Print Share 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 using 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 PSA connections are correct, print a test file.

1. At the UNIX prompt type:

   `lp -d`*`printername file_name`*

   or on a BSD-like system:

   `lpr -P`*`printername 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 -P`*`printername`*

   where *printername* is the designated printer.

   Example: `lpq -Pappliance1`

Front Panel

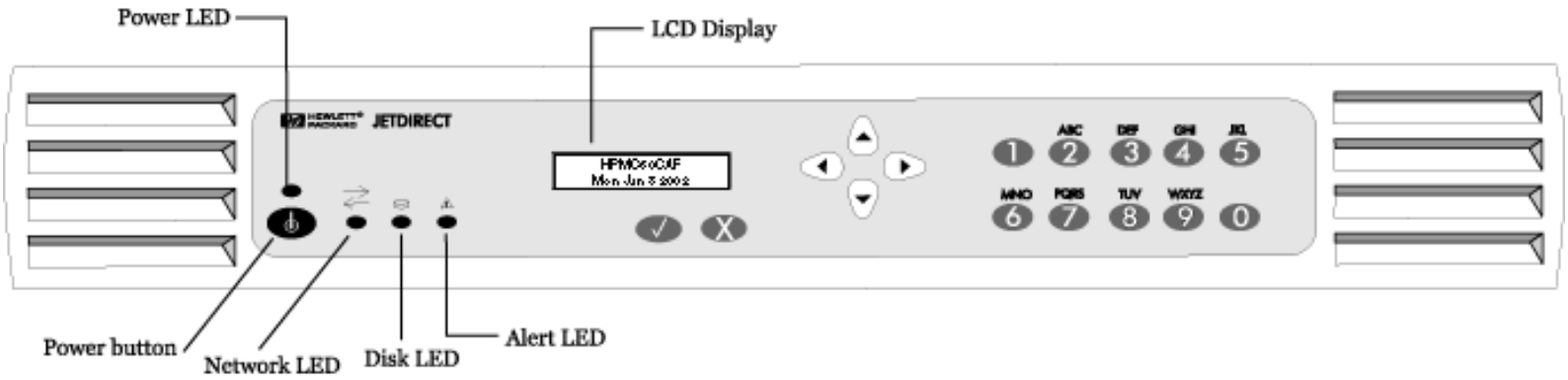
Links to related pages:

- Troubleshooting the PSA

The following activities can be performed from the front panel:

- Start Up or Shut Down the PSA
- Configure the IP Address for the PSA
- Configure the Link Speed and Duplex Mode for the PSA
- Set or Change the Front Panel Password

The front panel on the HP Print Server Appliance 4250 has the following components:



LEDs

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

LED	LED Name	Description

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

Power Button - Starting Up and Shutting Down the PSA

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

If print jobs are printing when the PSA is powered down, the print jobs will not be completed. Jobs waiting to be printed will resume printing when the PSA is fully booted. If the PSA 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 PSA is powered up again. If, however, the integrity of the PSA 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 PSA 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, and so forth, when configuring the PSA. The letters above the keys can be useful as a mnemonic aid when entering the device's password.

Making Entries

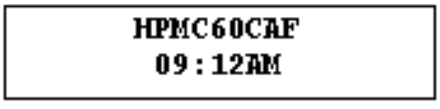
Use  and  on the front panel to move the cursor in the front panel display. Enter only numbers from the keypad.

When the entry is complete, press ✔ .

Messages on the Front Panel

When the PSA 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 PSA displays a repeating series of normal operating messages.



The first line of the display shows the PSA name which can be entered from the web interface during configuration (on the

Microsoft Network Settings page). If the name is not typed 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

- Configure the IP Address for the PSA
- Configure the Link Speed and Duplex Mode for the PSA
- Set or Change the Front Panel Password

There are three front panel operations: IP configuration, link speed and duplex mode configuration, and password configuration

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

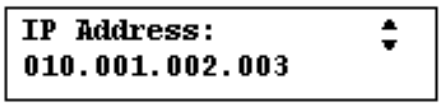
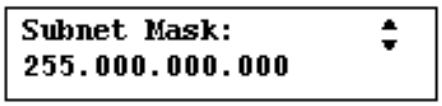
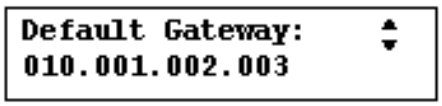
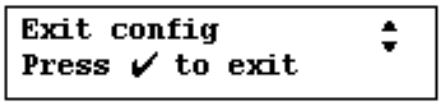
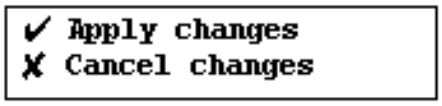
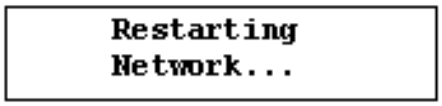
Configuring the IP Address Using the Front Panel

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

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

Configuring the IP Address

Display	Action
HPMC60CAF 09:12AM	To begin configuring the IP address, press ✔ once.
IP Config Press ✔ to begin	Press ✔ again.
IP Config Mode =DHCP	Select the mode by pressing ◀ or ▶ to toggle between **Manual** and **DHCP**. Press ▼ to continue.

	If **Manual**: Use the number buttons on the front panel of the PSA to enter the IP address. Then press ▼. If **DHCP**: Press ▼ to continue.
	If **Manual**: Use the number buttons on the front panel of the PSA to enter the subnet mask. Press ▼. If **DHCP**: Press ▼ to continue.
	If **Manual**: Use the numbers on the front panel of the PSA to enter the default gateway. Press ▼. If **DHCP**: Press ▼ to continue.
	Press ✔.
	Press ✔.
	After a moment, the PSA will resume displaying normal operating messages if the IP address is valid.

Configuring the Link Speed and Duplex Mode Using the Front Panel

These procedures explain how to configure the link speed (100 Mbps or 10 Mbps) and the duplex mode (full or half) for the PSA using the front panel. This can be done manually or the settings can be automatically detected (which is the default). The link speed is the speed at which the PSA communicates over the network. The speed is expressed in megabits per second and is either 10 or 100. The duplex mode defines whether data can be sent at the same time it is received:

- **Full duplex**: data can flow both directions at the same time
- **Half duplex**: data can only flow one way at a time and any attempt to do both at the same time creates a collision.

The current setting is displayed on the **System Summary** page (under **Maintenance** in the web interface).

Display	Action

HPMC60CAF 09:12AM	To begin configuring the link speed and duplex mode for the PSA, press ✔ once.
IP Config ▲▼ Press ✔ to begin	Press ▽ to skip the IP configuration and to go to the Link Speed and Duplex Mode configuration.
Link Config ▲▼ Press ✔ to begin	Press ✔ .
Link Mode ▲▼ =Auto Detect	Select the link mode by pressing ◁ or ▷ to toggle between **Manual** and **Auto Detect**. Press ▽ to being configuring the link speed.
Speed ▲▼ =10 Mbps	If **Manual** mode: Press ◁ or ▷ to select the link speed (10 Mbps or 100 Mbps). If **Auto Detect** mode: The detected setting is displayed (10 Mbps or 100Mbps). Press ▽ to begin configuring the duplex mode.
Duplex ▲▼ =Half	If **Manual** mode: Press ◁ or ▷ to select the duplex mode (**Half** or **Full**). If **Auto Detect** mode: The detected duplex mode is displayed (**Half** or **Full**). Press ▽ to continue.
Exit config ▲▼ Press ✔ to exit	Press ✔ .
✔ Apply changes ✘ Cancel changes	Then press ✔ to apply changes, or press ✘ to cancel the changes.

Setting or Changing the Front Panel Password

There are two types of passwords that can be set for the PSA: a front panel password (one per PSA) 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 PSA. 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 messages are displayed:

IP Config Press ✔ to begin	Press
Change Password Press ✔ to begin	Press ✔.
New Password ▮	Type 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.

Hardware Installation

Links within this document:

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:

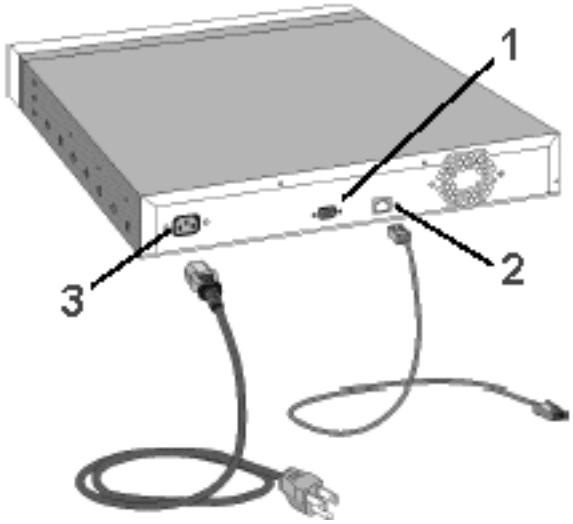
1. Attach the rackmount brackets to the sides of the appliance.
2. Position the appliance in the rack.
3. Install the appliance into the rack. Use all of the provided screws in both vertical rails of the rack.

   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.

TCP/IP and DNS Settings

Links within this page:

- TCP/IP and DNS Settings
- Configuring the PSA Using the Web Interface

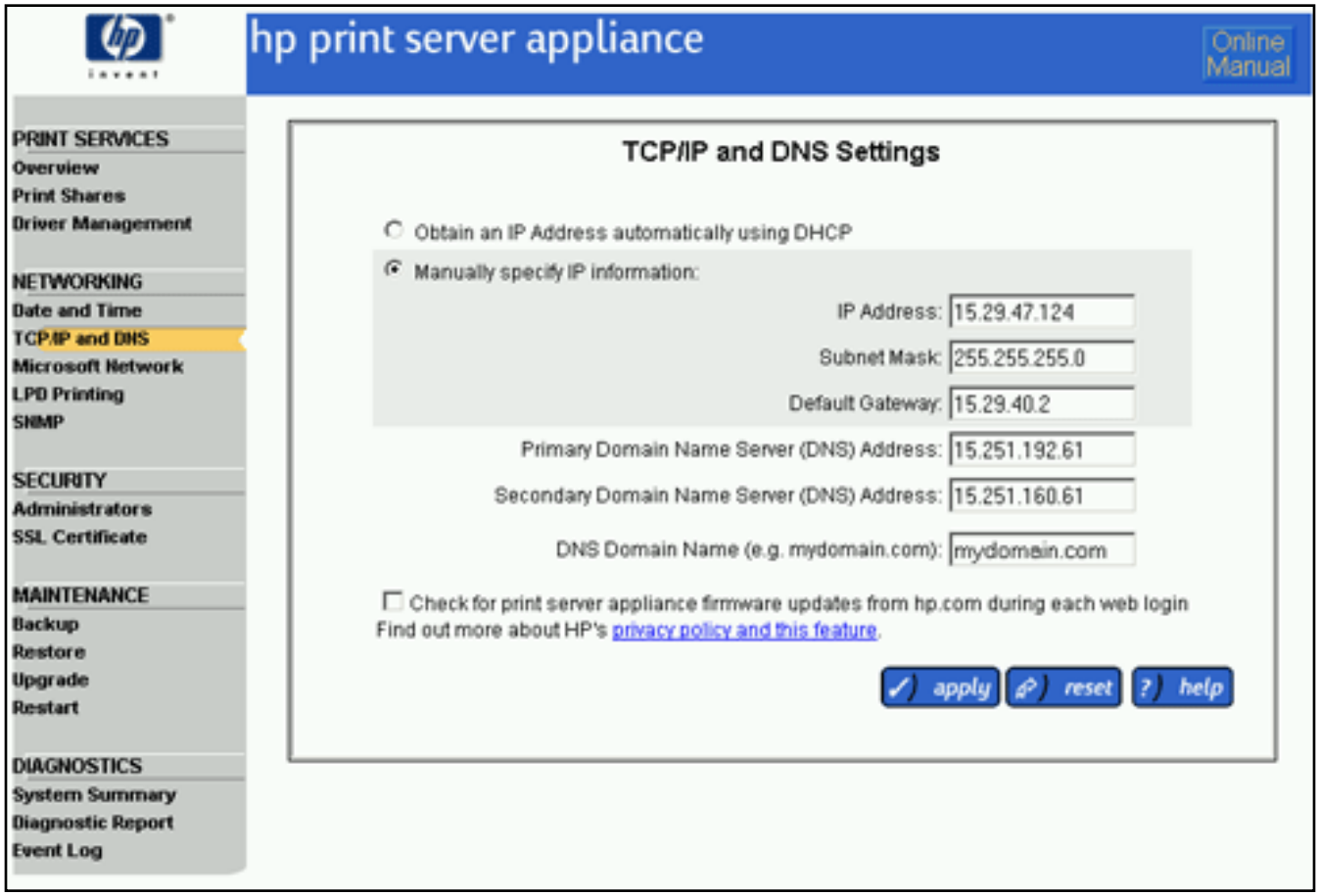
Links to related pages:

- Related System Messages
- Troubleshooting the PSA

TCP/IP and DNS Settings

The **TCP/IP and DNS Settings** page is accessible under **Networking** on the menu in the web interface. On this page, administrators can configure:

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



screen to change

Field Name	Description
Obtain an IP address automatically using DHCP	Select this option for the PSA 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 PSA. 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 PSA 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 PSA, or leave this field blank (or empty).
Primary Domain Name Server (DNS) Address	The DNS 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 primary DNS server by its IP address, not by its friendly name. Once the primary DNS is specified, use friendly names across other configuration areas of the PSA (such as the queue configuration screen). If the network does not have a DNS, leave this field blank (or empty).
Secondary Domain Name Server (DNS) Address	If the primary DNS is unavailable, this server will be contacted. Specify the secondary DNS server by its IP address, not by its friendly name. After this is server specified, use friendly names across other configuration areas of the PSA (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 host name). 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 PSA firmware updates during each web login	The Overview page can display new information regarding the PSA if this box is checked.

Configuring the PSA Using the Web Interface

1. At a workstation, access the web browser.
2. Log on to the PSA as an administrator (The default is "admin" for the user name and "admin" for the password.)
3. Complete the **TCP/IP and DNS Settings** page. See the description of the fields (above) for more information.
4. Click 

.

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 Network Settings

Links within this page:

Links to related pages:

- Troubleshooting the Appliance
- Related System Messages

Microsoft Network Settings Page

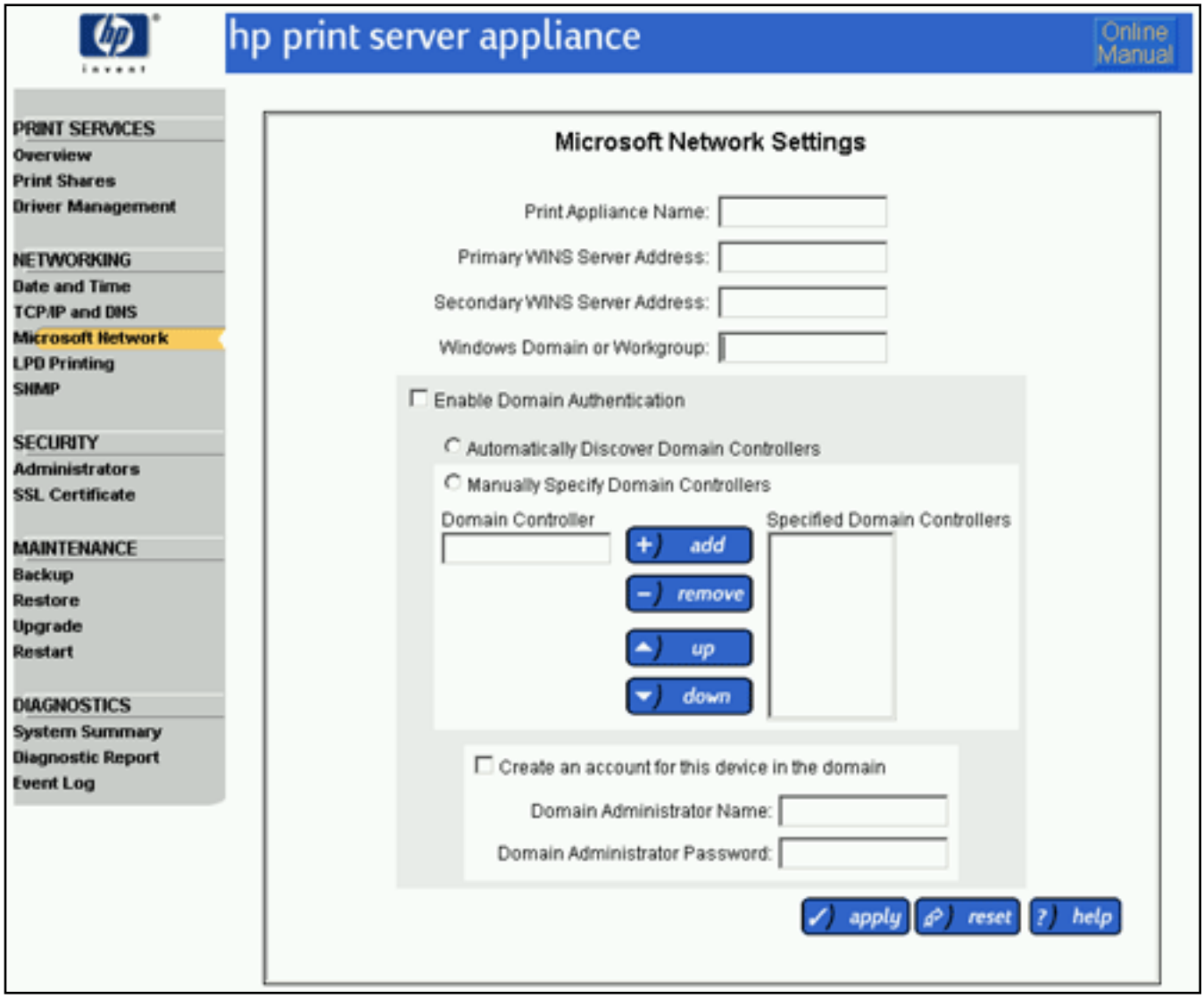
The **Microsoft Network Settings** page is accessible from the menu (under **Networking** in the web interface). On this page, administrators can:

- change the name of the PSA.
- identify the primary and secondary WINS server addresses.
- identify the Windows domain or workgroup.
- enable Microsoft Domain authentication.

Microsoft Network Settings Page	
Field Name	**Description**

Print Server Appliance Name	Type a name for the PSA. The PSA name will be displayed: • In the Network Neighborhood and in My Network Places on each client workstation. Both are visible from Microsoft Windows Explorer. • On the **Overview** page in the web interface for the PSA. • On the front panel of the PSA. If the network uses DNS to identify network resources, this name should match the DNS name. The PSA name can contain up to 15 alphanumeric characters. It may also contain hyphens (-) and underscores (_). (This name cannot begin with a hyphen (-), but it can have a hyphen within the name. The hyphen cannot be the first character because the PSA name is also used as a host name, and the hyphen character is not allowed as the first character in a host name.)
Primary 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 primary WINS server by its IP address, not by its friendly name. Once the primary WINS server is specified, use friendly names across other configuration areas of the PSA (such as the queue configuration screen). If the network does not have a WINS server configured, leave this field (and the next field) blank. Without a WINS server configured, Windows 95, 98, and ME clients may be unable to print to a PSA located on a different subnet. Domain integration may behave unpredictably if this field is blank.
Secondary WINS Server Address	If the primary WINS server is unavailable, this secondary server will be contacted. Specify the secondary WINS server by its IP address, not by its friendly name. If the network does not have a WINS server configured, leave this field blank (or empty).
Windows Domain or Workgroup	Specify the Windows domain or workgroup (NT, 2K, or Windows Server 2003) to which this PSA belongs. The PSA will appear under this name in Network Neighborhood.
Enable Domain Authentication	Check this box to enable domain security for the PSA (for NT, 2K, or Windows Server 2003). Uncheck the box to disable domain security. (The default is disabled.)
Automatically Discover Domain Controllers	Select this to automatically discover the domain controller for the domain or workgroup as specified above in the **Windows Domain or Workgroup** field (for NT, 2K, or Windows Server 2003) .
Manually Specify Domain Controllers	Select this to manually specify the domain controllers for NT, 2K, or Windows Server 2003.
Domain Controller	Type the domain controller's name or IP address to be added to the list of **Configured Domain Controllers**; click  to add it to the list.

Specified Domain Controllers	List of specified domain controllers to use for user name and password validation. The PSA will try to communicate with the first domain controller in the list. If the PSA cannot communicate with the first one, it will then try the second domain controller in the list, and so forth. If none of the domain controllers in the list are successfully contacted, the PSA will attempt to automatically discover a domain controller. Click  or  to reorder the domain controller names in the list. Click  to take a domain controller off the list. (This is only valid when in manual mode.)
Domain Membership Status	The current status of the PSA's membership in the domain (for NT, 2K, or Windows Server 2003).
Create an account for this device in the domain	Check this to create a new computer account for the PSA in the domain; then enter the domain administrator user name and password below. **Note:** A WINS server must be specified in the **WINS Server Address** field on this page.
Domain Administrator Name	A valid administrator's name as stored on the Domain Controller.
Domain Administrator Password	A valid administrator's password as stored on the Domain Controller.



To complete the **Microsoft Network Settings** page, follow these steps:

1. At a workstation, access the web browser and type the IP address for the PSA.
2. Log on to the PSA as an administrator. (The default user name is "admin" and the default password is "admin".)
3. Under **Networking** on the menu, select **Microsoft Network**. (See the description of the fields above for more information.)
4. Complete the **Print Appliance Name** field.
5. Complete the **Primary WINS Server Address** field.
6. Complete the **Secondary WINS Server Address** field.
7. Complete the **Windows Domain or Workgroup** field.
8. If the security feature for Windows authentication and authority is being used, complete the other fields on this page.
9. 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 Domain Authentication Features

A 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 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 user name and password of the domain.

The 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 spoolers).
- Assignment of permissions are on a per-printer basis.
- Disabling and enabling domain security and authority without losing configuration information.
- Setting or changing permissions using the web interface or native tools.
- Specifying selected groups that can have one of the following four permission levels for each printer, using native 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 print permissions that do not map directly to the above four permission levels)

Adding the PSA to a Domain

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

- Complete the fields on the **Microsoft Network Settings page**. Type the PSA name and then, at a minimum, select the box for **Create account for this device in the domain** 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 PSA can join the specified domain.

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

  1. Log on to the server as an administrator.
  2. Add the PSA to the domain using the Server Manager.
  3. Log on to the PSA as PSA Administrator using the PSA's web interface. (The default user name is "admin" and the default password is "admin".)
  4. Set the domain name on the **Microsoft Network Settings** page by completing the **Windows Domain or Workgroup** field.
  5. Enable Domain Authentication by checking the box **Enable Domain Authentication**.
  6. Click 

.

Enabling and Disabling Microsoft Domain Security

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

With Domain authentication disabled, local administrator accounts must be used to manage the PSA 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 Security page for a specific print share, assign domain users and/or groups appropriate access for that print share. The **Account(s) to Add to List** box (on the left) contains all of the group or user names within the selected domain. Select from this list to grant access to the print share and click 

. After the account has been granted access, its name will be moved from the **Account(s) to Add to List** box to the **Current Account(s) in List** box.

By default, every user on the PSA has print access to any newly created print share.

Administrator Accounts for the PSA

There are two types of administrator accounts on the PSA:

- **Local Administrator Accounts** - user names and passwords are stored on the PSA and are not synchronized with any domain accounts.
- **Domain Administrator Accounts** - user names and passwords are synchronized with domain accounts.

If domain authentication is enabled on the **Microsoft Network Settings** page, both local and domain administrator accounts can be added to the PSA.

If domain authentication is not enabled on the **Microsoft Network Settings** page, only local administrator accounts can be added to the PSA.

LPD

Links within this page:

Links to related pages:

- System Messages for LPD Printing
- Troubleshooting the PSA
- Configuring Printing for UNIX Clients

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 PSA from any RFC 1179-compliant LPD client including:

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

Note: Not all LPD implementations are RFC 1179-compliant.

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 PSA.

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

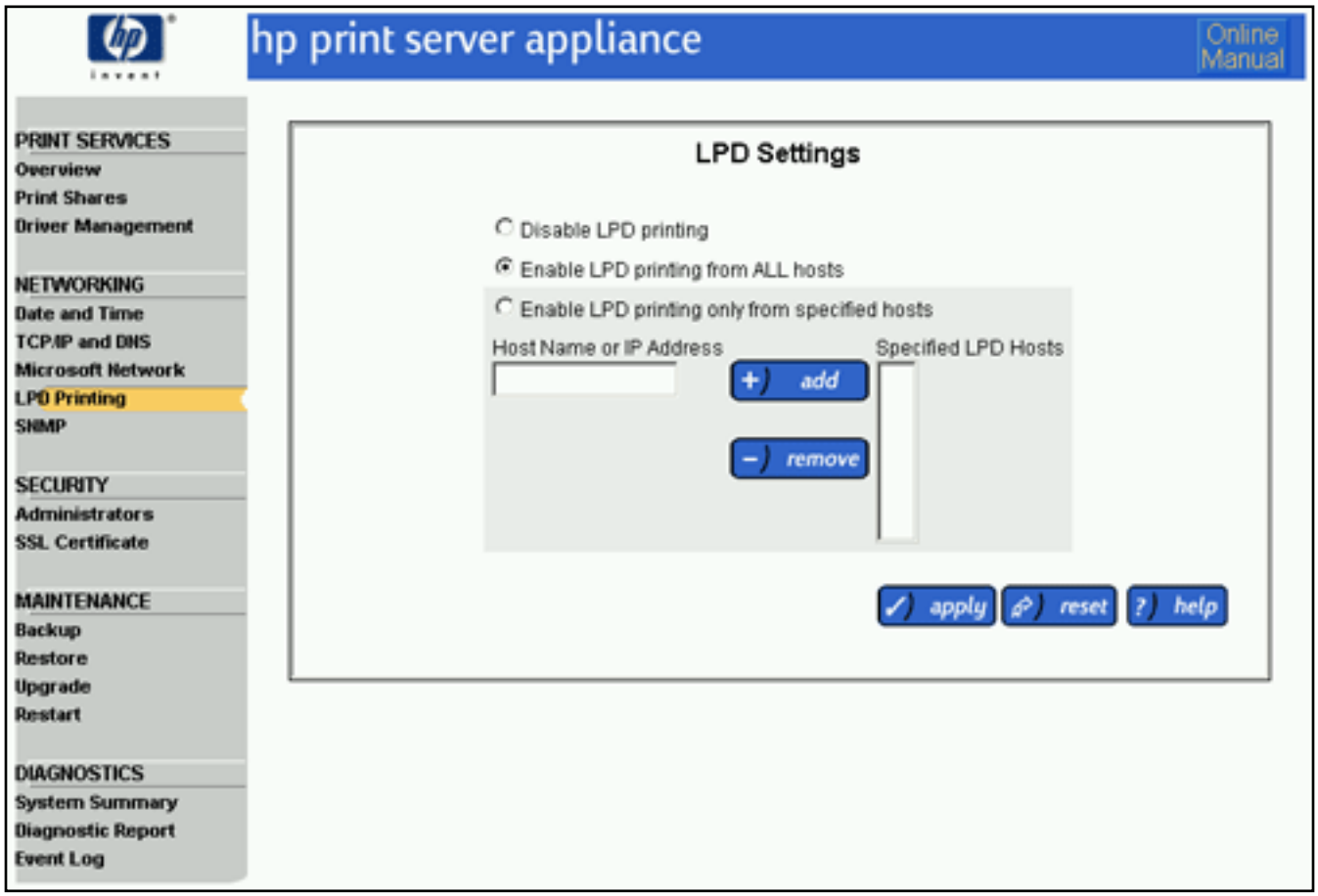
As a default, LPD printing is enabled for all hosts. Administrators can restrict printing to a certain set of hosts, if desired.

Note: The PSA 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 Printing

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

LPD Settings Page	
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 typed 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 typed. (Without the fully qualified name, this will not work.)
Host Name or IP Address	Type the host name 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, host name. domain.com or 1.160.10.240.
Specified LPD 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. In the web interface, click **LPD Printing** (on the menu under **Networking**).
2. Complete the fields as described above.

SNMP Settings

Links within this page:

Links to related pages:

- Related System Messages
- Troubleshooting the PSA

SNMP and the PSA

The SNMP agent supports MIB II (Management Information Base II), Host Resources MIB (portions), its own MIB, called the HP-PRINT-SPOOLER-APPLIANCE-MIB, SNMPv3, and SNMPv2 Traps.

Note: For a copy of the HP-PRINT-SPOOLER-APPLIANCE-MIB, check http://www.hp.com.

SNMP Traps

Users can register for traps using the following, as outlined in RFC#2573:

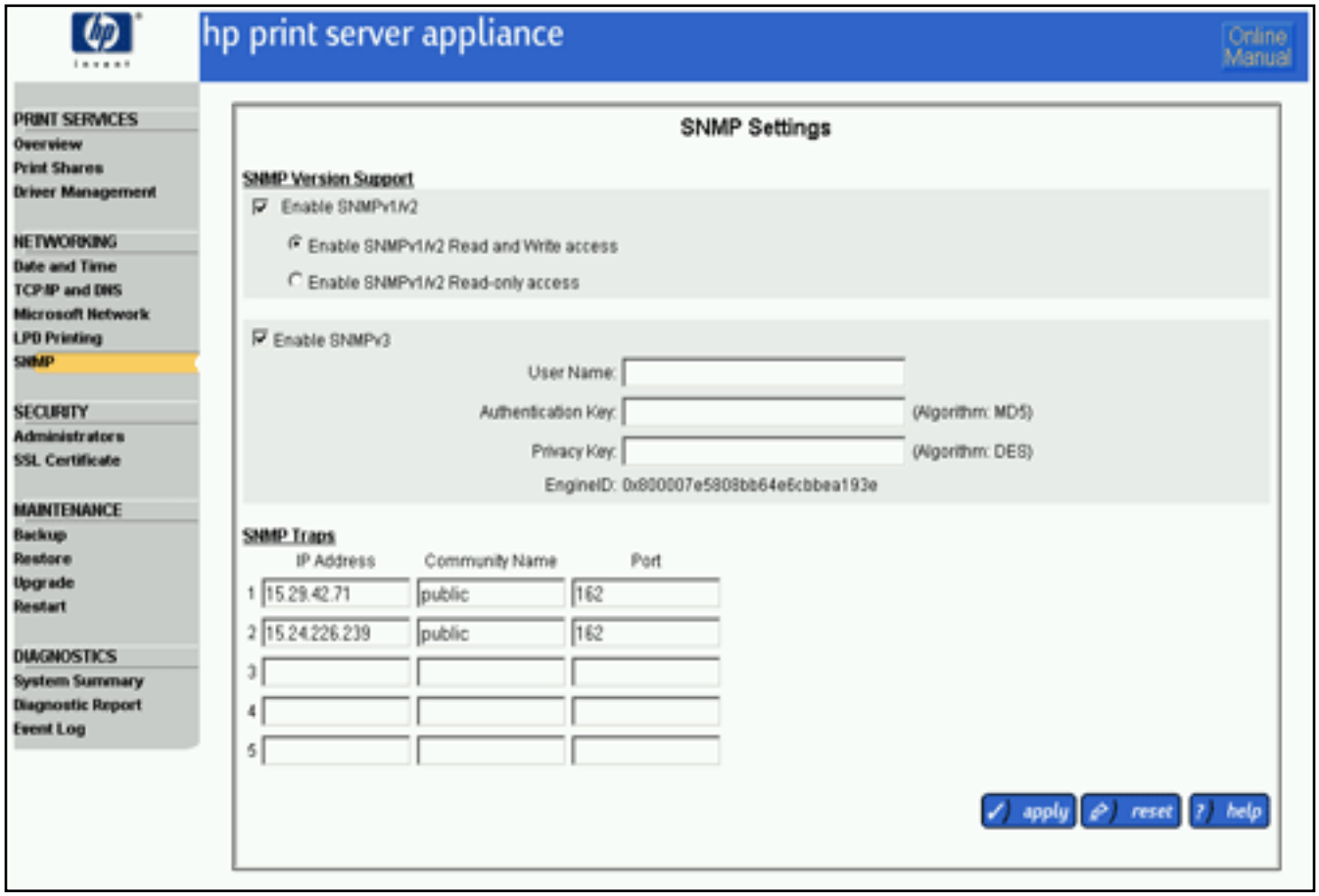
- snmpTargetAddrTable
- snmpNotifyTable
- snmpTargetParamsTable

Registering for traps through the tables can be difficult; it is recommended that only administrators familiar with the tables register for traps in this manner. A simple interface to the tables was added to the PSA's interface.

Registering for Traps

The **SNMP Settings** page is displayed when **SNMP** is selected (on the menu under **Networking**).

SNMP Settings Page	
Field Name	**Description**
Enable SNMPv3	Select this to enable SNMPv3. User account information will be saved and restored during a firmware upgrade.
User Name	User name must be between 2 and 32 characters long.
Authentication Key	Must be 32 characters long. Can be numbers 0-9 or characters a-f or A-F.
Privacy Key	Can be numbers 0-9 or characters a-f or A-F.
Engine ID	SNMP v3 engine's administratively unique identifier; used solely for identification, not for addressing.
SNMP Traps: IP Address	Type the IP address of where the trap is being sent.
SNMP Traps: Community Name	Type a community name for the trap packet. ("Public" is a common community name.)
SNMP Traps: Port	Specify the port number. (Most SNMP agents receive traps on port 162)



To register for traps, follow these steps:

1. At a workstation, access the web browser and type the IP address for the PSA.
2. Log on to the PSA as an administrator. (The default user name is "admin" and the default password is "admin".)
3. Under **Networking** on the menu, select **SNMP**. (See the description of the fields above for more information.)
4. In **IP Address**, type the IP address for where the trap is to be sent.
5. In **Community Name**, type a community name for the trap packet. "Public" is a commonly used community name.
6. In **Port**, specify the port number. Most SNMP agents receive traps on port 162.
7. Click 

to complete the registration process. The SNMP agent is shut down and restarted. This causes a trap to be sent out:

   1: coldStart 1.3.6.1.6.3.1.1.5.1.

Trap Testing

The OID snmpTrapTest (1.3.6.1.4.1.11.2.46.2.1.10.4) will cause a trap to be sent to each registered host when set to an integer value. For example, if an SNMP set is done on 1.3.6.1.4.1.11.2.46.2.1.10.4.0 with a value of 15, each registered host will receive the trap TrapTest (1.3.6.1.4.1.11.2.46.2.2.0.100).

Trap Format

The PSA can generate three different traps:

- **coldStart**
  STATUS: current
  DESCRIPTION: A coldStart trap signifies that the SNMPv2 entity, acting in an agent role, is reinitializing itself and that its configuration may have been altered.
  ::= { snmpTraps 1 }
- **trapTest**
  OBJECTS: {snmpTrapTest}
  STATUS: current
  DESCRIPTION: When a set is done on trapTest this notification will be sent out.
  ::= { psaEventV2 100 }
- **logEventCriticalAlert**
  OBJECTS: { logCriticalCategory, logCriticalID, logCriticalMessageNumeric, logCriticalMessageString }
  STATUS: current
  DESCRIPTION: When a new critical entry is added to the logTable a notification of this type will be sent to all entities registered for this notification.
  ::= { psaEventV2 1 }

  This trap corresponds to critical entries in the Event Log. Six different events have been defined as critical:
  - Cannot communicate with any domain controllers. Domain name:
  - Cannot communicate with any WINS servers.
  - Cannot communicate with any DNS servers.
  - Cannot connect to printer-connection refused by printer.
  - Cannot print due to problem at the printer.
  - Critically high disk utilization - disk utilization is at 90-100% of capacity. If this log is added to the event log the following trap will be sent.

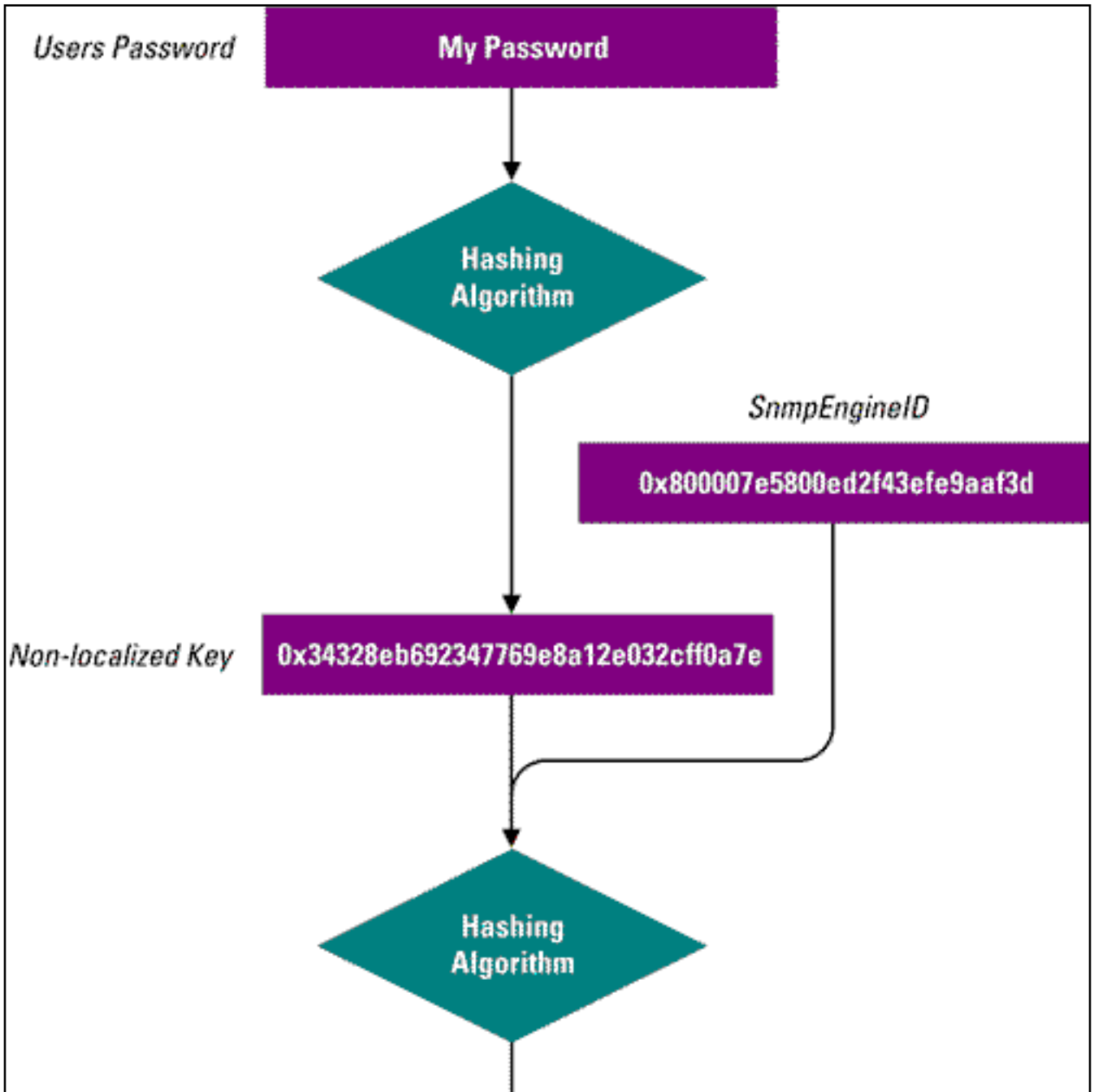
    logEventCriticalAlert notification received
    Community: public
    Bindings (6)
    #1: sysUpTime.0 0 days 00h:00m:32s.52th
    #2: snmpTrapOID.0 logEventCriticalAlert

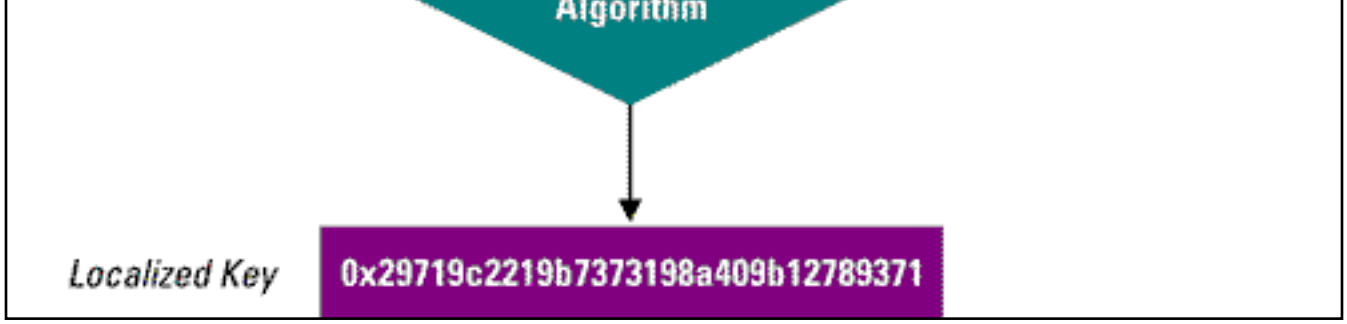
#3: logCriticalCategory administrative(3)
#4: logCriticalID 110
#5: logCriticalMessageNumeric NULL
#6: logCriticalMessageString Critically high disk utilization - disk utilization is at 90-100% of capacity.

SNMPv3

The SNMPv3 RFCs do not specify a mechanism for creating the initial SNMPv3 account. The initial account creation is left to the developer. Users can create the initial account and add it to the PSA using one of two methods: using the web interface (covered in this document) or using SNMP (intended for use by other applications and not covered in this document).

SNMPv3 security relies upon the creation of two separate keys: one for encryption and the other for authentication. The keys are hex strings. To make hex strings easy to remember, two different algorithms for turning passwords into keys were defined for use: HMAC-MD5-96 and HMAC-SHA-96. Once the key is generated from the passwords, the key can be localized to a specific SNMP agent by combining the key with the SNMP agent's engine ID and then by running a hashing algorithm on the combined pair. The following flowchart illustrates this.





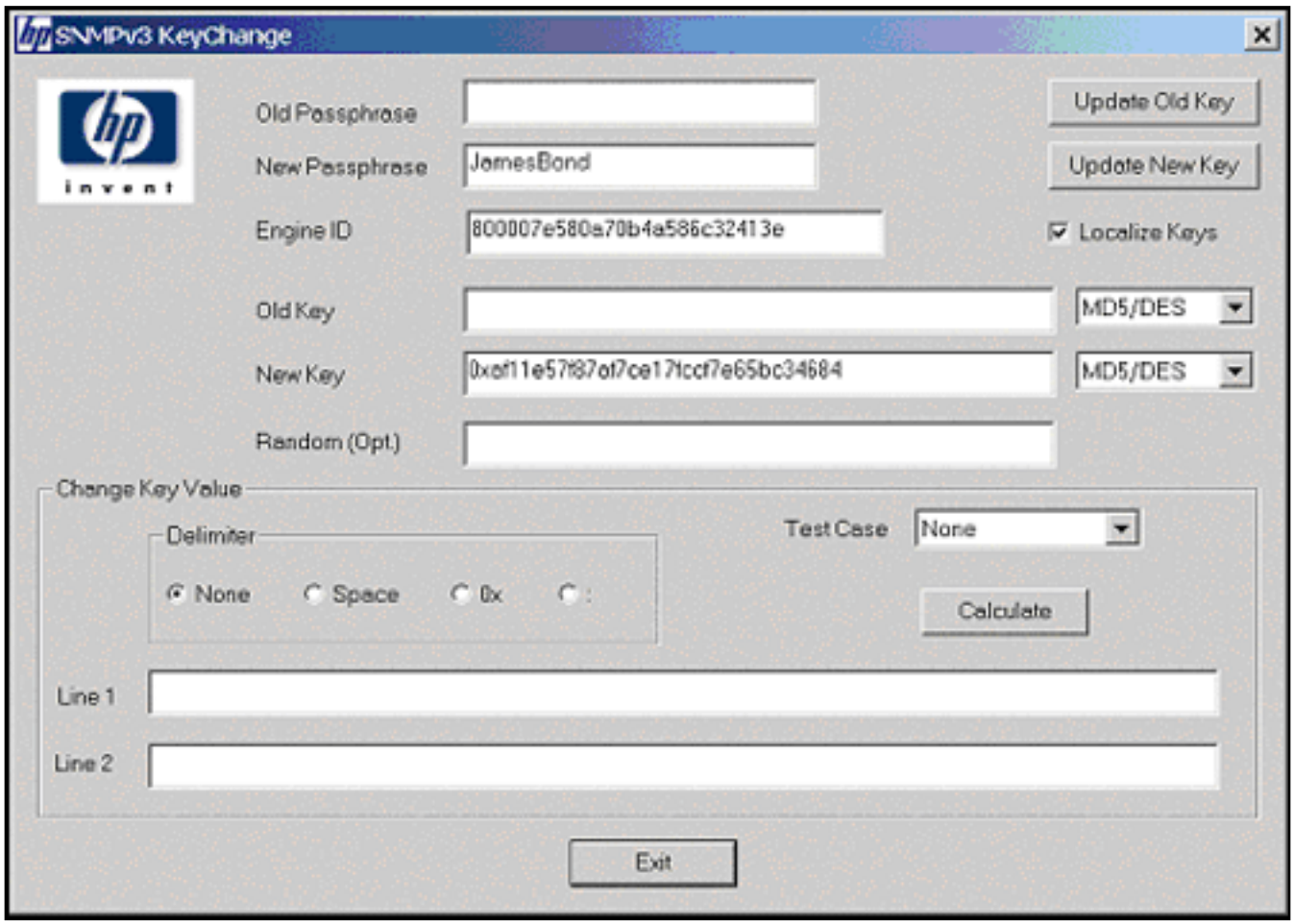
Initial Account Creation Through the PSA's Web Interface

Using the PSA's web interface, users can create an SNMPv3 account by supplying a user name, an authentication key, and a privacy key. The PSA will except either a localized or non-localized key, but not a password. This was done by design to maintain backward compatibility with other JetDirect products. How a user determines whether to use a localized or non-localized key largely depends upon the SNMP application that will be used to communicate with the PSA. If an SNMP application that is highly configurable such as "Mg-Soft Mib Browser" is being used, then a user can use a non-localized key. However, if the user is using a less configurable tool, such as the net-SNMP tools, the user may have to type a localized key that was generated from a password.

Note: A valid key is 32-characters long and only contains the characters 0-9, a-f, and/or A-F.

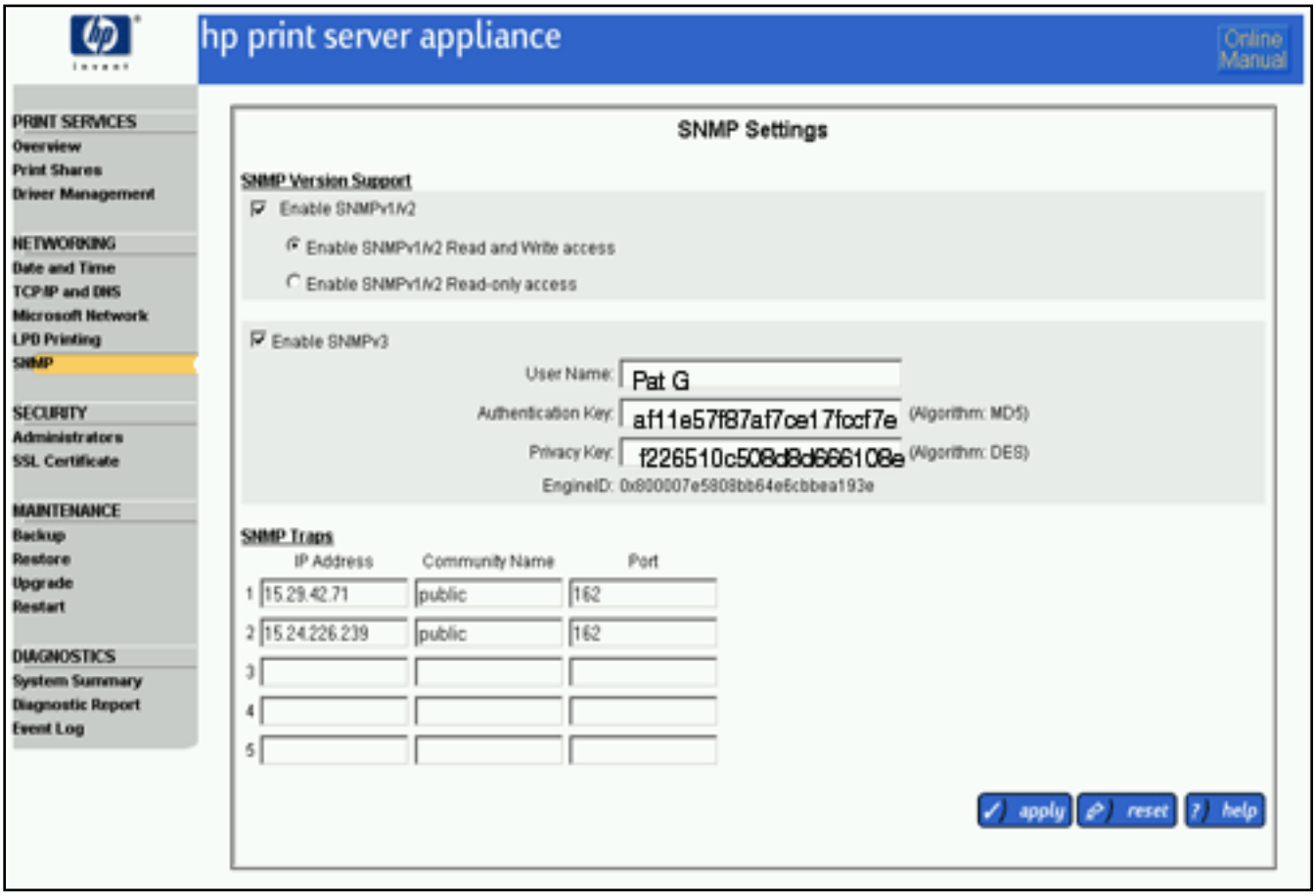
Initial Account Creation Using Passwords

Since the PSA only accepts authentication keys, users must first convert their password to a key. Follow these steps to convert a password to a key:



1. Start the application KeyChange.exe that is supplied on the CD shipped with the PSA.
2. Create the Authentication Key:

   a. In **New Passphrase**, type the password. Use the engine ID you wish to communicate with (on the **SNMP Settings** page in the web interface under **Networking**). Do not include the beginning "0x" which indicates the value is given in hexadecimal.
   b. Click **Update New Key**. This value, excluding "0x", is the authentication key. Copy this key (omitting the "0X") and paste it into the **Authentication Key** field on the **SNMP Settings** page (on the menu in the PSA's web interface under **Networking**).
3. Create the Privacy Key:
   a. In **New Passphrase**, type the password. Use the engine ID you wish to communicate with(on the **SNMP Settings** page in the web interface under **Networking**). Do not include the beginning "0x" which indicates the value is given in hexadecimal.
   b. Click **Update New Key**. This value, excluding "0x", is the privacy key. Copy this key (omitting the "0X") and paste it into the **Privacy Key** field on the **SNMP Settings** page (on the menu in the PSA's web interface under **Networking**).



4. Click 

.

Removing the SNMPv3 Account

To remove the SNMPv3 account, uncheck the **Enable SNMPv3** box and click 

. This will destroy all SNMPv3 accounts that have been created including accounts that were cloned from the original. It is also important to note that the SNMP agent's engine ID will change each time the SNMPv3 account is deleted.

Print Shares

Links within this page:

Links to related pages:

- Installing Printers on Clients
- Related System Messages
- Troubleshooting the PSA

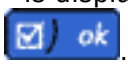
Print Shares Option

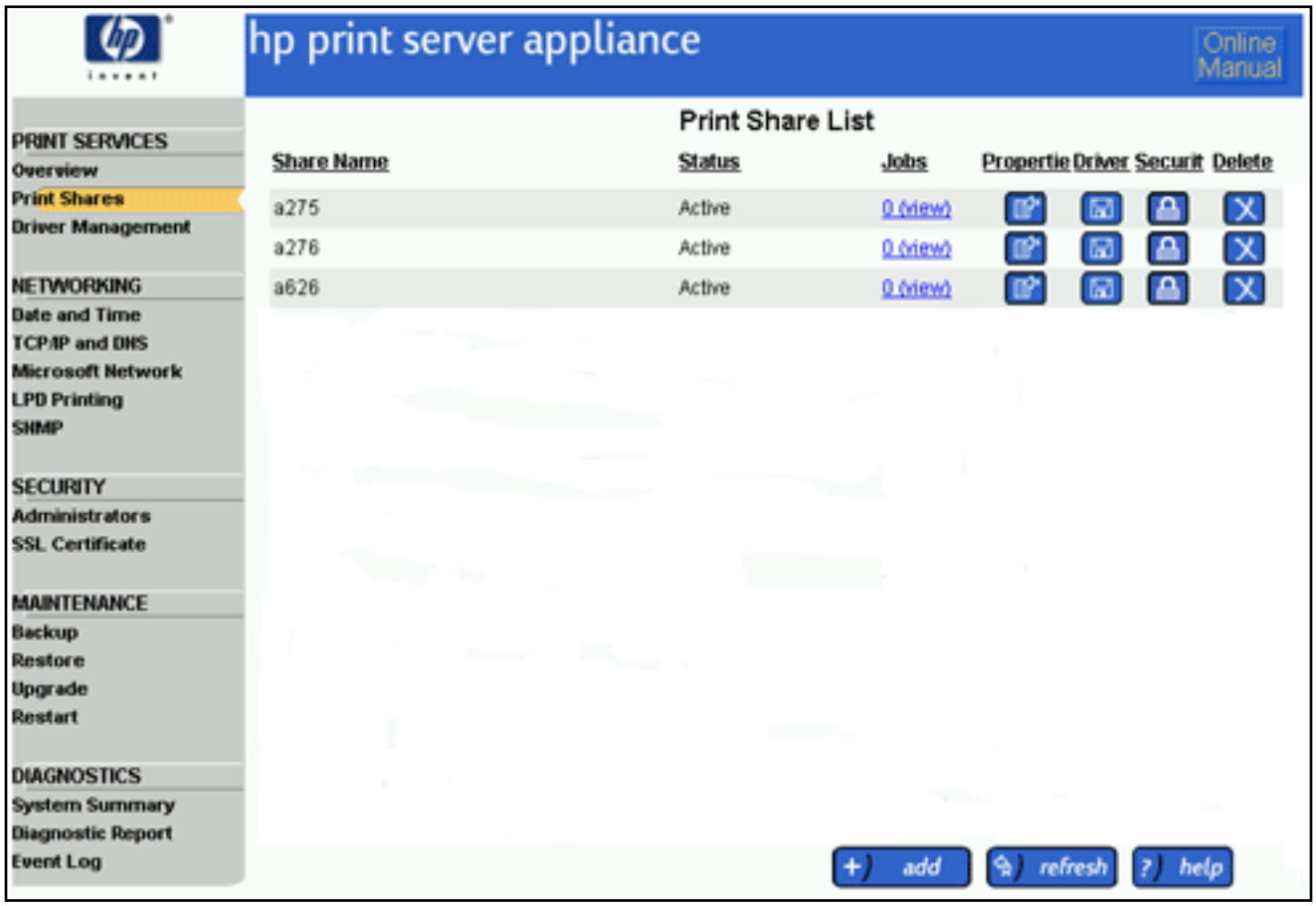
After **Print Shares** is selected from the menu (in the web interface under **Print Services**), the **Print Share List** page is displayed. On this page, administrators can:

- view and manage print jobs
- add print shares
- modify existing print shares
- delete a print share (and all of its jobs)

Print Share List Page

Field Names	Description
Share Name	Name of the print share as typed in the **Print Share Name** field on the **Add Print Share** page in the web interface. This name is displayed in Network Neighborhood or in My Network Places as an available print share configured on the PSA. The print share name can be up to 79 characters long, including alphanumeric characters and the following special characters: _ - . ?. (Print share 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.)
Status	Status of the print share: • **Active** • **Cannot be contacted** (The printer cannot be found. It does not respond to a network query or ping.) • **Connected** • **Disabled** • **Door open** • **Error** • **Error-Printer Unknown** • **Low paper** • **Low toner** • **LPD not supported** • **No paper** • **No toner** • **Offline** • **Online** • **Paper jam** • **Paused** • **Service required** • **Unknown state**
Jobs	Number of print jobs waiting to be printed on the corresponding print share.
Properties 	Displays the **Properties** page. Use this page to: • display and/or modify the properties of a selected print share, including the print share's name, IP address, or description. • pause and resume printing from the print share. • print a test page.
Driver	Displays the **Driver** page on which the driver for the print share can be viewed or changed.
Security	Displays the **Security** page.

Delete (Print Share) 	To delete a print share from the PSA, follow these steps: 1. Find the print share to delete from the PSA and click  on that same line. 2. The message, "Are you sure you want to delete the print share and all of its print jobs?" is displayed. 3. Click  . The selected print share and all of its print jobs will be deleted.



Adding a Print Share to the PSA

While there is no fixed limit on the number of print shares that can be attached to the PSA, 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 PSA, 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), the speed of your printer(s), and how many print shares are installed on the PSA.

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

The following postscript printer drivers for Windows 9x and NT are factory-installed. These drivers, and any others that have been added to the PSA, can be associated with a print share on the PSA. The HP LaserJet 4 has both the postscript and PCL drivers installed; the default is the PCL driver.

Note: When upgrading to 2.5.x, drivers that were installed prior to the upgrade will be available.

HP Business Inkjet Printers	
HP Business Inkjet 2280 series printers	HP Business Inkjet 3000 series printers
HP Color LaserJet Printers	
HP Color LaserJet 2500 series printers	HP Color LaserJet 5500 series printers
HP Color LaserJet 4500 series printers	HP Color LaserJet 8500 series printers
HP Color LaserJet 4550 series printers	HP Color LaserJet 8550 series printers
HP Color LaserJet 4600 series printers	
HP LaserJet Printers	
HP LaserJet 4 series printers	HP LaserJet 4050 series printers
HP LaserJet 4/4M Plus printer	HP LaserJet 4100 series printers
HP LaserJet 4Si printer	HP LaserJet 4200 series printers
HP LaserJet 4V printer	HP LaserJet 4300 series printers
HP LaserJet 5/5M series printers	HP LaserJet 5000 series printers
HP LaserJet 5Si series printers	HP LaserJet 5100 series printers
HP LaserJet 6P/6MP series printers	HP LaserJet 8000 series printers
HP LaserJet 2100 series printers	HP LaserJet 8100 series printers
HP LaserJet 3300 series printers	HP LaserJet 8150 series printers
HP LaserJet 4000 series printers	HP LaserJet 9000 series printers

To add a print share, see the next section.

Note: If Domain Authentication is enabled (on the **Microsoft Network Settings** page), the administrator must either have a local account on the PSA with the same user name and password as their domain account, or a domain account for the administrator must be added to the PSA. If Domain Authentication is not enabled, the administrator logged onto the PC must have a local administrator account with the same name and password as their domain account.

Adding a Printer to the PSA, or Using the Add Print Share Wizard

While there is no fixed limit on the number of printers that can be attached to the PSA, 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 PSA, 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 PSA.

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

Numerous printer drivers are factory-installed. Click here to see a list of those drivers.

To add a printer, follow these steps:

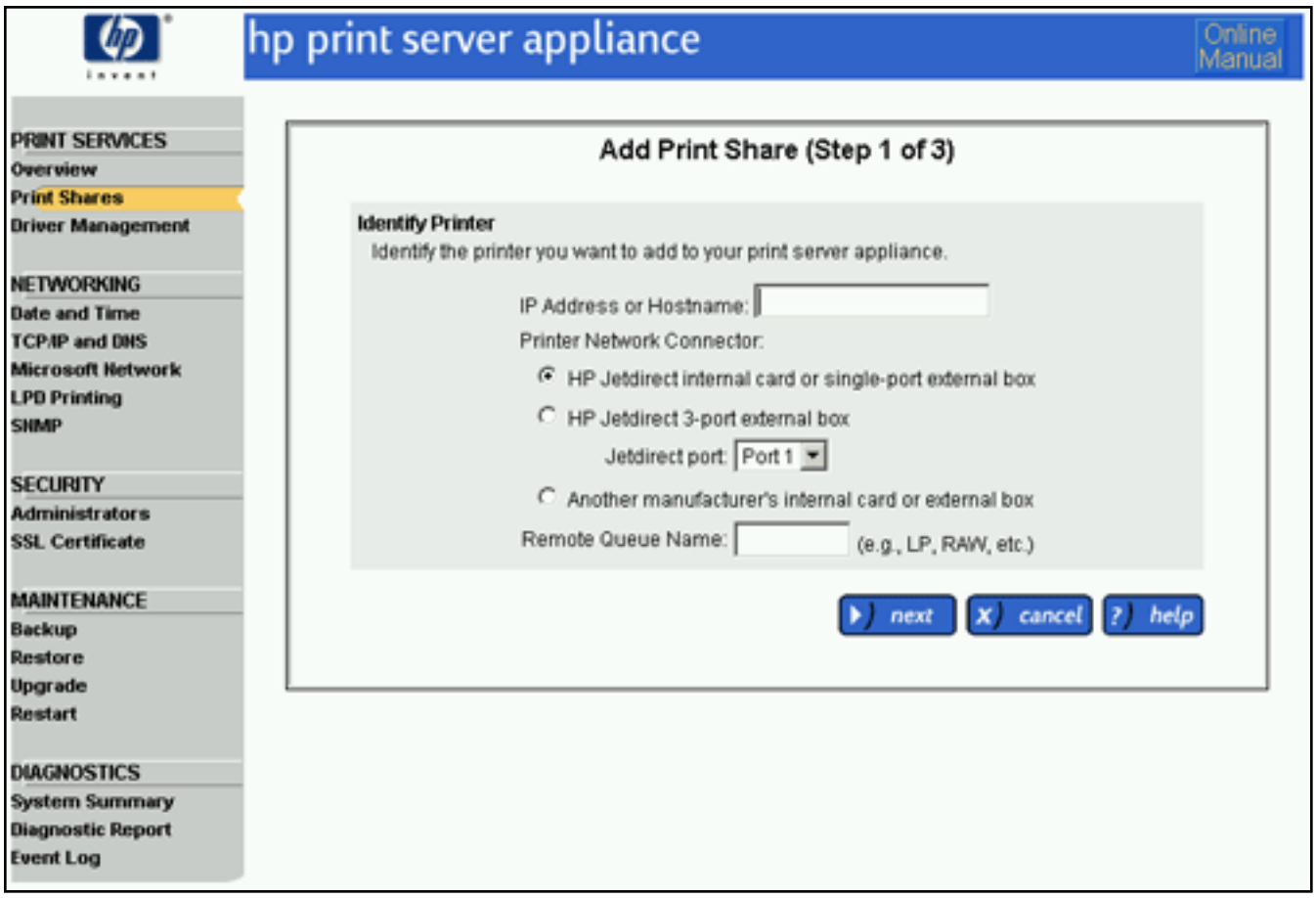
Note: If Domain Authentication is not enabled (on the Microsoft Networking Settings page), the administrator logged onto the PC must have a local administrator account with the same name and password as their domain account. If Domain Authentication is enabled, the administrator must either have a local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

1. Select **Print Shares** (in the web interface under **Print Services**).
2. Click 

. The **Add Print Share** wizard will be launched.
    - **Add Print Share (Step 1 of 3)**: Type the IP address or hostname and the network connection for the print share being added.

Add Print Share (Step 1 of 3) Page	
Field Names	**Description**
IP Address or Hostname	DNS name or IP address of the network printer that will be servicing the print jobs in this queue (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 PSA in the **TCP/IP and DNS Settings** page. The name must be alphanumeric and can contain hyphens (-) and periods (.).
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 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. This field is case-sensitive. Refer to the lpr or UNIX printing section of the print server manual. (For example, Xerox printers use a remote queue name

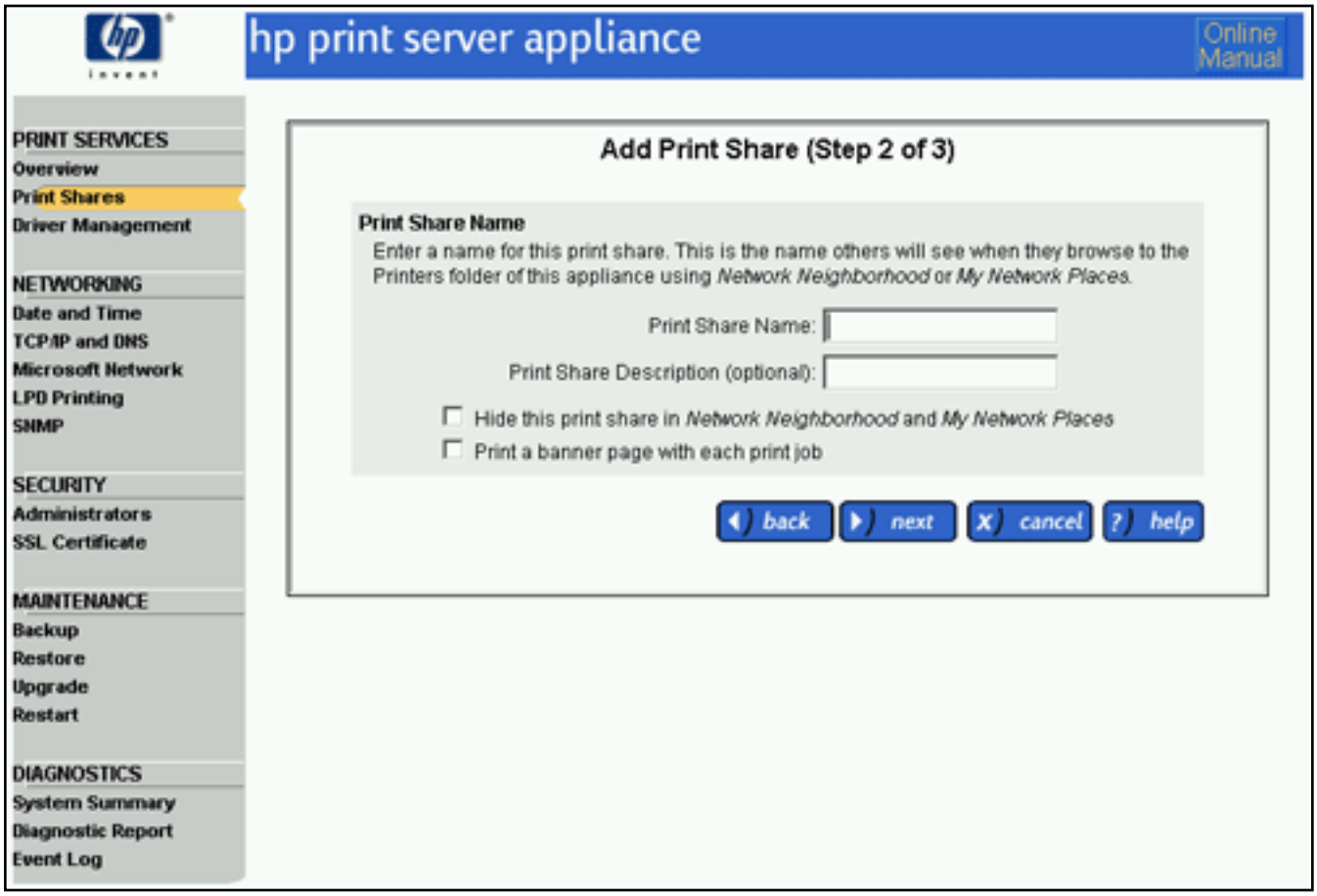
	of "LP" (and not "lp") while other manufacturer of print servers or systems administrators may choose different names.)



- **Add Print Share (Step 2 of 3)**: Type the print share name and description.

Add Print Share (Step 2 of 3) Page	
Field Names	**Description**
Print Share Name	The print share name is displayed in Network Neighborhood or in My Network Places as a print share configured on the PSA. It can be up to 79 characters long, including alphanumeric characters and the following special characters: _ - + , . (Print share 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.)
Print Share Description (optional)	Description of the print share.

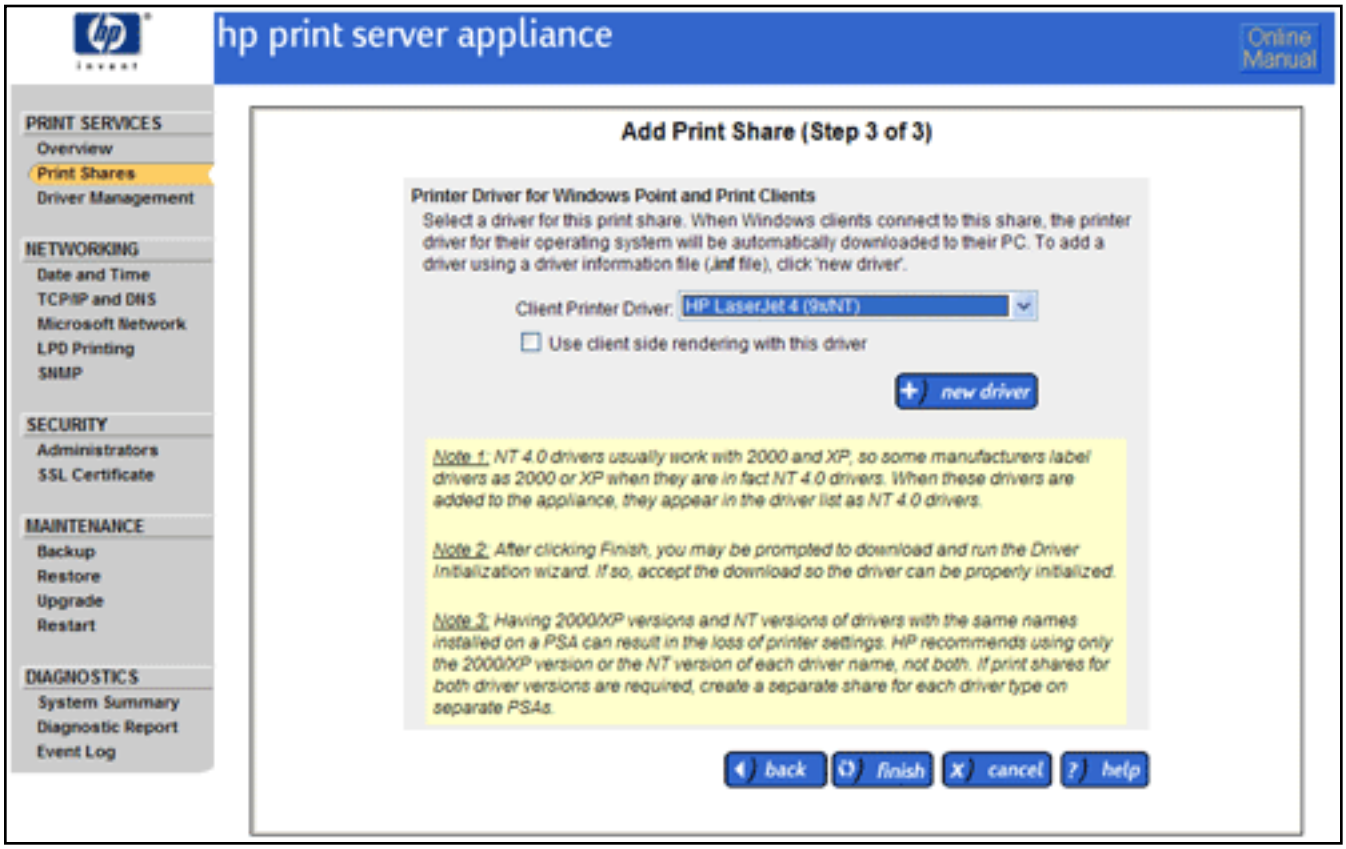
Hide this print share in *Network Neighborhood* and *My Network Places*	Select this option to hide this print share's name in Network Neighborhood or in My Network Places for clients. (This does not prevent the print share from being used, just from being displayed in Network Neighborhood or in My Network Places.)
Print a 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.)



- **Add Print Share (Step 3 of 3)** :

Add Print Share (Step 3 of 3) Page	
Field Names	**Description**
Client Printer Driver	Displays all printer drivers currently installed on the PSA, 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.

Client Side Rendering	Do not select this option unless you are having problems with your W2K drivers working properly. Symptoms include trouble with: ▪ N-up (printing multiple pages in a reduced format on one page) ▪ booklet style (format the print job into a printed booklet) ▪ watermark (print a watermark on each page of the document) ▪ ZoomSmart (scales a letter-sized/A4 document or poster to tabloid/A3, or vice versa) ▪ back-to-front (prints the document in reverse order) ▪ rotate 180 degrees (rotates the document layout but not the paper) If you are having problems with any of these features, first update the firmware. If the problem persists, reinstall the driver and select the "Use client side rendering with this driver" checkbox when selecting the driver to use with the print share. The problem should then be resolved.



Select the printer driver for the print share being added. The **Print Share List** will be displayed. If the driver is displayed in the **Client Printer Driver** field, click finish.

To use the CSR compatible driver for 2K and XP clients only, click on **Use client side rendering with this driver**.

Note: NT clients will not be able to use this print share if a CSR driver is attached to this share.

If the printer driver for the print share is not displayed in the drop-down list on this page, click

. A security warning is displayed. Click **Yes** to continue and then follow the steps to add the printer driver and associate it with the print share just added.

Note: After the PSA has been configured and drivers have been associated with print shares, the configuration should be backed up.

Note: Having Windows 2000/XP versions and NT versions of drivers with the same names installed on a PSA can result in the loss of printer settings and functionality (e.g., inability to print in landscape mode or loss of watermarks). To eliminate this risk of lost printer functionality, HP recommends two workarounds:

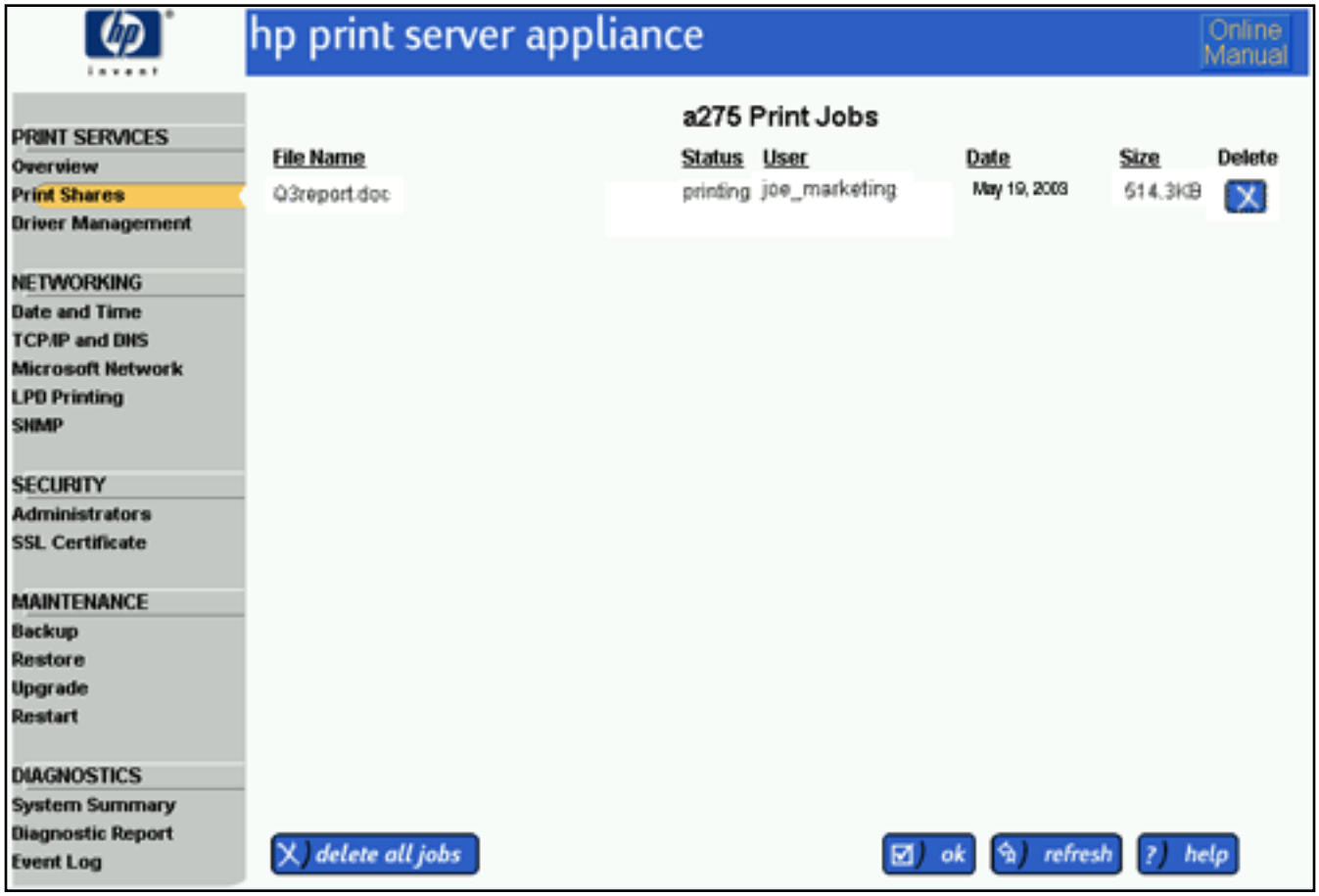
1. Install and distribute only NT printer drivers on the PSA for all of the NT, 2K, and XP clients; or
2. If print shares for both driver versions are required, create a separate share for each driver type on separate PSAs. This only affects NT and 2K/XP printer drivers and not 9X drivers. 9X drivers can still be installed along with NT or 2000/XP drivers.

For more information, please refer to the white papers on client migration from NT to 2K/XP clients (http://www.hp.com/go/psa_whitepapers).

Viewing and Managing Print Jobs

Use the **Print Jobs** page to view the jobs for a selected print share:

Print Jobs Page	
Field Names	**Description**
File Name	Name of the file(s) or print job(s) for this print share.
Status	Status of the print job: • **Printing**: currently printing on the print share. • **Paused**: user paused the print job. • **Spooling**: job is being spooled to the PSA 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).
User	Name of the client user who submitted each print job.
Date	Date the print job was sent.
Size	Size of the print job (in bytes).
Delete	Delete this specific print job.



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

1. Select **Print Shares** (in the web interface under **Print Services**). The **Print Share List** page is displayed.
2. Find the appropriate print share and click in the **Jobs** column for that print share. The **Print Jobs** page is displayed.
3. To delete a print job, click  on the line for the print job. Or click  to delete all jobs (as displayed) for the print share.
4. Click refresh to update the page or click  to return to the **Print Share List** page.

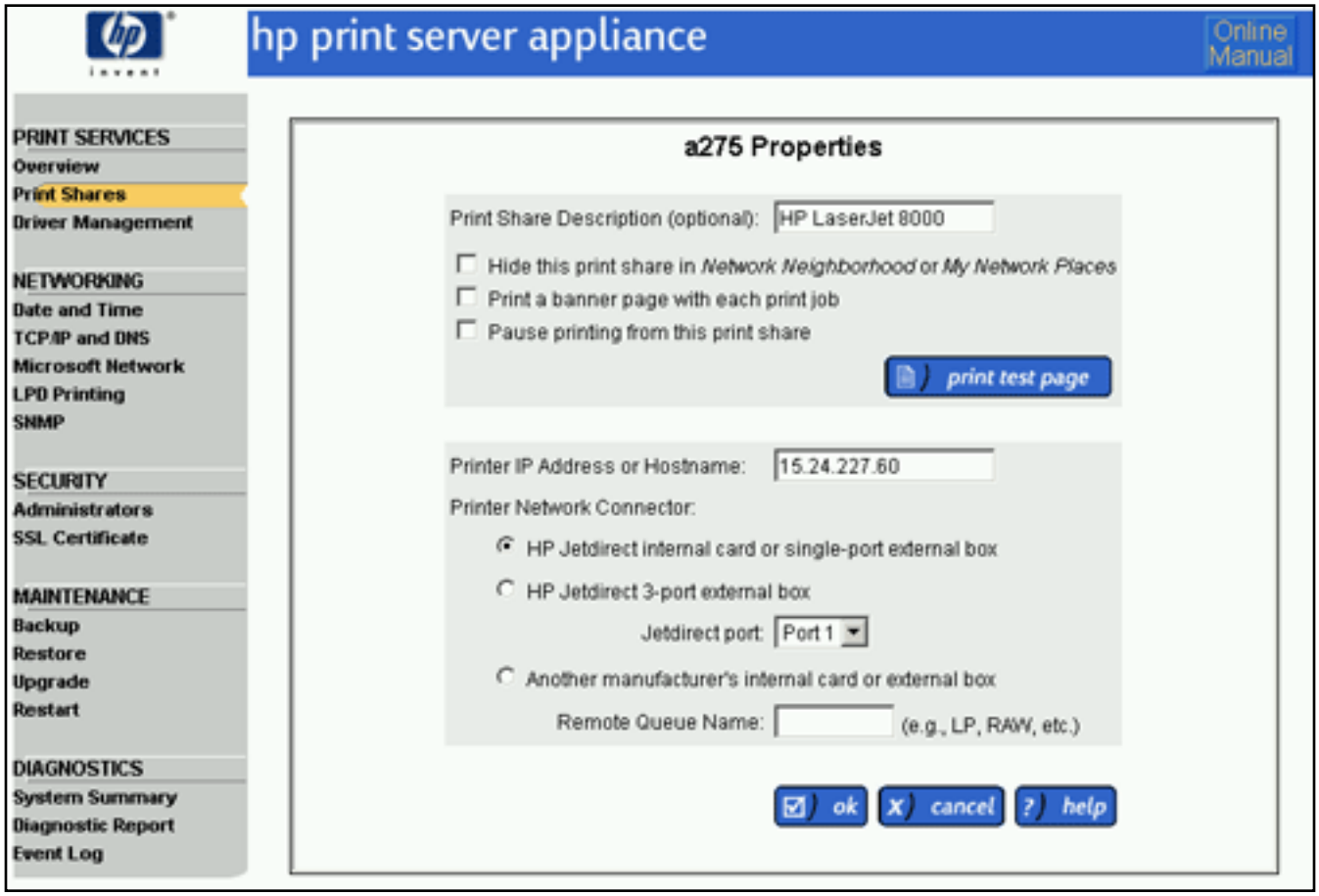
Print Share Properties

The **Print Share Properties** page is displayed when **Properties** is selected for a specific print share on the **Print Share List** page. Use the **Properties** page to:

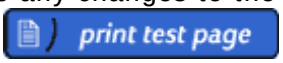
- display and/or modify the properties of a selected print share, including the print share's name, printer's IP address, or description
- pause and resume printing from the print share
- print a test page

Properties Page	
Field Names	**Description**

Print Share Description (optional)	Description of the print share.
Hide this print share in *Network Neighborhood* or *My Network Places*	Select this to hide this print share's name in Network Neighborhood or in My Network Places for clients. (This does not prevent the print share from being used, just from being displayed in Network Neighborhood or in My Network Places.)
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 print share	Check this box to pause printing from this print share. To resume printing from this print share, clear this box.
Printer IP Address or host name	IP address or host name 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, hpprint share.mycomputer.com or 192.0.0.192) . In order to use the DNS name, a DNS server address must be configured on the PSA in the **Microsoft Network Settings** page (in the web interface under **Print Services**). The name must be alphanumeric and can contain hyphens (-).
Printer Network Connector	• 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 the port to which the printer is connected. • 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".)



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

1. Select **Print Share** (in the web interface under **Print Services**).
2. Click  for the print share.
3. If desired, make any changes to the print share's properties.
4. If desired, click  to print a test page.
5. Click  . The **Print Share List** page is displayed again.

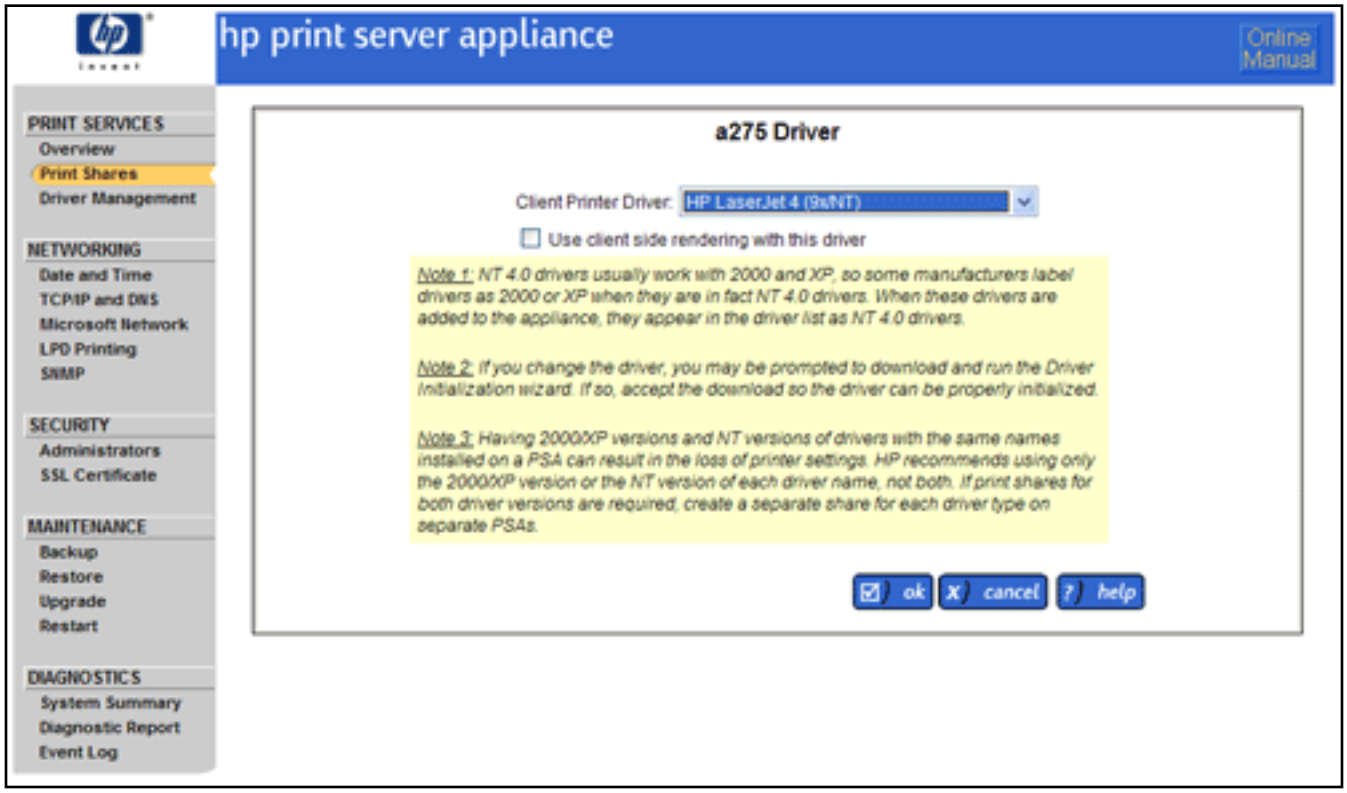
Printer Driver Page

The **Driver** page is displayed when **Drivers** is selected for a specific print share on the **Print Share List** page.

The **Drivers** page displays all printer drivers that are installed on the PSA. A different printer driver can be selected in the list of installed drivers for the specified print share. (See also Printer Driver Management.) The print share name is displayed at the top of the **Drivers** page. This is the name of the print share as typed in the **Print Share Name** field on the **Add Print Share** page in the web interface. This name is displayed in Network Neighborhood or in My Network Places as an available print share configured on the PSA.

Drivers Page	
Field Name	**Description**

Client Printer Driver	Displays all printer drivers added to the PSA, and highlights the driver currently associated with the specified print share. To change the driver for the print share, highlight a different driver and click ok.
Client Side Rendering	Do not select this option unless you are having problems with your W2K drivers working properly. Symptoms include trouble with: • N-up (printing multiple pages in a reduced format on one page) • booklet style (format the print job into a printed booklet) • watermark (print a watermark on each page of the document) • ZoomSmart (scales a letter-sized/A4 document or poster to tabloid/A3, or vice versa) • back-to-front (prints the document in reverse order) • rotate 180 degrees (rotates the document layout but not the paper) If you are having problems with any of these features, first update the firmware. If the problem persists, reinstall the driver and select "Client side rendering" on this page. The problem should then be resolved.

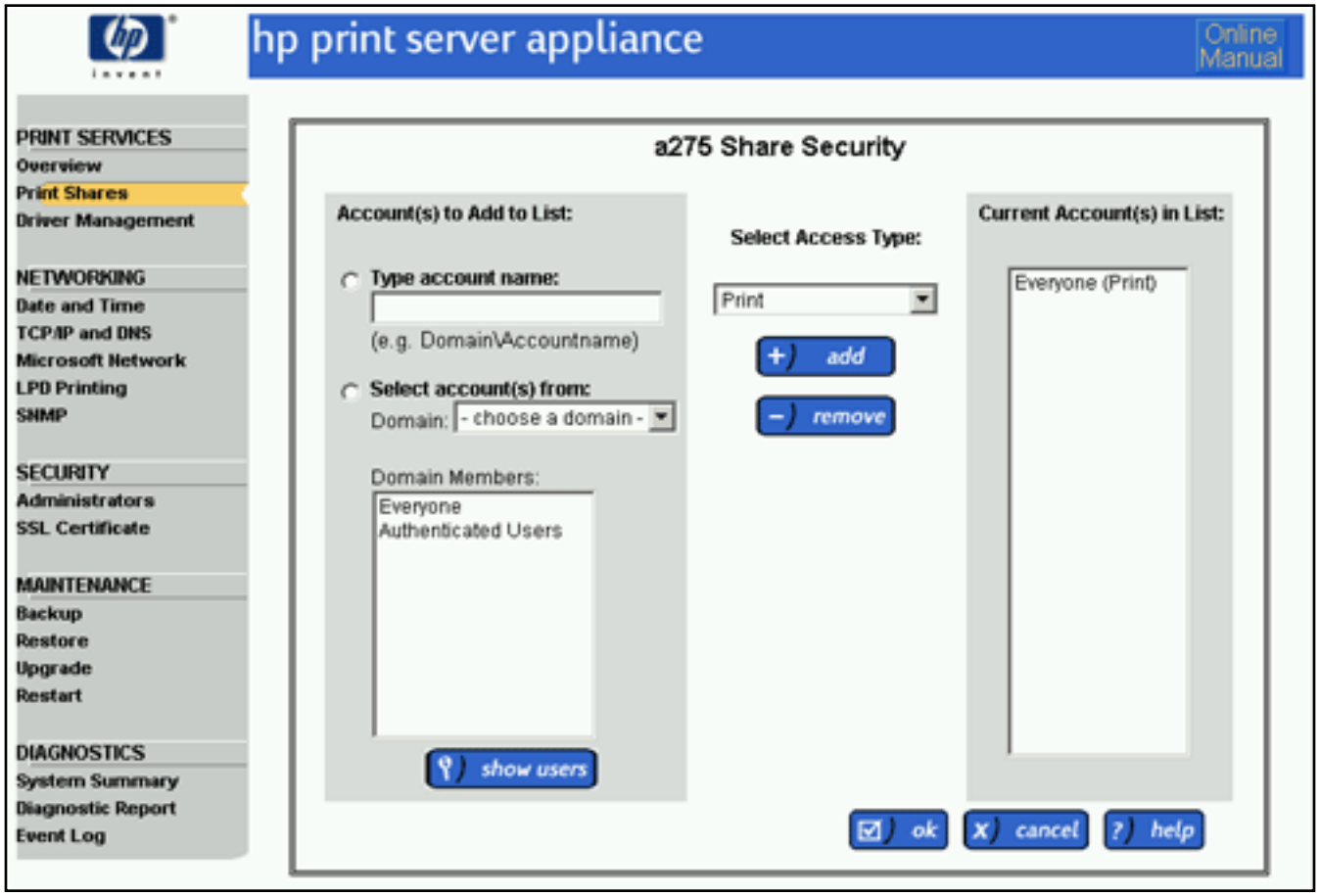


Print Share Security Page

The **Print Share Security** page is displayed when **Security** is selected for a specific print share on the **Print Share List** page. The **Print Share Security** page shows print share security information if NT Domain security is enabled (an NT domain is specified on the Microsoft Network 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".

Print Share Security Page	
Field Name	**Description**
Type account name	Type the account name in the format **Domain\Accountname**.
Select accounts from	This drop-down list contains names of the primary domain and all trusted domains. Select one from which to select accounts.
Domain Members	Shows all of the NT groups on the domain specified in the above field. To show users also, click  . Highlight the group or user and click  . The user or group will be added to the list shown under **Current Account(s) in List** with the level of access indicated in parentheses. (To highlight multiple groups/users, use the **Control** or **Shift** key.) **Note:** If the domain has its anonymous enumeration of SAM accounts security policy set to "disabled", the web interface will ask for a user name and password so it can retrieve the group or user list. The name and password is not saved on the PSA, so subsequent requests for browse lists will ask for the name and password again.
Select Access Type	Lists possible access rights that can be assigned to users and/or groups. Highlight the desired access level and it will be applied to any accounts added when clicking  . Valid access types 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 print shares, and change security settings (using native NT tools)) • **No Access** (the user will be denied access even if permitted access under another entry) • **Special Access** (for some Windows 2000 and XP permissions that do not map directly to the above four permission levels)
Current Accounts in List	Lists all groups and/or users with their access rights.



Printer Driver Management

Links within this page:

- Driver Name Mismatch
- Security Warning When Adding New Drivers

Links to related pages:

- System Messages for Driver Management

Printer drivers are factory-installed, or they might already be loaded from a previously-added printer. All printer drivers added to the PSA are displayed on the **Driver Management** page. Drivers can also be initialized or deleted on this page.

Note: Client-side rendering (CSR) drivers and Windows 2000 drivers can be initialized, enabled, and disabled separately. However, these drivers are installed and deleted at the same time.

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. As a result, any of the following can occur.

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

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

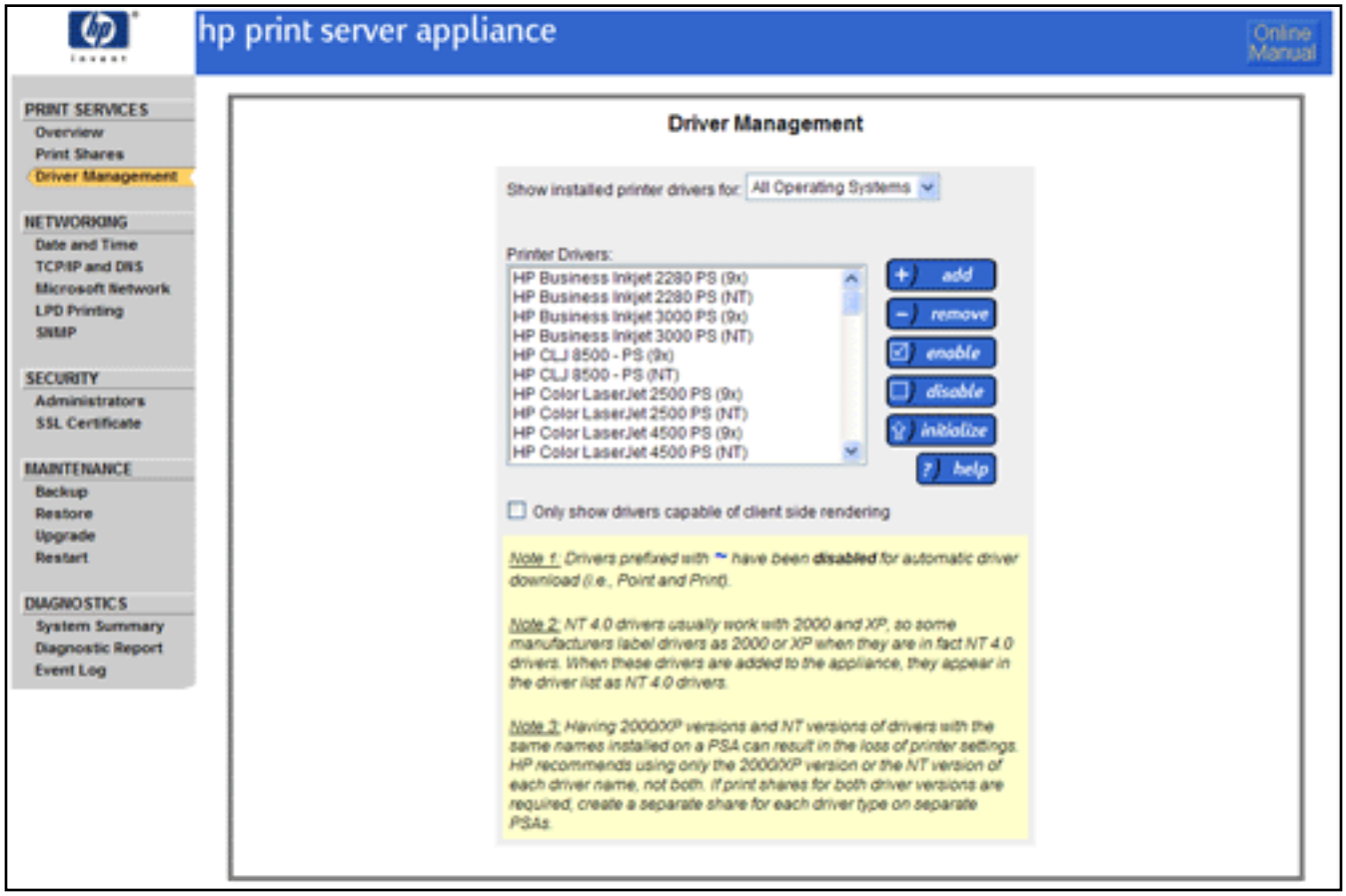
Note: Having Windows 2000/XP versions and NT versions of drivers with the same names installed on a PSA can result in the loss of printer settings and functionality (e.g., inability to print in landscape mode or loss of watermarks). To eliminate this risk of lost printer functionality, HP recommends two workarounds:

1. Install and distribute only NT printer drivers on the PSA for all of the NT, 2K, and XP clients; or
2. If print shares for both driver versions are required, create a separate share for each driver type on separate PSAs. This only affects NT and 2K/XP printer drivers and not 9X drivers. 9X drivers can still be installed along with NT or 2000/XP drivers.

For more information, please refer to the white papers on client migration from NT to 2K/XP clients (http://www.hp.com/go/psa_whitepapers).

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 PSA.
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 is displayed in blue and preceded with a "~" (tilde), that driver has been disabled either by the user (to prevent it from being used) or by 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.) When a client connects to a print share with a disabled driver, it receives the name of the driver to install and a prompt requesting that the driver be installed. If the administrator enables the driver, it will be available to clients through point and print if the client connects to a print share associated with that driver. To enable a driver: • If the driver was disabled by the user, click  . 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 administrator cannot enable this driver until it is successfully initialized. (A failure might be attributed to file corruption.) To initialize the driver, first try installing the printer again. When asked for a printer driver, consider using a different source for the printer driver in case the original file was corrupted. If a driver is disabled by the system, it must be installed again for it to be enabled (use the Add Driver wizard to install the driver 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 PSA. **Note:** Having Windows 2000/XP versions and NT versions of drivers with the same names installed on a PSA can result in the loss of printer settings and functionality (e.g., inability to print in landscape mode or loss of watermarks). To eliminate this risk of lost printer functionality, HP recommends two workarounds: 1. Install and distribute only NT printer drivers on the PSA for all of the NT, 2K, and XP clients; or 2. If print shares for both driver versions are required, create a separate share for each driver type on separate PSAs. This only affects NT and 2K/XP printer drivers and not 9X drivers. 9X drivers can still be installed along with NT or 2000/XP drivers. For more information, please refer to the white papers on client migration from NT to 2K/XP clients (http://www.hp.com/go/psa_whitepapers). To initialize or reset drivers that are already installed on the PSA, highlight the driver and click **Initialize.**
Client side rendering	Client side rendering (CSR) is a process built into a new architecture of printer drivers for 2K and XP clients called Unidriver. If the printer driver you are installing is a Unidriver and you are having problems with any if the following advanced printing features then use the CSR version of the printer driver to see if it resolves your printing problems. • N-up (printing multiple pages in a reduced format on one page) • booklet style (format the print job into a printed booklet) • watermark (print a watermark on each page of the document) • ZoomSmart (scales a letter-sized/A4 document or poster to tabloid/A3, or vice versa) • back-to-front (prints the document in reverse order) • rotate 180 degrees (rotates the document layout but not the paper) To see client side rendering drivers, select this option. **Note:** Print queues using the CSR driver are not compatible with NT clients.



1. To access the **Driver Management** page, select **Driver Management** (in the web interface under **Print Services**).
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 **Printer Drivers** list box.
3. If desired, highlight the printer driver to delete, enable, initialize, or disable and click the corresponding button.

   Note: 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 **Add Printer Driver** wizard is displayed.

Adding New Drivers to the PSA, or Using the Add Driver Wizard

Links within this page:

Adding a New Printer Driver

Links to related pages:

System Messages for Driver Management

Printer drivers are factory-installed, or they might already be loaded from a previously-added printer. While these will cover many needs, other drivers may be required. This section discusses the procedure for adding drivers to the

PSA.

Note: After the PSA 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 PSA, click 

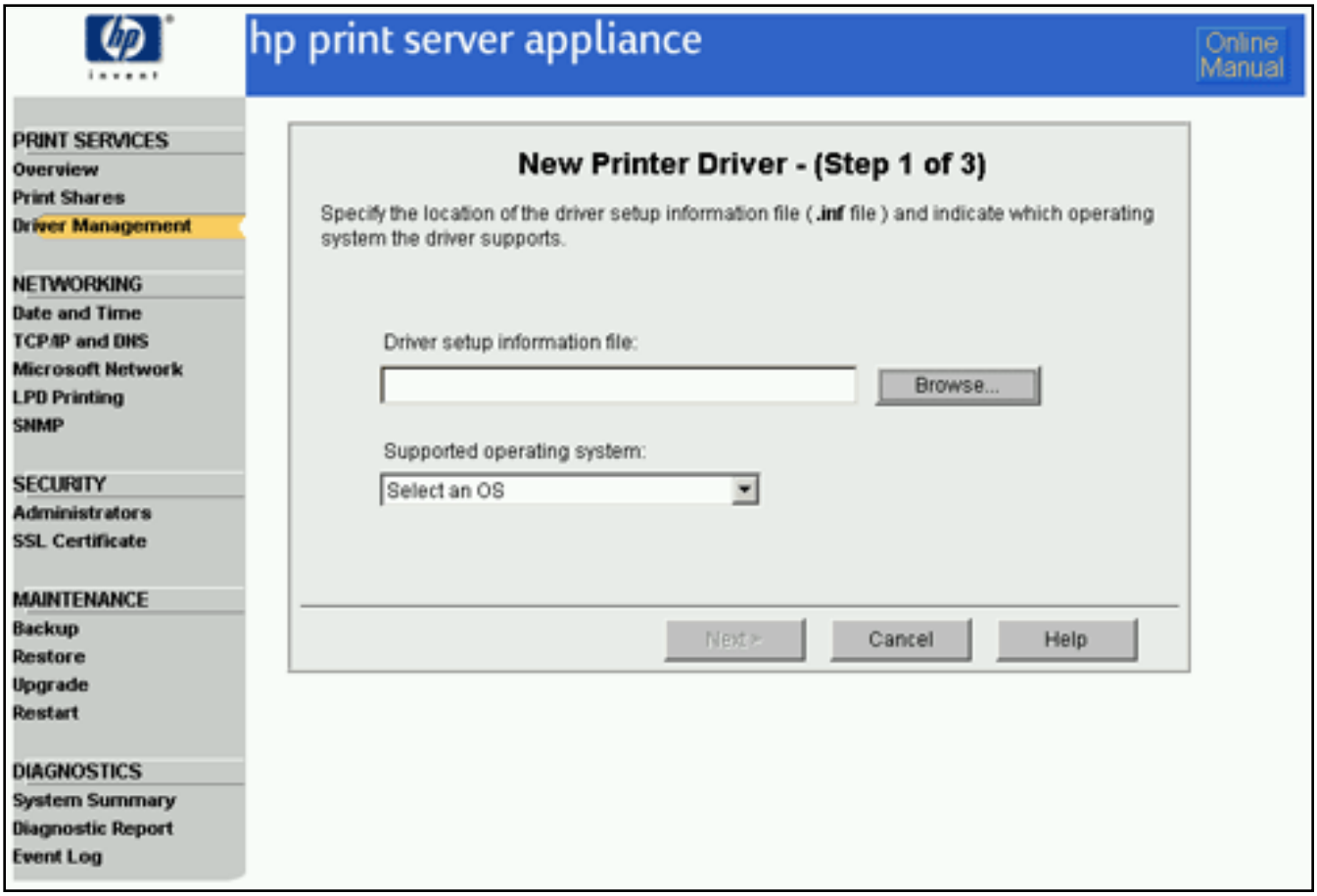
on the **Driver Management** page. The **New Printer Driver (Step 1 of 3)** page is displayed. This page can also be accessed by clicking 

on the **Add Print Share (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). If a Java virtual machine is not installed in the browser, refer to Sun Microsystem's web site or to Microsoft's web site for information about downloading one.

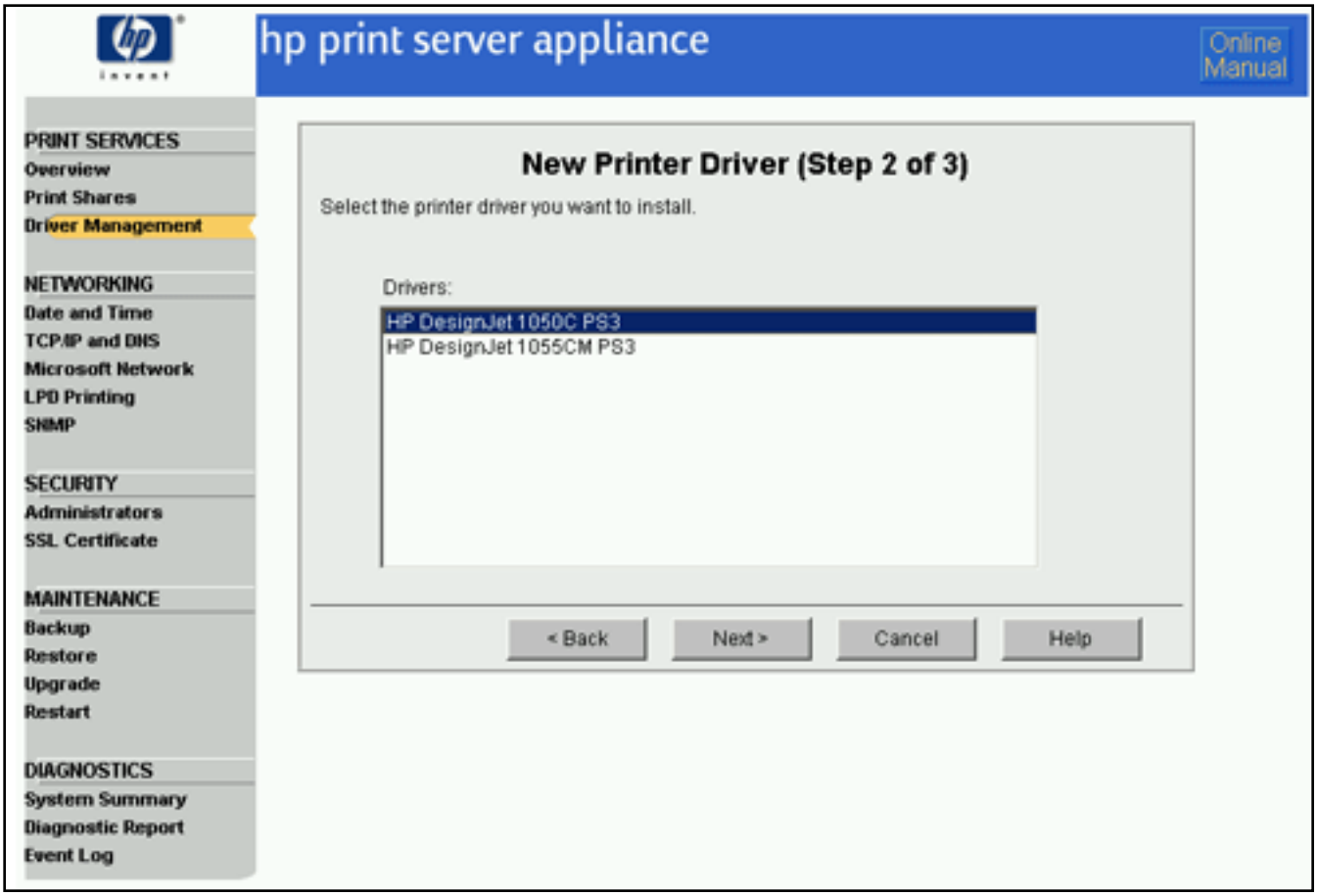
- **New Printer Driver (Step 1 of 3)**:

New Printer Driver (Step 1 of 3)	
Field Name	**Description**
Driver setup information file	Type the path for the printer driver, or click the **Browse** button. **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 newer than 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.



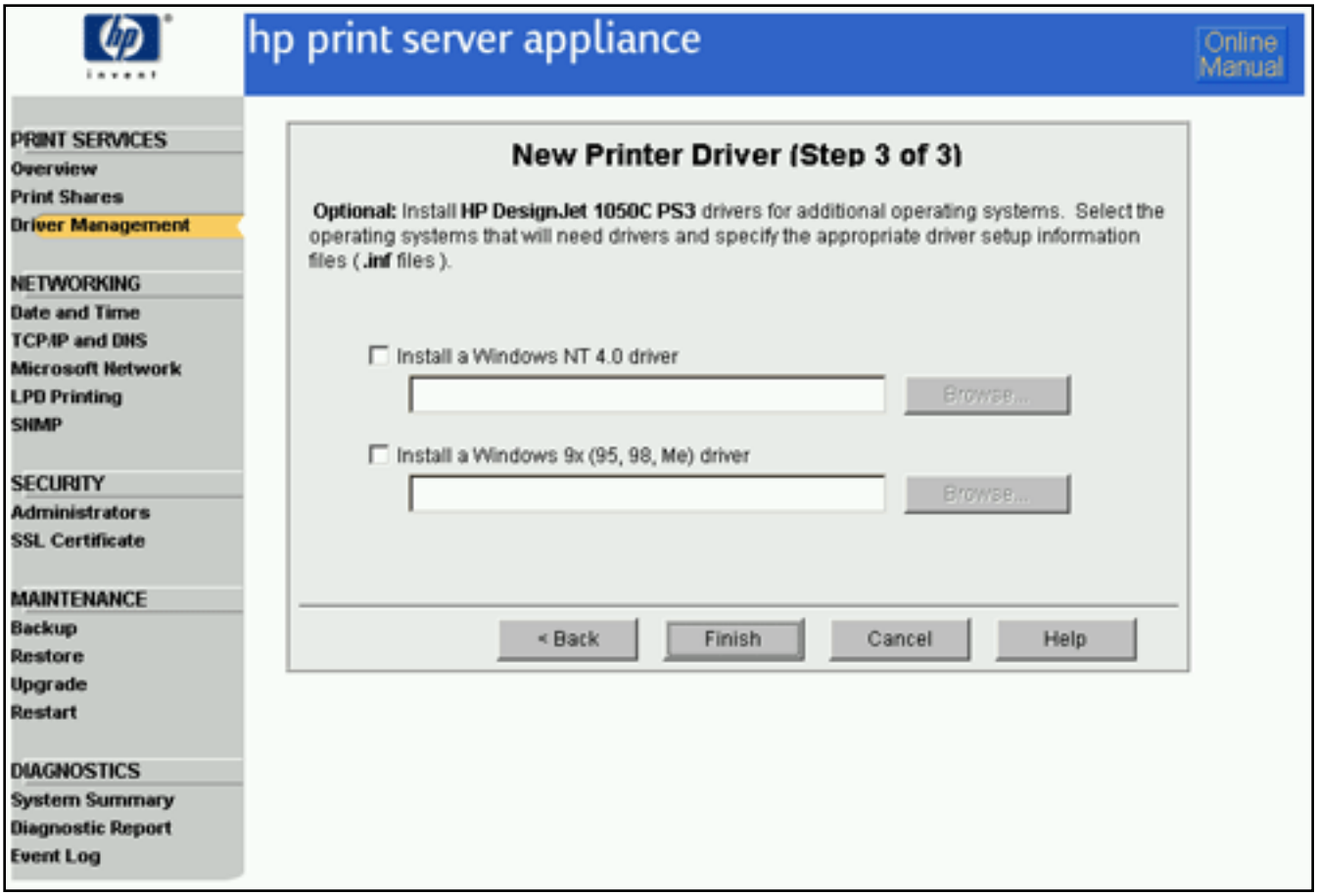
- **New Printer Driver page (Step 2 of 3):**

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):**

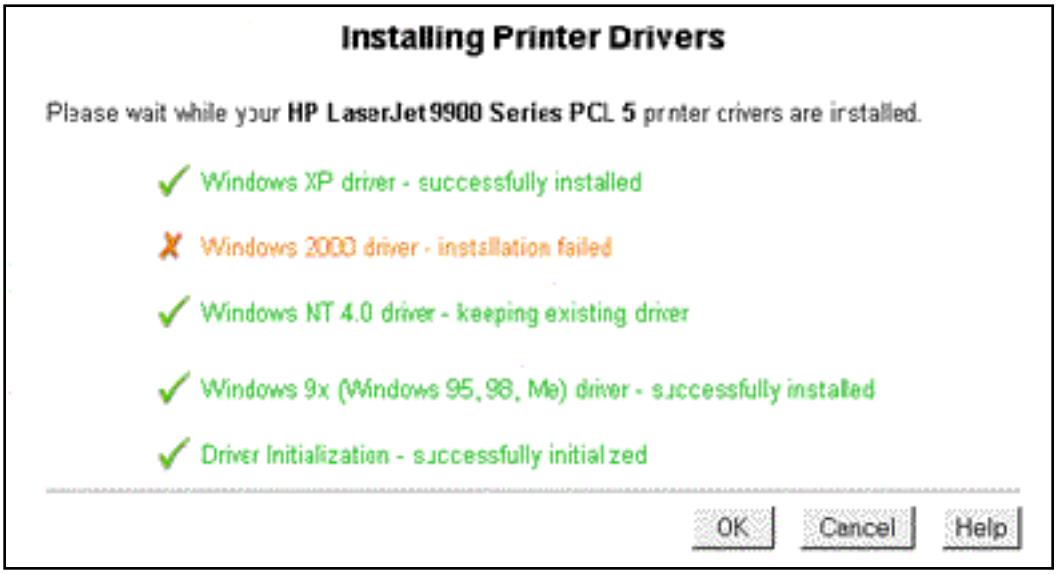
New Printer Driver (Step 3 of 3)	
Field Name	**Description**
Install a driver	Select additional printer drivers to install. Additional printer drivers can be installed for the client OS or any previous version of the OS. For example, if the client OS is XP, drivers for 2K, NT, or 9x can be installed. If the client OS is NT, only drivers for NT and 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 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. If a driver has two versions being added (one for client side rendering), then these messages will appear twice. The final status indicates the status of the driver for the client OS. If the driver you are installing is a Unidriver, you will see the file copy screen appear twice and initialize screen appear only once; this is normal operation. 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 installing drivers for multiple operating systems, it is possible that the driver names do not match. Several scenarios and suggestions are possible:

Scenario	Resolution
Windows 2000 and XP drivers will not have the same name as a Windows NT driver	Add the same printer to the PSA twice: once with the Windows NT driver. Then add the printer again (with a different name) with a Windows 2000 or XP driver.
Windows 2000 and XP or NT drivers does not have the same name as a Windows 9x driver	The PSA displays the **Driver Name Mismatch** dialog; you will then be able to install the Windows 9x driver using the Windows 2000/XP or the NT as the display name. This will allow the 9x drivers to become point-and-print capable.

Note: Having Windows 2000/XP versions and NT versions of drivers with the same names installed on a PSA can result in the loss of printer settings and functionality (e.g., inability to print in landscape mode or loss of watermarks). To eliminate this risk of lost printer functionality, HP recommends two workarounds:

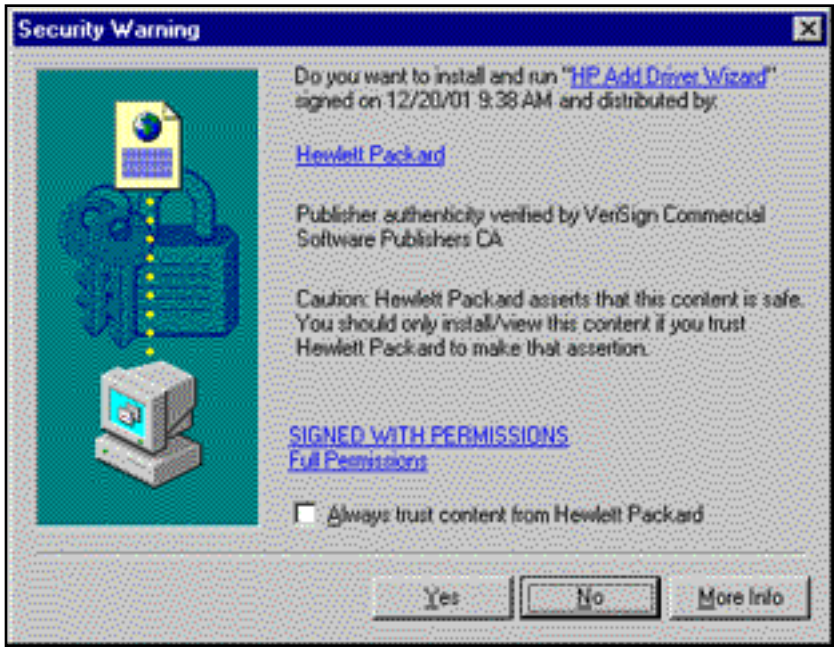
1. Install and distribute only NT printer drivers on the PSA for all of the NT, 2K, and XP clients; or
2. If print shares for both driver versions are required, create a separate share for each driver type on separate PSAs. This only affects NT and 2K/XP printer drivers and not 9X drivers. 9X drivers can still be installed along with NT or 2000/XP drivers.

For more information, please refer to the white papers on client migration from NT to 2K/XP clients (http://www.hp.com/go/psa_whitepapers).

Security Warning When Adding New Drivers

In order to add new printer drivers to the PSA, either through the **Add Print Share** 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 PSA. If you choose not to accept this security warning, you will not be able to add printer drivers.


Security Warning
Do you want to install and run "HP Add Driver Wizard" signed on 12/20/01 9:38 AM and distributed by:
Hewlett Packard
Publisher authenticity verified by VeriSign Commercial Software Publishers CA
Caution: Hewlett Packard asserts that this content is safe. You should only install/view this content if you trust Hewlett Packard to make that assertion.
SIGNED WITH PERMISSIONS
Full Permissions
Always trust content from Hewlett Packard
Yes
No
More Info

Configuring the Administrator Account

Links within this page:

Links to related pages:

- Related System Messages
- Troubleshooting the PSA

Administrator Accounts

Use the **Administrators** page to change passwords or add account names for local and domain administrator accounts. There can be multiple administrator accounts for the PSA, but all accounts have the same privileges. There must always be at least one local administrator account on the PSA.

Note: The administrator account names and passwords are not related to the front panel password of the PSA, which is set and changed through the front panel.

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

To access the **Administrators** page, follow these steps:

1. Log on to the web interface. (The default is "admin" for the user name and "admin" for the password.)
2. On the menu under **Security**, click **Administrators**. The **Administrators** page is displayed:

Administrators Page	
Page Field Names	**Description**
Local Administrators	Lists all local administrator accounts added to the PSA. Local accounts are stored on the PSA and are independent from domain accounts.
Domain Administrators	Lists all domain administrator accounts added to the PSA.

Local Administrator Accounts

There must always be at least one local administrator account on the PSA. When an administrator accesses the PSA using a local account, an administrator name and password must be supplied for the PSA. (This user name and password are passed over the network in cleartext; HP recommends accessing the PSA over SSL (HTTPS) to protect the confidentiality of information like passwords.) Local administrator accounts can be added, deleted, or their passwords can be changed through the **Administrators** page.

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

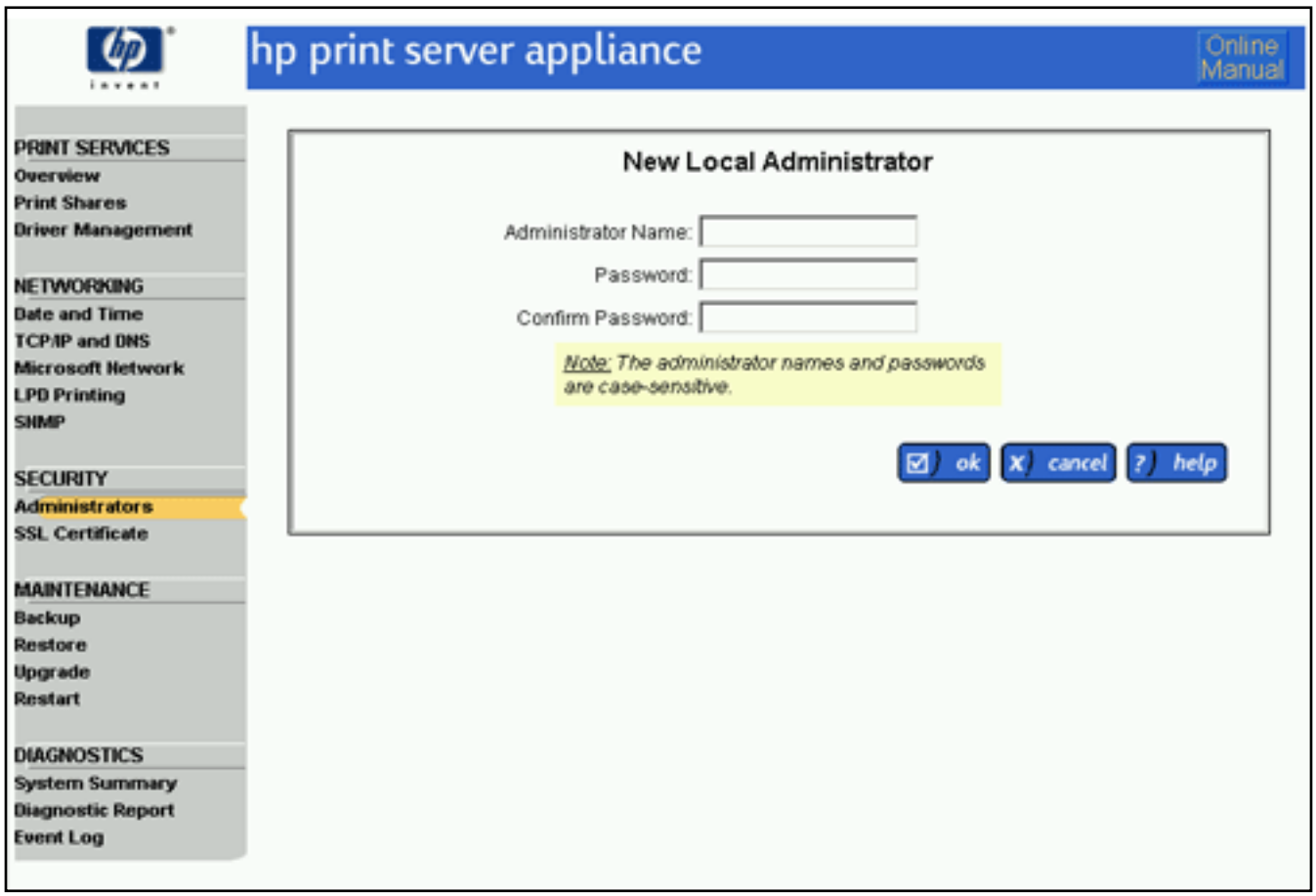
Adding a Local Administrator Account

New Local Administrator	
Page Field Names	**Description**
Administrator Name	Type the new administrator name (must be unique for the PSA). The administrator name is case-sensitive and can contain up to 20 alphanumeric characters and/or the following special characters: ~ ` ! @ $ % ^ ( ) - _ { } .

Password	Type the password. The password is case-sensitive and can contain up to 14 alphanumeric characters and/or the following special characters: ~ ` ! $ % ^ ( ) - _ { } . **Note:** The PSA will accept a null or blank password.
Confirm Password	Type the password again to confirm it (if there is a password). Then click ok to add this administrator to the PSA.

In addition to the default local administrator account, other administrator accounts can be to the PSA. To add an administrator account, follow these steps:

1. Log on to the web interface.
2. On the menu under **Security**, click **Administrators**. The **Administrators** page is displayed.
3. Click add under the list of local administrators. The **New Local Administrator** page is displayed.
4. Complete the fields as described below.
5. Click ok. The message "Administrator Account Added" is displayed.



Deleting a Local Administrator Account

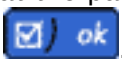
Administrator accounts can be deleted from the PSA, but there always must be at least one administrator account remaining on the PSA. Follow these steps to delete an administrator account:

1. Log on to the web interface.
2. On the menu under **Security**, click **Administrators**. The **Administrators** page is displayed.
3. Highlight the local administrator account to delete.
4. Click  to delete the administrator account. (If this is the only administrator account, it cannot be deleted.)

Changing the Password for an Existing Local Administrator Account

The password for an existing local administrator account can be changed through the the **Administrators** page. Follow these steps to change a password for an administrator account:

1. Log on to the web interface.
2. On the menu under **Security**, click **Administrators**. The **Administrators** page is displayed.
3. Highlight the local administrator account for which the password is changing.
4. Click 

. The **Local Administrator Password** page is displayed.
5. Type the new password in the **New Password** field.
6. Repeat the password in the **Confirm New Password** field.
7. Click 

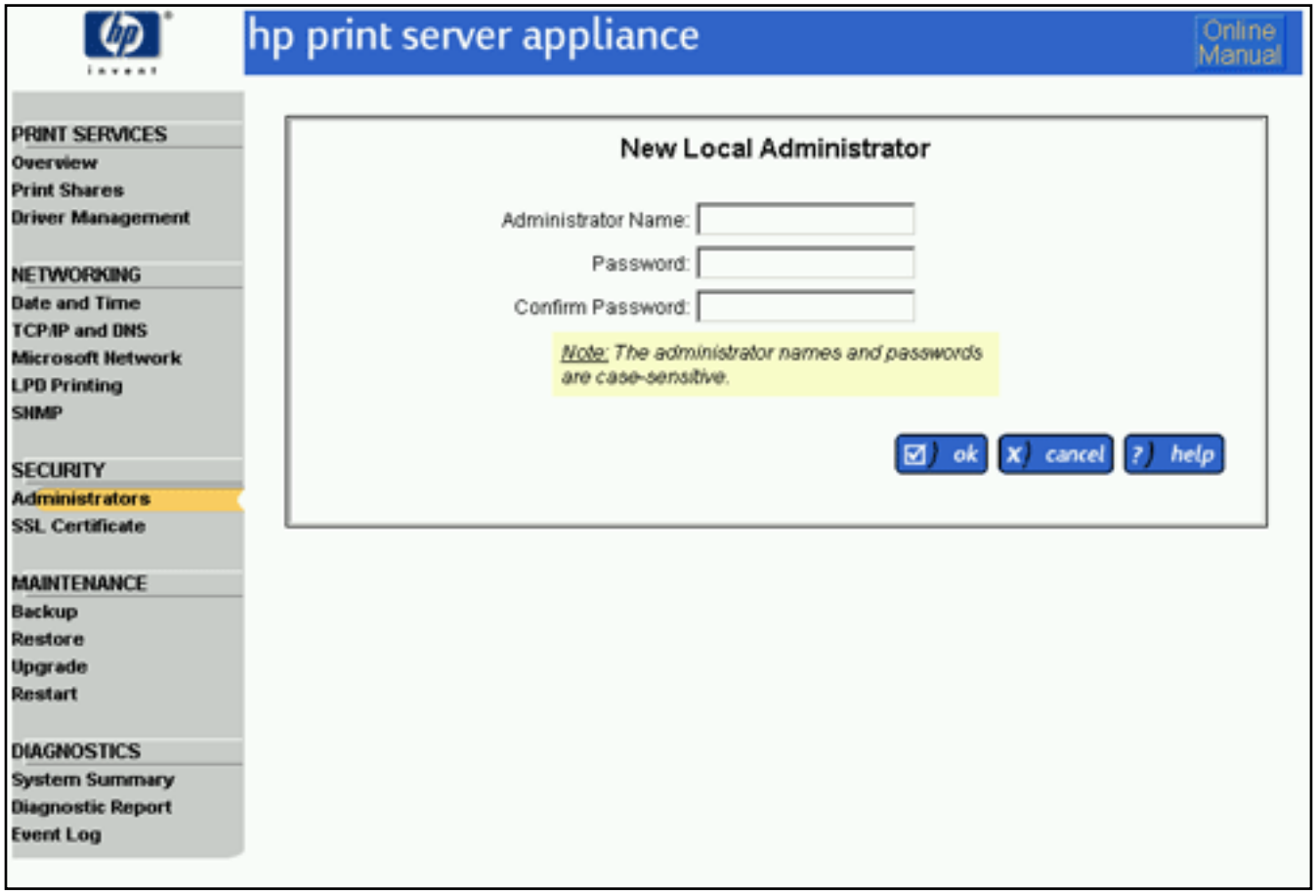
. The **Administrators** page will be displayed.

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 PSA, using the new administrator account name and password.

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

Local Administrator Password	
Page Field Names	**Description**
Administrator Name	Displays the administrator name.
Password	Type the password. The password is case-sensitive and can contain alphanumeric characters and the following special characters: ~ ` ! @ $ % ^ ( ) - _ { } . **Note:** The PSA will accept a null or blank password.

Confirm Password	Type the password again to confirm it (if there is a password). Then click ok to add this administrator to the PSA.



Domain Administrator Accounts

If Domain Authentication is enabled on the Microsoft Network Settings page, administrators can be identified by their Microsoft domain account. A list of domain user or group accounts can be configured in the PSA. This list is similar to the entries in the Administrators group of a Windows member server.

When administrators access the PSA, they can provide their domain identity (see Single Sign-On below). If the name provided matches an entry in the Domain Administrators list, or if they are a member of a domain group in the list, they will be allowed access to the PSA management interface.

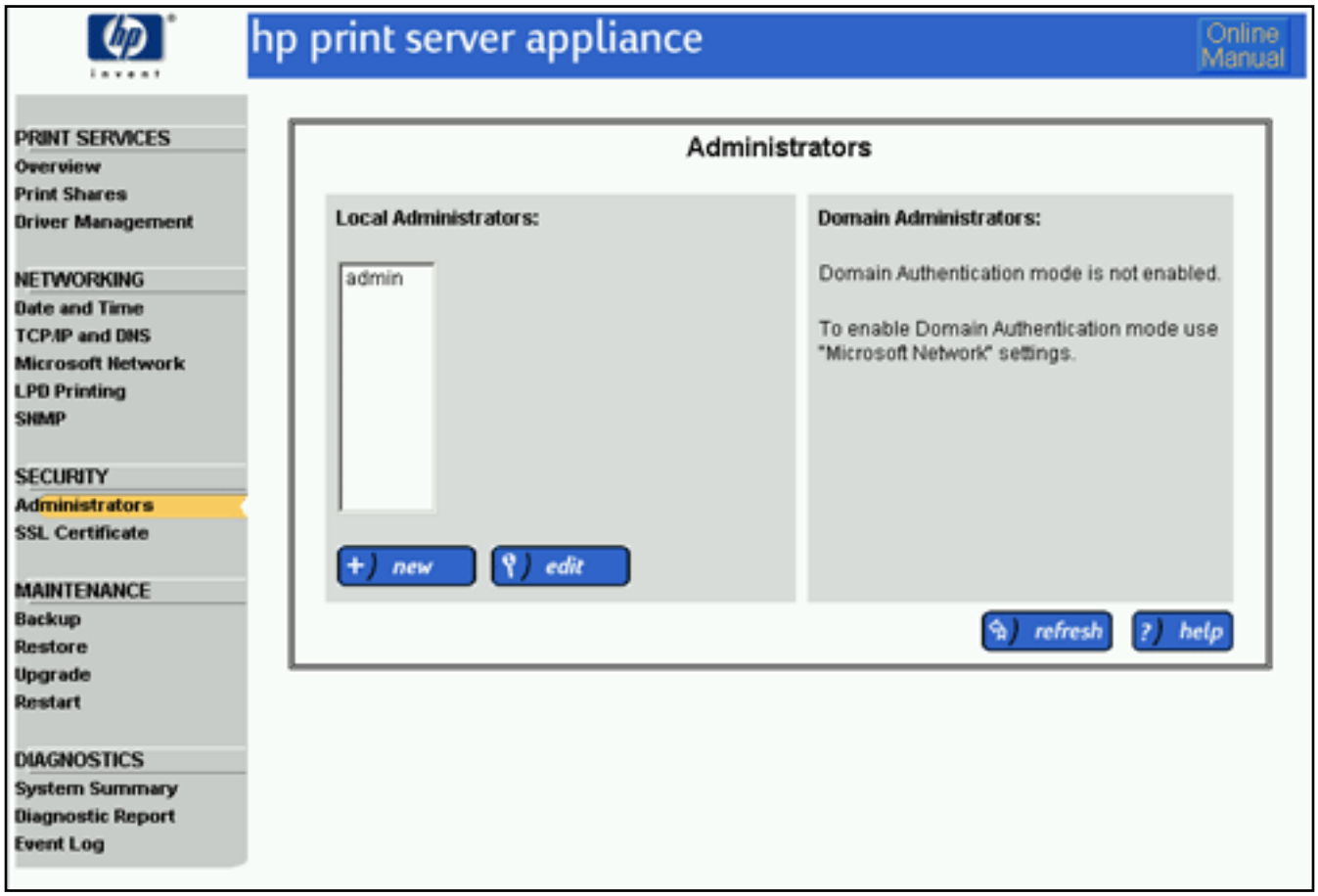
Note: When there is a Local Administrator account name that is the same as an account name in the Domain Administrators list, the PSA will first attempt to authenticate the domain account first (see Single Sign-On and Basic Authentication below). If the password given does not match the domain account, the PSA will perform Basic Authentication with the local administrator account.

Adding a Domain Administrator Account

To add a domain administrator account, follow these steps:

1. Log on to the web interface.
2. On the menu under **Security**, click **Administrators**. The **Administrators** page is displayed.
3. Click add under the list of domain administrators. The **Administrator-Add Domain Accounts** page is displayed.
4. Complete the fields as described below.
5. Click ok. The message "Administrator Account Added" is displayed.

Admin Accounts - Domain Accounts Page	
Field Name	**Description**
Type Account Name	Type the account name for the domain in the format Domain \Accountname.
Select Account(s) from	The drop-down list contains names of the primary domain and all trusted domains.
Domain Members	Shows all of the members 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.)
Accounts to add as Administrators	Lists all groups and/or users with administrator rights for the PSA.



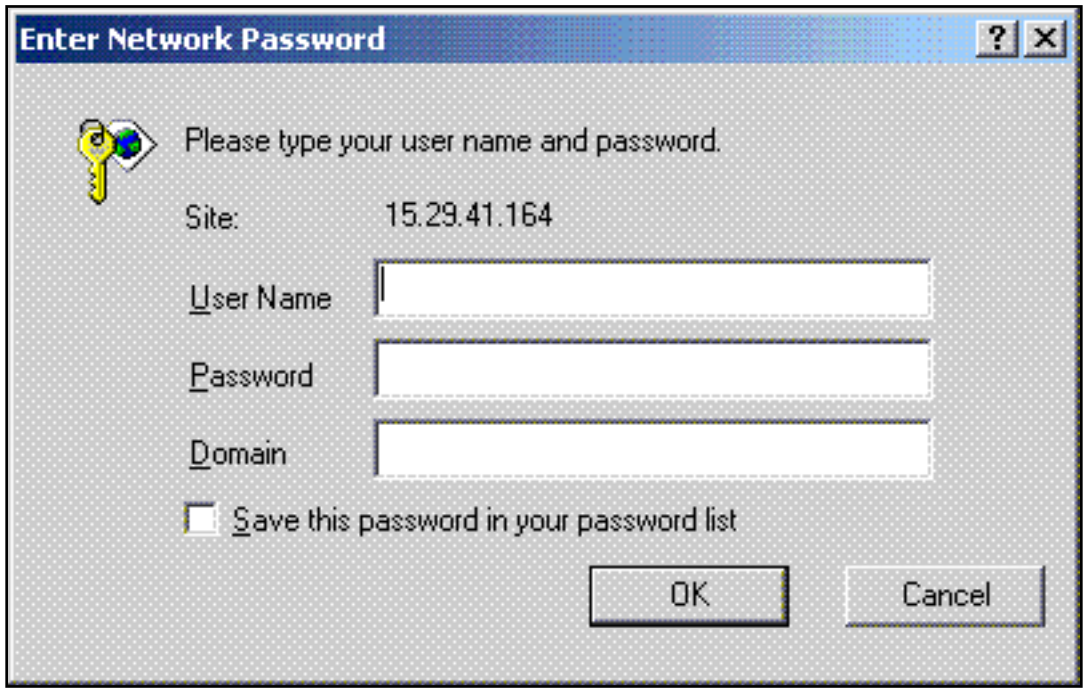
Note: If the Domain Controller is not available, administrators can use their local account.

When browsing for domain accounts from the **Select Account(s) from** list of domains, the PSA may ask for a user name and password. The reason is the domain's security policy requires a trusted user account to connect to the domain controller to retrieve the account list. A machine account (i.e. the PSA's) is not sufficient when the domain is configured to protect enumeration of users and groups account information.

Single Sign-On (SSO)

Single Sign-On allows an administrator, using Internet Explorer, to access the PSA without prompting for an account name and password. The PSA will request the browser to provide credentials given when the administrator logged into the Windows workstation. The following scenarios could occur:

1. When an administrator is using Internet Explorer and the URL specified for the PSA is within the browser's local intranet zone, the browser will automatically send the credentials used to log into the Windows workstation.
    - If the credentials are successfully authenticated with a domain controller and the administrators are also authorized to access the PSA's web interface, then the requested page will be served to the browser. Administrators are authorized if their domain account is listed in the PSA Domain Administrators list.
    - If the credentials are not authenticated with a domain controller or the administrator's account is not authorized to access the PSA, the PSA will prompt for another account name and password (see Basic Authentication).
2. If the PSA administrator is using Internet Explorer but the URL used to access the PSA is not within the local intranet, then the administrator will be prompted for account name and password. 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 PSA (the screen shown is for Microsoft Windows NT 4.x; this screen might vary depending on your operating system).



   After the name, password, and domain or entered the process is as (1) above.
3. If the administrator is not using Internet Explorer the browser will use the 'Basic Authentication' protocol.

Basic Authentication

If an administrator uses a browser other than Internet Explorer, SSO will not be supported; the browser will communicate with the PSA through Basic security and all security information will be passed to the PSA 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 user name and password, or specify a domain user name and password where the user name includes the domain name (for example, domainname\user name). In the latter case, a user with a domain administrator account on the PSA can access the web interface through a Basic security prompt without having a local administrator account. (However, this user name 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.)

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; type the IP address under Tools-->Options-->Connections-->Proxy Server-->Advanced-->Exceptions. Also, under Security-->Sites, select **Include all sites that bypass the proxy server**.

SSL

Links within this page:

Links to related pages:

- Related System Messages
- Troubleshooting the PSA

SSL Certificates

SSL/TLS secures the PSA's web interface by providing data privacy, data integrity, and server authentication. SSL/TLS (Secure Sockets Layer (SSL v2/v3) and Transport Layer Security (TLS v1)) is based upon the exchange of certificates that are used to validate a public key. These public keys are then used to generate a shared secret key that is used for encryption and decryption. Encrypting the data before it is sent out over the network and decrypting the data when it has been retrieved from the network provides data privacy.

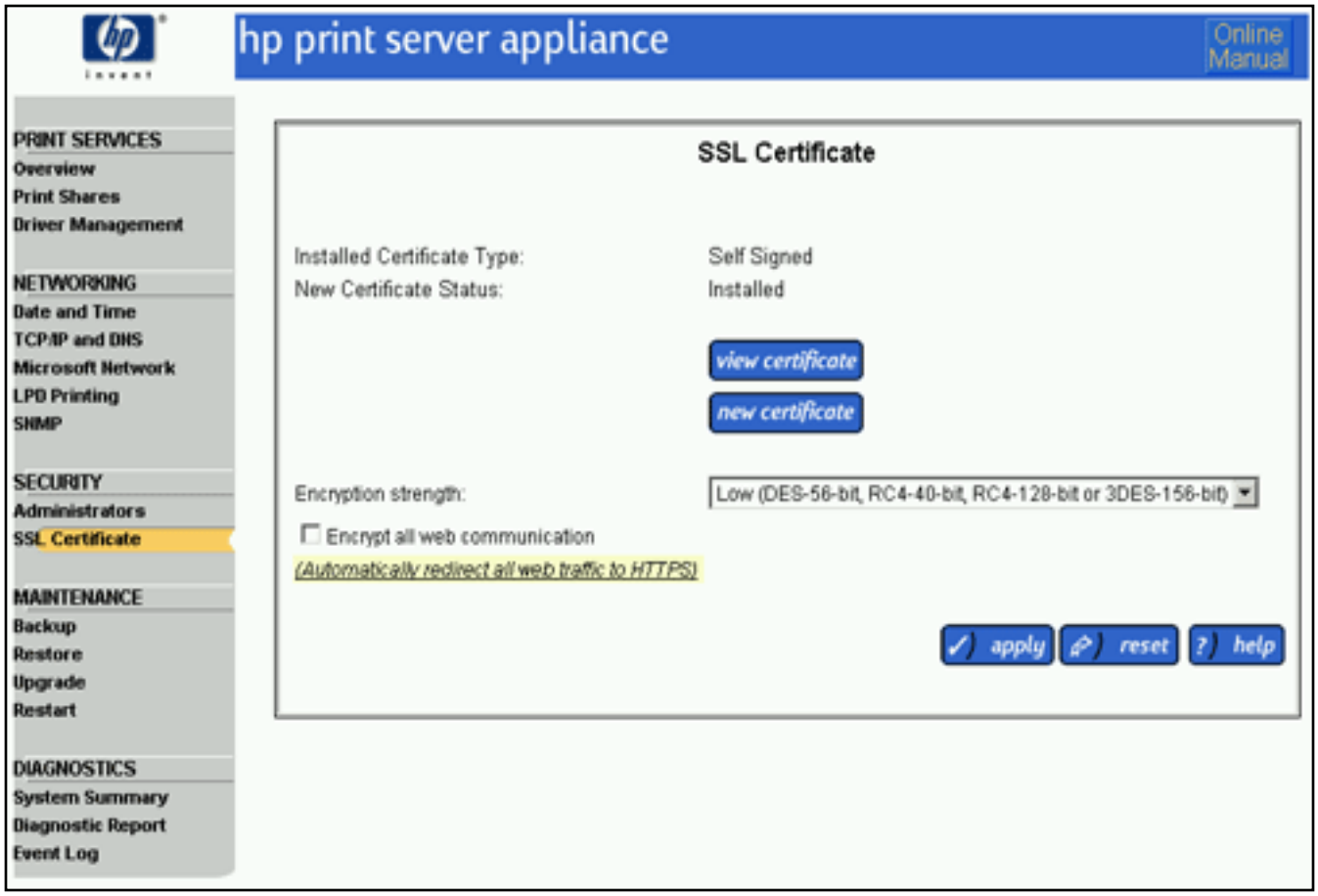
SSL/TLS is always enabled on the PSA. By default, a certificate is automatically created and installed on the PSA. To create a newer certificate on the PSA, the administrator must provide data to create a key pair and certificate. The PSA's web interface always listens on the secure data channel (Port 443, HTTPS) and on the unsecure data channel (Port 80). All transactions between the web browser and the PSA's web interface requiring security take place on this secure port.

SSL Certificate Page

The **SSL Certificate** page is displayed when **SSL Certificate** is selected (on the menu under **Security**).

SSL Certificate Page

Field Names	Description
Installed Certificate Type	Type of certificate installed (self-signed or CA signed).
New Certificate Status	Status of the certificate (installed or pending).
Encryption strength	Low, Medium, or High.
Encrypt all web communication	Select this to redirect all communication through a secure port (HTTPS).



To view the certificate, click 

on the **SSL Certificate** page.

To change the encryption strength or to encrypt web communication, follow these steps:

1. At a workstation, access the web browser and type the IP address for the PSA.
2. Log on to the PSA as an administrator. (The default user name is "admin" and the default password is "admin".)

3. Under **Security** on the menu, select **SSL Certificate**. (See the description of the fields above for more information.)
4. Click on the **Encryption strength** drop-down list and select the cipher value for the certificate (**Low** (default), **Medium**, or **High**).
5. To redirect all communication through a secure port (HTTPS), check **Encrypt all web communication**.
6. Click 

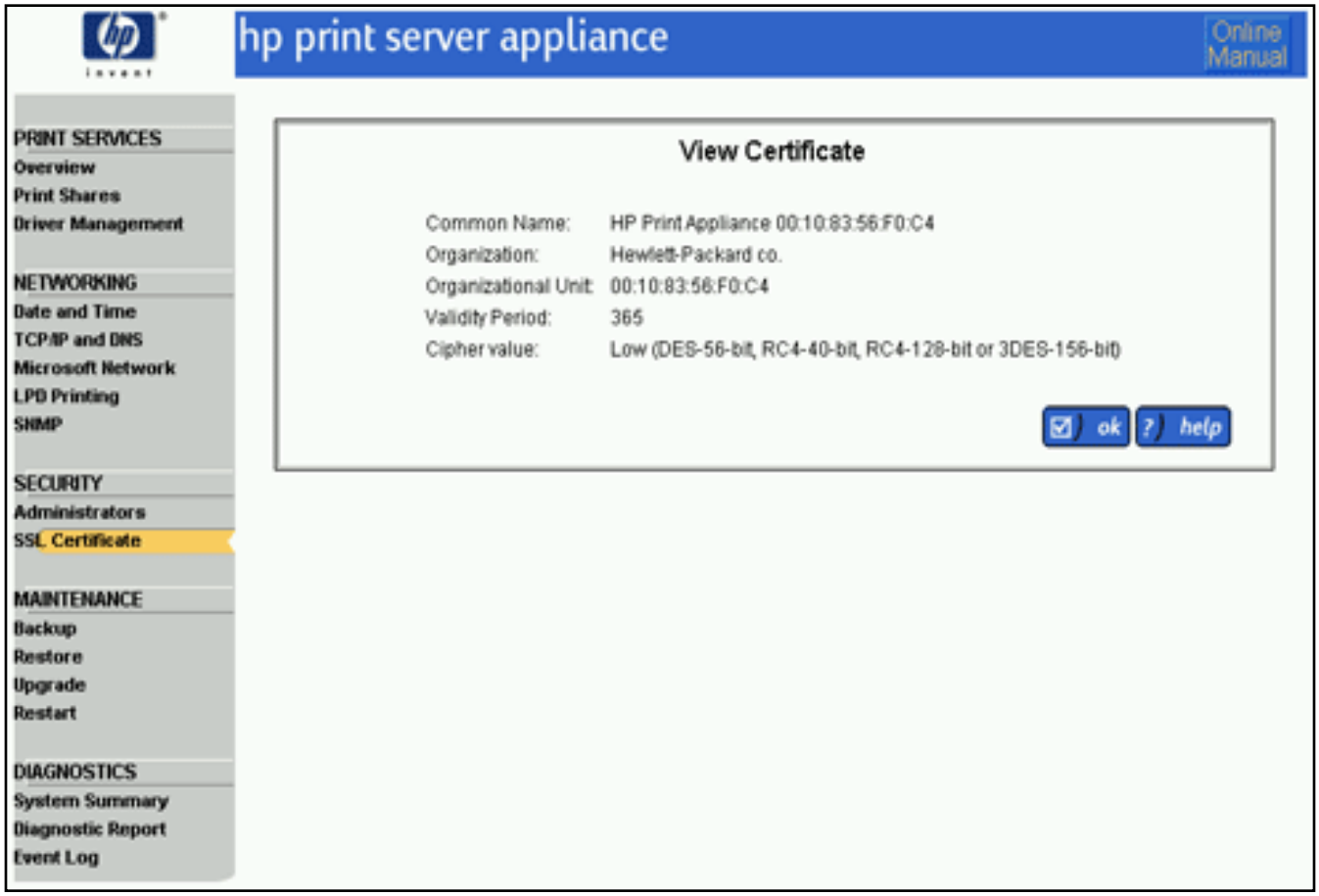
.

Viewing the SSL Certificate

The **View Certificate** page is displayed after 

is clicked on the **SSL Certificate** page.

View Certificate Page	
Field Names	**Description**
Common Name	Fully qualified domain name or IP Address of the PSA. Used to identify the device HPX595. rose.hp.com.
Organization	Full legal name of your company.
Organizational Unit	Specific department or division within your organization.
Validity Period	Length of time (in days) for validity of the certificate.
Cipher Value	Cipher value of the certificate (low, medium, or high).
Locality (City)	City in which your organization is physically located.
State / Province	State or province (up to 68 characters).
Country / Region	Two-character ISO country code.

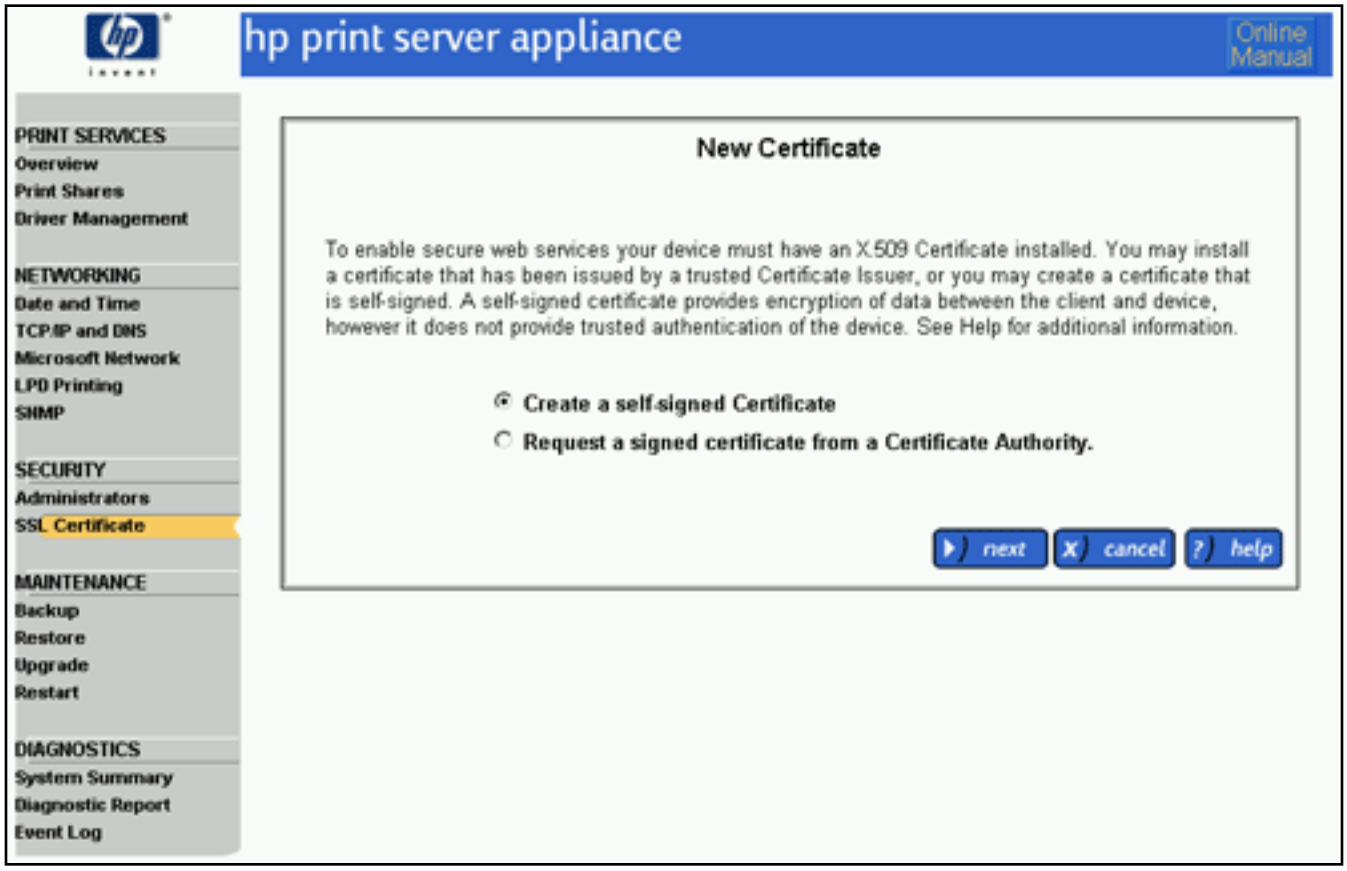


Requesting a New Certificate

The **New Certificate** page is displayed after 

is clicked on the **SSL Certificate** page. There are two options for a new certificate:

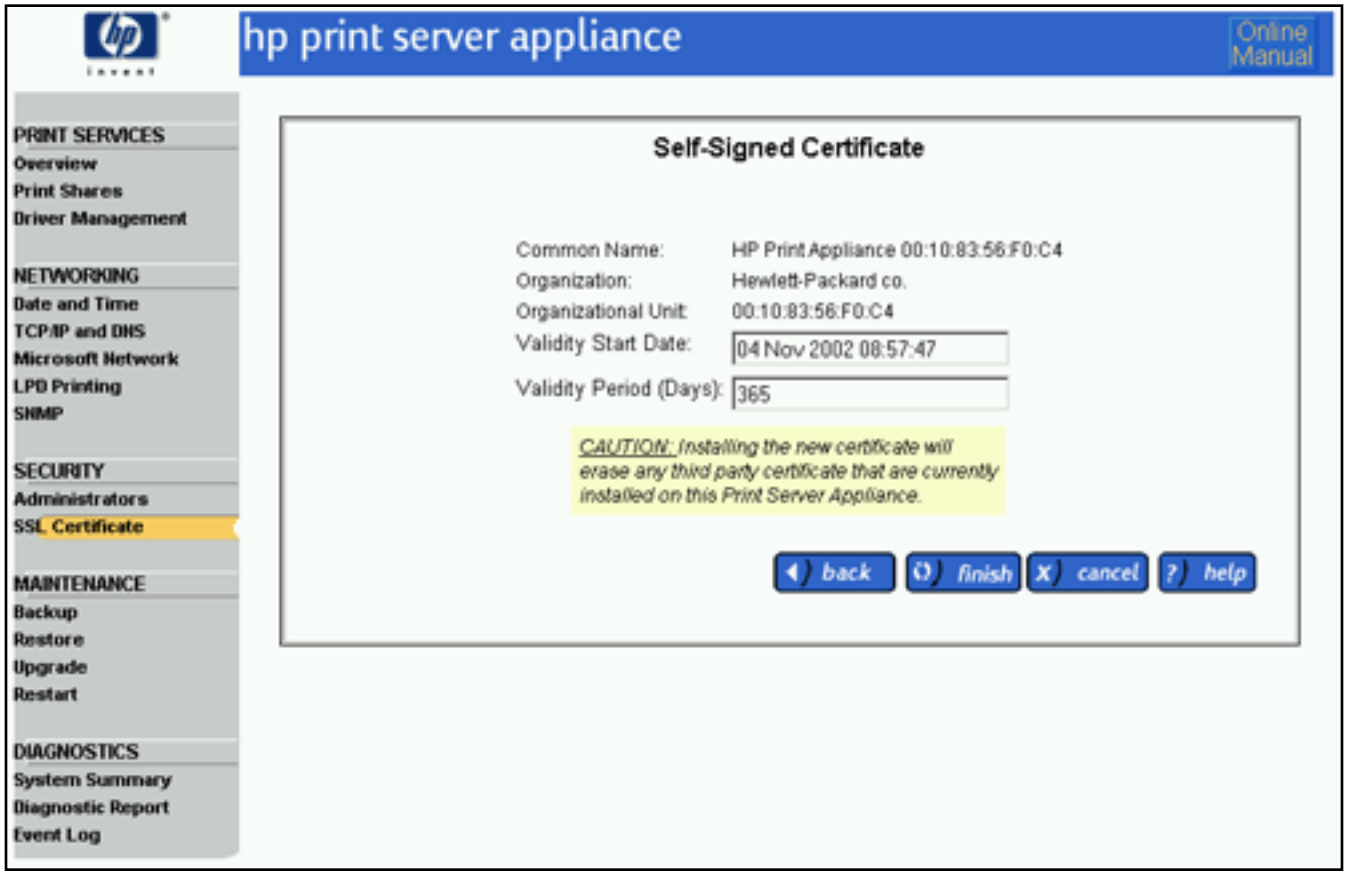
- **Create a self-signed Certificate**.
- **Request a signed certificate from a Certificate Authority**.



Creating a Self-Signed Certificate

To create a new self-signed certificate, select the radio button for this option on the **New Certificate** page and click next. The **Self-Signed Certificate** page is displayed.

Self-Signed Certificate Page	
Field Names	**Description**
Common Name	Fully qualified domain name or IP Address of the PSA. Used to identify the device HPX595. rose.hp.com.
Organization	Full legal name of your company.
Organizational Unit	Specific department or division within your organization.
Validity Start Date	The start date for the validity of the certificate.
Validity Period (Days)	Validity period for the certificate, in days. (The default is 365 days.)



To create a new self-signed certificate, follow these steps:

1. At a workstation, access the web browser and type the IP address for the PSA.
2. Log on to the PSA as an administrator. (The default user name is "admin" and the default password is "admin".)
3. Under **Security** on the menu, select **SSL Certificate**. (See the description of the fields above for more information.)
4. Click new certificate.
5. Select the radio button for a self-signed certificate and click next.
6. Complete the validity start date for the certificate.
7. Complete the validity period for the certificate.
8. Click apply.

Requesting a Signed Certificate from a Certificate Authority

To request a signed certificate from a Certificate Authority, select the radio button for this option on the **New Certificate** page and click next. The **Request Signed Certificate** page is displayed.

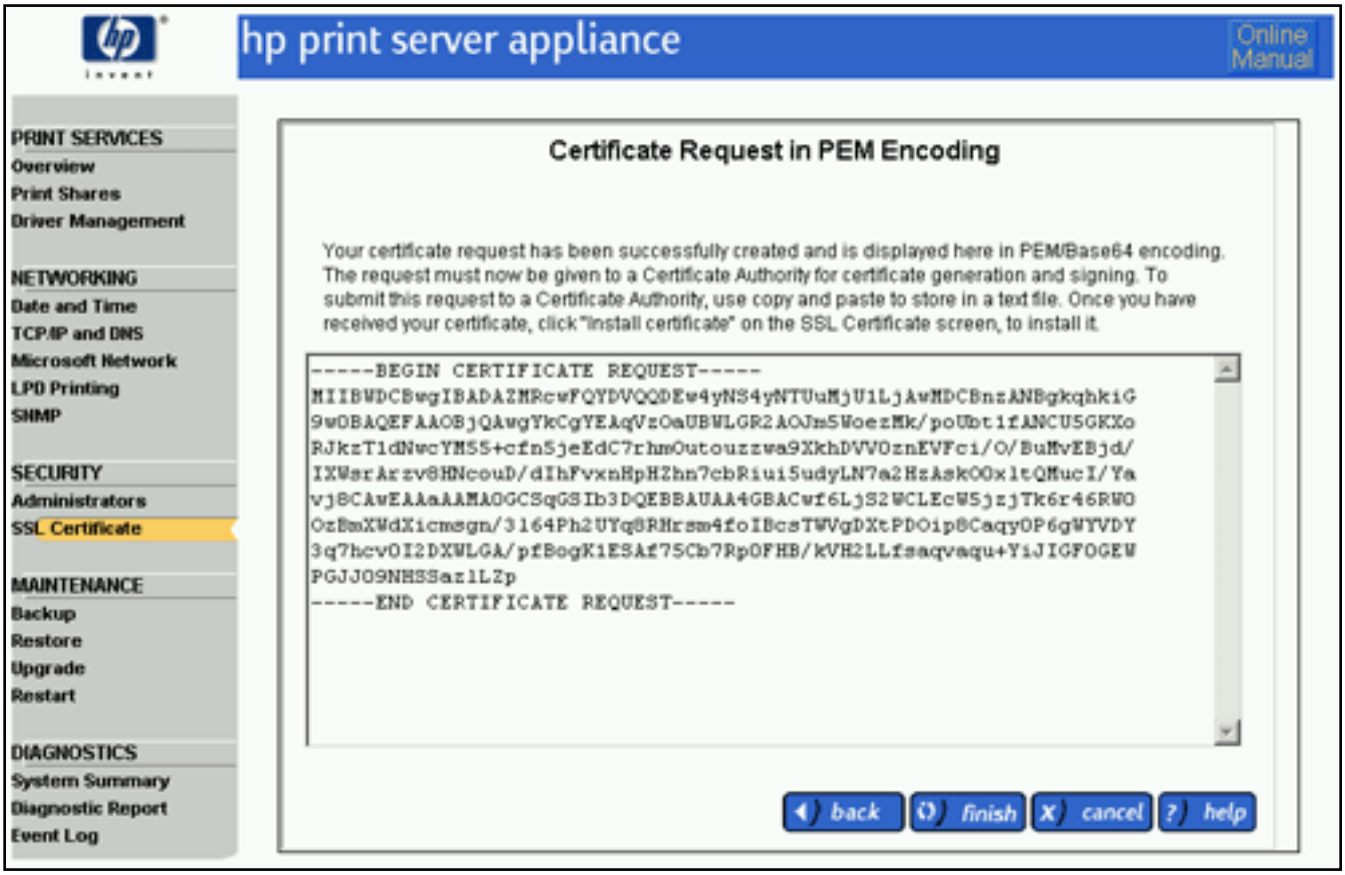
Request Signed Certificate Page	
Field Names	**Description**

Common Name	Fully qualified domain name or IP Address of the PSA. Used to identify the device HPX595. rose.hp.com.
Organization	Full legal name of your company.
Organizational Unit	Specific department or division within your organization.
Locality (City)	City in which your organization is physically located.
State / Province	State or province (up to 68 characters).
Country / Region	Two-character ISO country code.

To request a signed certificate from a Certificate Authority, follow these steps:

1. At a workstation, access the web browser and type the IP address for the PSA.
2. Log on to the PSA as an administrator. (The default user name is "admin" and the default password is "admin".)
3. Under **Security** on the menu, select **SSL Certificate**. (See the description of the fields above for more information.)
4. Click new certificate.
5. Select the radio button for a certificate from a Certificate Authority and click next.

6. Complete the fields on the Request Signed Certificate page (as described above).
7. Click next. The **Certificate Request in PEM Encoding** page is displayed.

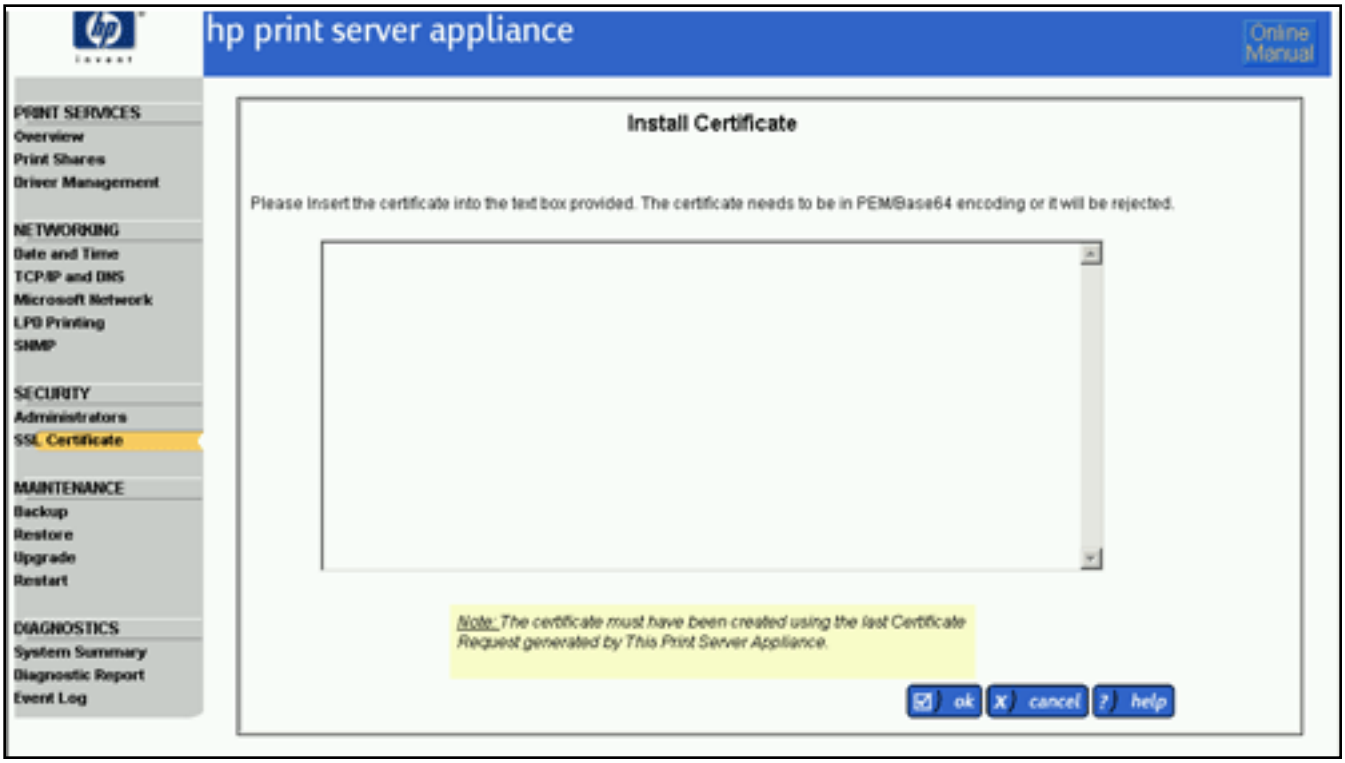


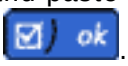
8. Follow the instructions on the page and click finish.

Installing a Certificate from a Certificate Authority

After the signed certificate has been received from the Certificate Authority, follow these steps to install it:

1. At a workstation, access the web browser and type the IP address for the PSA.
2. Log on to the PSA as an administrator. (The default user name is "admin" and the default password is "admin".)
3. Under **Security** on the menu, select **SSL Certificate**. (See the description of the fields above for more information.)
4. Click install certificate. The **Install Certificate** page is displayed.



5. Cut and paste the text from the signed certificate into the text box displayed.
6. Click 

. The web interface will restart and the new certificate will be valid.

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

Links within this page:

Links to related pages:

- Troubleshooting the PSA
- Related System Messages

Backing Up Network Settings and Printer Information

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

- administrator account user names and passwords
- network settings
- printer information
- printer drivers

Use the following procedure to save the configuration parameters:

1. On the menu under **Maintenance**, select **Backup**.
2. Click 

to begin the process. A **File Download** window appears.
3. At the next screen, click **Save This File to Disk** and then click 

. A **Save As** dialog box appears.
4. Choose a file name, drive, and directory to hold the saved configuration.
5. Click 

. The saved configuration is in binary format and cannot be edited using a text editor.

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

Note: If the PSA is joined to a domain, the domain password for the domain controller is included in the backup file. When that PSA backup file is restored, it might be necessary to join the PSA to that domain again because the password might have changed since the backup file was created.

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 PSA. This technique can also be used to replace a PSA. A copy of the configuration parameters is saved while the PSA's settings and files are being backed up.

Use the following procedure to restore backup settings:

1. On the menu under **Maintenance**, select **Restore**.
2. Select the settings to restore:
   - Administrator Accounts (restores all administrator accounts previously added and saved in the backup of the PSA)
   - PSA Network Settings (restores all PSA address and name information)
   - Printers and Printer Client Drivers: (restores all printer definitions and factory-installed drivers plus any added to the PSA for Microsoft's 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 

to begin the restore process.

   -or-

   Click 

to return to the **Restore** page without restoring the configurations.
5. The **Restore Configuration Successful** window appears. Click 

.

➔ System Messages for Restoring the Settings on the PSA

Resetting the PSA to Factory Defaults (Front Panel)

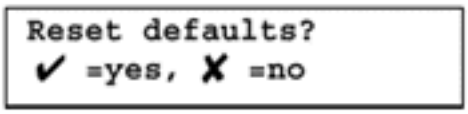
Once the PSA is configured, the configuration settings are retained in memory unless they are manually reset to factory defaults through the front panel of the PSA. This procedure will reset the PSA to its factory defaults. All configuration information will be lost, including network settings, queues,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

Note: If the PSA 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 PSA to turn it off.

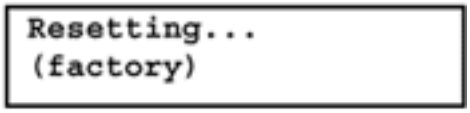
   CAUTION: To prevent possible file corruption on the PSA, do not simply disconnect the power cord.

3. Turn on the PSA again by pressing the **Power** button.
4. During the restart sequence, when the front panel display reads **Configuring**, press ▼. The following message is displayed:



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

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



System Messages for Restarting the PSA

Restarting (or Rebooting) the PSA

Use the **Restart** feature to reboot the PSA. Before restarting the PSA, read the following:

- The restart process will take from three to six minutes. During this time, the PSA 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 PSA will probably be lost and must be reprinted.
- Any print jobs currently spooled on the PSA will be retained.
- Any print jobs currently being de-spooled from the PSA to the printers may be restarted (automatically) once the PSA is ready to function.

Follow these steps to restart the PSA:

1. On the menu under **Maintenance**, click **Restart**.
2. Click 

to begin the reboot process.

Upgrading the Firmware on the PSA

Before installing an upgrade, save the current configuration of the PSA using the Backup feature. One firmware version 2.3.x (and not earlier versions) can be upgraded to firmware version 2.4.x.

CAUTION: This information should be automatically saved on the PSA, 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 2.4.x, printers that had been added to earlier firmware versions (2.3.x or before) need to be associated with their driver again. To do this easily, go to the **Print Shares** page and click

Drivers for that print share. In the drop-down list, select any other driver and click 

. Then, select the original driver and click 

again.

Use the following procedure to install an upgrade:

1. Download the firmware image (*.hp) from the 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 PSA's web interface and click **Upgrade** (on the menu under **Maintenance**).
3. On the **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 

to upload the upgrade file to the PSA.
5. After the upgrade has completed, the **Overview** page is displayed.

System Summary

Links to related pages:

- Troubleshooting the PSA

Viewing and Printing the System Summary Page From the Web Interface

This page explains how to view and print the PSA System Summary from the web interface. PSA settings are shown on the **System Summary** page. To access this page, select System Summary (in the web interface under **Diagnostics**). This page can be printed using the print function of the browser.

The **System Summary** page has the following sections:

- General Information on the System Summary Page
- TCP/IP Network Configuration Information
- Microsoft Network Configuration Information
- SNMP Configuration Information
- SNMP Traps Information
- Administrators Information
- SSL Configuration Information
- LPD Configuration Information
- Print Shares Information
- Installed Printer Drivers Information

To refresh this page, click 

.

General Information on the System Summary Page

Parameter	Description
Model Name	HP Print Server PSA 4250.
Model Number	Model number of the PSA.
Ethernet Address	Ethernet address of the PSA.

Current Firmware Revision	Current version of firmware running on this PSA.
Base (Factory) Firmware Revision	Version of firmware that the PSA would be rolled back to if it was reset to factory defaults.
Patches Applied	Lists any patches that have been applied to the PSA.
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 of the operating system.
Data Area Restored	Date and time of last restore of the data area.
Spool Area Restored	Date and time of last restore of the spool area.

TCP/IP Network Configuration Information

Parameter	Description
IP Configuration Mode	How this unit was configured (manual or DHCP).
Current IP Address	IP address of this PSA.
Current Subnet Mask	IP subnet mask of this PSA.
Default Gateway	Default gateway of this PSA.

Primary Domain Name Server (DNS) Address	IP address of the primary DNS server.
Secondary Domain Name Server (DNS) Address	IP address of the secondary DNS server.
DNS Domain Name	Name of the IP domain to which this PSA belongs.
Auto-negotiate	Network link mode (enabled or disabled), speed (10T or 100T), and duplex (full or half).

Microsoft Network Configuration Information

Parameter	Description
Print Server Appliance Name	Name of the PSA.
Windows Domain or Workgroup	Microsoft (R) domain or workgroup to which this PSA belongs.
Primary WINS Server Address	IP address of the primary WINS server.
Secondary WINS Server Address	IP address of the secondary WINS server.
Domain Authentication	Status of domain authentication (checked is enabled or "on").
Domain Controller Auto Discovery	Status of auto discovery (checked is enabled or "on").
Specified Domain Controllers	List of domain controllers.

SNMP Configuration Information

Parameter	Description
SNMPv1/v2	Enables and disables SNMPv1/v2.

SNMPv1/v2 Read and Write access	Allows SNMPv1/v2 read and write access.
SNMPv1/v2 Read-only access	Allows SNMPv1/v2 read-only access.
SNMPv3	Enables and disables SNMPv3 access.
SNMPv3 User Name	SNMPv3 account name.
SNMPv3 Authentication Key	Authentication Key for SNMPv3 account.
SNMPv3 Privacy Key	Privacy Key for SNMPv3 account.

SNMP Traps Information

Parameter	Description
IP Address	IP address of the trap recipient.
Community Name	Community Name that will be used in the traps packet (*not* the PSA's SNMP community name).
Port	Number of the port where the trap will be sent (typically 162).

Administrators

Parameter	Description
Local Administrators	Names of the local administrators.
DomainAdministrators	Names of the domain administrators.

SSL Configuration Information

Parameter	Description
Installed Certificate	Type of certificate installed (Self-Signed or CA signed).
New Certificate Status	Status of certificate (Installed or Pending).
Common Name	Fully qualified domain name or IP Address of the PSA. Used to identify the device HPX595.rose.hp.com.
Organization	Full legal name of your company.
Organizational Unit	Specific department or division within your organization.
Validity Period	Length of time (in days) for validity of the certificate.
Cipher Value	Cipher value of the certificate (Low, Medium, or High).
Locality (City)	City in which your organization is physically located.
State/Province	State or province (up to 68 characters).
Country	Two-character ISO country code.

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.

Print Shares 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 share will point and print, any printer properties (for example: **Paused**, **Print Banner**, or **Hide**), and any share description text.

  Note: The suffix "CSR" means that driver is capable of client side rendering. When the driver was added and initialized, CSR capability was requested to resolve issues with W2K drivers. Problems resolved with a CSR driver include:
  - N-up (printing multiple pages in a reduced format on one page)
  - booklet style (format the print job into a printed booklet)
  - watermark (print a watermark on each page of the document)
  - ZoomSmart (scales a letter-sized/A4 document or poster to tabloid/A3, or vice versa)
  - back-to-front (prints the document in reverse order)
  - rotate 180 degrees (rotates the document layout but not the paper)

- The second line lists the security rights for the printer (who can print and at what level of access).

Note: For Jetdirect internal cards or single-port external print servers, the **Remote Queue Name** will be **raw**. For Jetdirect 3-port external print servers, the **Remote Queue Name** will be **raw1**, **raw2**, or **raw3**.

Installed Printer Drivers Information

This section lists the printer drivers installed on this PSA.

Diagnostic Report

Links to related pages:

- Administrator Visible Logs
- System Summary
- Troubleshooting the PSA

Viewing and Printing the Diagnostic Report from the Web Interface

This page explains how to view and print the Diagnostic Report for the PSA from the web interface. To access this report, select Diagnostic Report (in the web interface under Diagnostics). This report can be printed using the print function of the browser.

The Diagnostic Report has the following sections:

- Diagnostic
- System
- DNS/WINS Servers
- Domain Controllers
- Printer Status
- Network Statistics

The Diagnostic Report is a background process that is automatically run every ten minutes, querying resources across the network (for example, DNS, WINS, domain controllers, and printers).

To refresh this page, click 

. This will initiate the process of querying the network, which can take a few minutes depending on the number of nodes contacted and their responsiveness. Each section of the Diagnostic Report has a different "freshness" attribute. See the section below for its attribute.

Diagnostic

Parameter	Description
Status last gathered	Date and time that the diagnostic tests were last run. These tests are run every ten minutes and also when the administrator clicks the **refresh** button on the **Diagnostic Report** page.
Report displayed	Date and time that the Diagnostic Report was last displayed.

System

The values in the section are updated every minute.

Parameter	Description
System Load (past 15 minutes):	This metric ranges from 0% to 100% and shows how heavily the PSA has been used in the past 15 minutes. If the System Load often displays over 80%, the PSA is overloaded and some of the printers should be migrated to another PSA.
Disk Usage	This metric ranges from 0% to 100% and shows the amount of spool disk in use. If the Disk Usage value is • above 80%: an error log is generated. • above 90%: a critical log is generated • 100%: the PSA will not be able to print. The most common reason for high disk utilization is that one or more printers is not printing and print jobs are accumulating on the PSA for that printer or printers. Check the Printer Status on the Diagnostic Report page to see if this is true. High spool utilization can also indicate that the PSA is overloaded. If the PSA is frequently overloaded, some of the printers should be migrated to another PSA.

DNS/WINS Servers

The values in this section are updated each time status is gathered.

Parameter	Description
DNS IP Address	IP address of the DNS server
Connection Status	Valid statuses are • **Connected** • **Cannot be contacted**: The DNS server cannot be found. It does not respond to a network query or ping. • **No entry**: The forward entry, the reverse entry, or both forward and reverse entries for the PSA are missing from the DNS server. These entries should be added to the DNS server.
WINS IP Address	IP address of the WINS server

Connection Status	Valid statuses are • **Connected** • **Cannot be contacted**: The WINS server cannot be found. It does not respond to a network query or ping. • **No entry**: The WINS server automatically adds an entry for the PSA onto the WINS server. If there is no entry for the PSA on the WINS server, the WINS server is not functioning properly.

Domain Controllers

This section is displayed if **Domain Authentication** is enabled on the PSA. The values in this section are updated each time status is gathered.

Parameter	Description
Hostname	Host name of the Domain Controller. This field is blank if there is no DNS entry for a domain controller, or if the PSA cannot access any DNS servers.
IP Address	IP Address of the Domain Controller
Role	Determined by the NetBIOS name from the WINS server. Valid statuses are • **Primary**: Primary Domain Controller. • **Backup**: Backup Domain Controller. • **Unknown**: Either the Domain Controller cannot be contacted, or it is an Active Directory Domain Controller which means it is a peer (and there are no primary or backup domain controllers)..
Connection Status	Valid statuses are • **Connected** • **Not configured**: The PSA is in workgroup mode. • **Cannot be contacted**: The domain controller cannot be found. It does not respond to a network query or ping. • **No DNS entry for the Domain Controller**: The IP address for the domain controller on the DNS server is either not valid or not for the domain controller. • **No WINS entry for the domain**: The WINS server automatically adds an entry for the PSA onto the domain controller. If there is no entry for the PSA on the domain controller, the WINS server is not functioning properly. • **Domain Controller not in the current domain**: The domain controller is a valid domain controller. However, it is not associated with the same domain to which the PSA is currently joined. • **There is no machine account for this PSA on the Domain Controller**: The machine account is not joined to the domain.

Printer Status

The values in this section are updated each time status is gathered.

Parameter	Description
Share Name	Share name for the printer.
Printer Address	The printer address will be in the format <address>:<queuename>, where address is either the hostname or IP address, depending on what form the administrator entered when creating the share.
Printer Connection Status*	Valid statuses are • **Connected** • **Printer cannot be contacted**: The printer cannot be found. It does not respond to a network query or ping. • **LPD not supported**: The printer does not support LPD.
Printer SNMP Status*	Valid statuses are • **Door open** • **Low paper** • **Low toner** • **No paper** • **No toner** • **Offline** • **Online** • **Printer jammed** • **Service required** • **Unknown state**: The printer might not support SNMP, or the network is busy and a response to the SNMP query was not received in the time-out period.

Note: Printer information is only returned from printers that support the standard printer MIB (RFC1759). Printers that do not support the standard printer MIB or who have a real community name other than "Public" will display "Status unknown".

Network Statistics

The values in this section are updated every time the Diagnostic Report is displayed. To refresh only this section, select **Diagnostic Report** (on the menu under **Maintenance**) rather than pressing the **Refresh** button. New network statistics will be displayed without waiting for the network requests to all of the DNS servers, WINS servers, domain controllers, and printers.

Parameter	Description

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 Packets Dropped	Number of attempted transmit packets dropped since the last reboot because of excessive collisions.
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 collisions encountered since the last reboot while attempting to transmit packets.

Event Log

Links within this document:

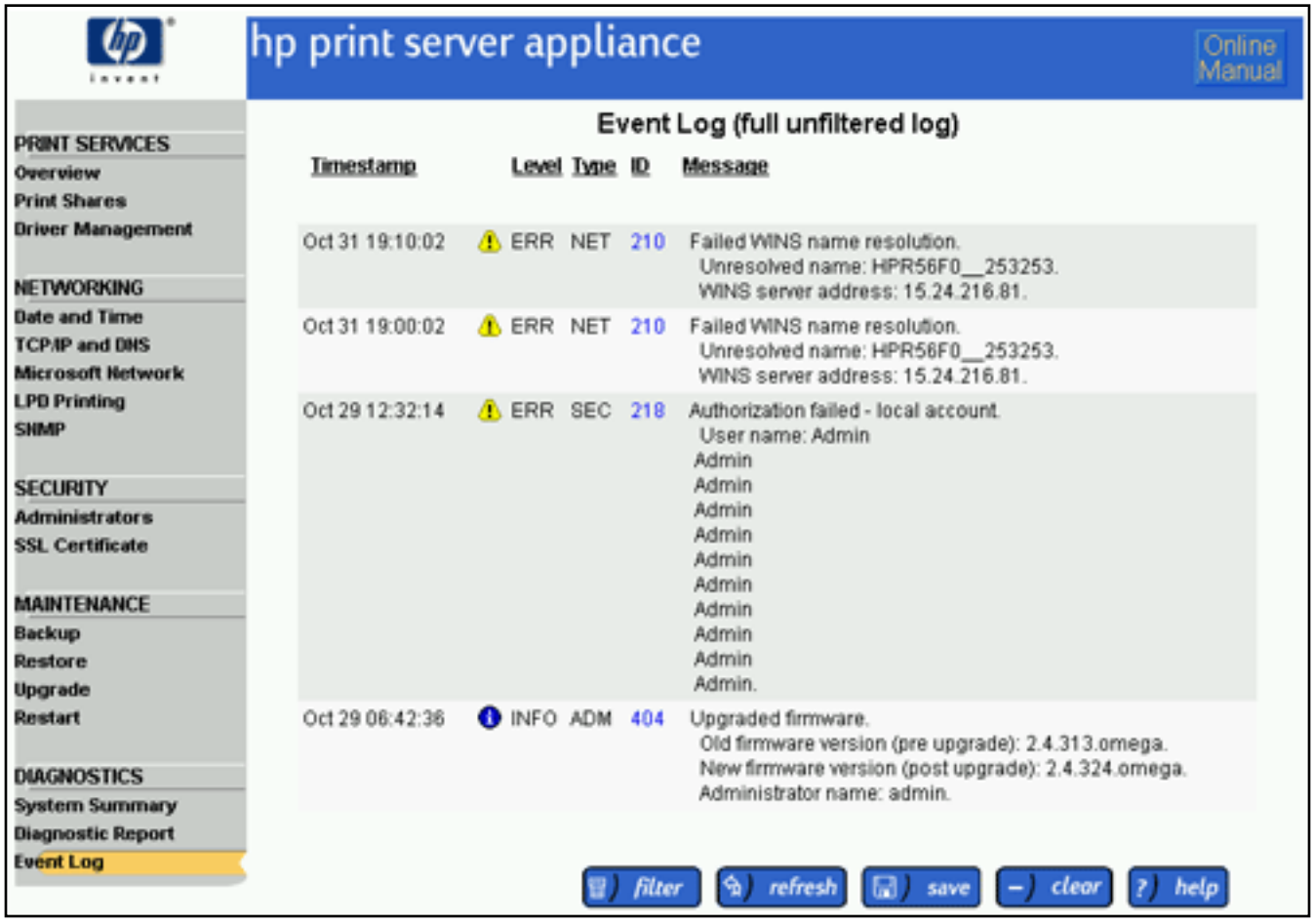
Links to related documents:

- 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.

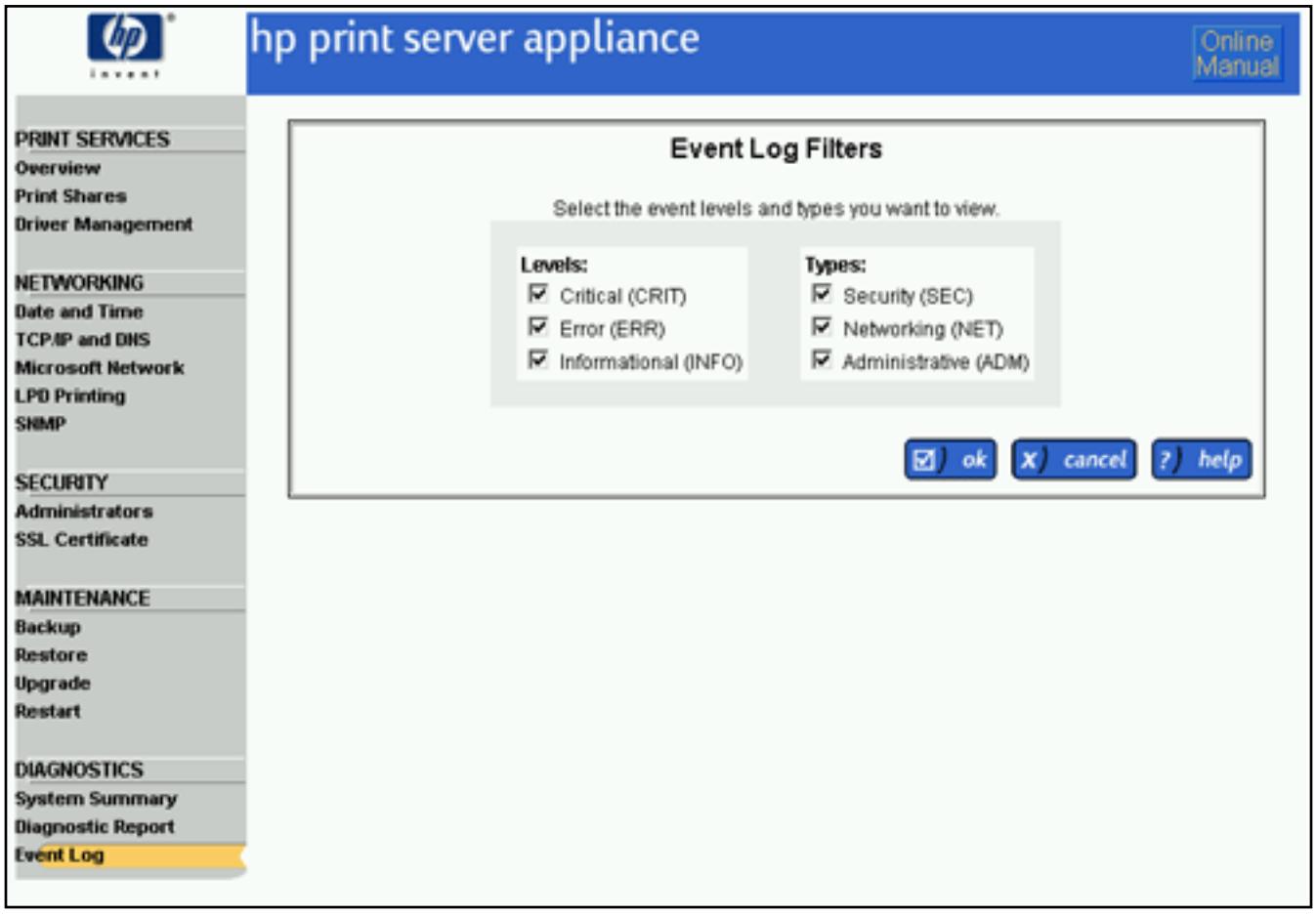
Fields on the Event Log Page

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

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Initiated standard shutdown (102)

Level: Informational

Category: Administrative

Description: The PSA was shut down safely. This is generally done by using the power button on the front panel or through **Restart** (in the web interface under **Maintenance**).

Completed standard startup (103)

Level: Informational

Category: Administrative

Description: The PSA completed startup. The preceding shutdown was a safe shutdown (typically through the power button on the front panel or through the web interface using **Restart** (in the web interface under **Maintenance**).

Note: If the administrator's name cannot be determined and is displayed as "None", then it must have been changed using the front panel.

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

Level: Informational

Category: Administrative

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

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

Running on UPS battery due to power failure (105)

Level: Informational

Category: Administrative

Description:A power failure occurred and the PSA 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 PSA is schedule to run for one minute on the Uninterruptable Power Supply (UPS) battery. This permits a safe shutdown of the PSA. However, during this period, the UPS reached a power level that was too low and, in response to this, the PSA 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 PSA is scheduled to run for one minute on the UPS (Uninterruptable Power Supply) battery. This permits a safe shutdown of the PSA. That one minute period has expired, so the PSA shut itself down.

Shutdown cancelled. Normal power restored (108)

Level: Informational

Category: Administrative

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

High disk utilization-disk utilization is at 80-90% of capacity (109)

Level: Error

Category: Administrative

Description: The spool partition on the PSA is at 80-90% of capacity. This may be due to one of the following conditions:

- one or more printers are not online
- connectivity to one or more printers has been disrupted
- unusually high printing volume by users

Action: It is necessary for the administrator to take one or more of the following actions:

- check online status of printers
- check the connectivity of printers
- evaluate print network configuration (improved throughput can occur with the addition of more printers per PSA or with the reduction of the number of users per PSA)

Critically high disk utilization-disk utilization is at 90-100% of capacity (110)

Level: Critical Error

Category: Administrative

Description: The spool partition on the PSA is at 90-100% of capacity. This may be due to one of the following conditions:

- one or more printers are not online
- connectivity to one or more printers has been disrupted
- unusually high printing volume by users

Action: It is necessary for the administrator to take one or more of the following actions:

- check online status of printers
- check the connectivity of printers
- evaluate print network configuration (improved throughput can occur with the addition of more printers per PSA or with the reduction of the number of users per PSA)

DHCP provided hostname discarded-value is too long or invalid. Using manually provided value (111)

Level: Informational

Category: Networking

Description: The hostname provided by DHCP was longer than the maximum number of characters allowed or it included invalid characters. (This does not include the domain portion of the hostname.) As a result, the hostname provided on the **TCP/IP and DNS Settings** is being used. If no hostname has been provided, the default value is used.

Action: The administrator should ensure that they have provided a valid and appropriate hostname on the **TCP/IP and DNS Settings** page.

DHCP provided domain name discarded- value is too long or invalid. Using manually provided value (112)

Level: Informational

Category: Networking

Description: The DNS domain name provided by DHCP was longer than the maximum number of characters allowed or it included invalid characters. As a result, the DNS domain name provided on the **TCP/IP and DNS Settings** page is being used. If no DNS domain name has been provided, the default value is used.

Action: The administrator should ensure that they have provided a valid and appropriate DNS domain name on the **TCP/IP and DNS Settings** page.

Cannot communicate with domain controller (200)

Level: Error

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 host name specified is not a domain controller
- power is disconnected or interrupted

Action: Check the Domain Membership Status field on the **Microsoft Network Settings** page (in the web interface under **Networking**) to verify that the PSA can communicate with the domain controller. If the domain controller the PSA was communicating with is no longer available, the PSA 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 PSA, ensure that the TCP/IP configurations, as entered on the **TCP/IP and DNS** page (in the web interface under **Networking**), 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 PSA 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 Network Settings** page (in the web interface under **Networking**), 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 PSA, ensure that the TCP/IP configurations, as entered on the **TCP/IP and DNS** page (in the web interface under **Networking**), 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 PSA using 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 PSA. 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 PSA 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 Network Settings** page (in the web interface under **Networking**), the security settings may have changed. Verify that the user has authority to print. This can be done from the web interface by selecting **Print Shares** -->**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: Error

Category: Networking

Description: The WINS server specified on the **Microsoft Network Settings** page (in the web interface under **Networking**) experienced one of the following conditions:

- network problems (cable malfunction, hub, or router problems)
- not on the network
- the IP address or host name 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 Network Settings** page and try again.

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

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

Failed WINS name resolution (210)

Level: Error

Category: Networking

Description: The PSA 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 PSA. If the PSA 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 (in the web interface under **Networking**).

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 PSA will not be able to authenticate users.

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 **Print Shares** page (in the web interface under **Print Services**).
- Monitor the log file for additional unauthorized access attempts.

For more information, see NT Domain Security.

Cannot communicate with DNS server (214)

Level: Error

Category: Networking

Description: The DNS server specified on the **Microsoft Network Settings** page (in the web interface under **Networking**) experienced one of the following conditions:

- network problems (cable malfunction, hub, or router problems)
- not on the network
- the IP address or host name specified is not a domain controller
- power is disconnected or interrupted

Action:

- Retype the DNS server address in the xxx.xxx.xxx.xxx format on **Microsoft Network Settings** page and try again.

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

- If the DNS servers, WINS servers, or Domain Controller are not on the same subnet as the PSA, ensure that the TCP/IP configurations, as entered on the **TCP/IP and DNS** page (in the web interface under **Networking**), are configured correctly and that the network infrastructure, such as the default gateway, is configured and is operational.

Cannot communicate with any WINS servers (215)

Level: Critical Error

Category: Networking

Description: The WINS servers specified on the **Microsoft Network Settings** page (in the web interface under **Networking**) experienced one of the following conditions:

- network problems (cable malfunction, hub, or router problems)
- not on the network
- the IP address or host name specified is not a domain controller
- power is disconnected or interrupted

Action:

- Retype the WINS servers' addresses in the xxx.xxx.xxx.xxx format on **Microsoft Network Settings** page and try again.

Properly configured WINS servers are essential for the proper operation of the PSA. If the PSA cannot reach the WINS servers, users on other subnets (on the other side of a router) will not be able to see the PSA in Network Neighborhood.

- If the DNS servers, WINS servers, or Domain Controller are not on the same subnet as the PSA, ensure that the TCP/IP configurations, as entered on the **TCP/IP and DNS** page (in the web interface under **Networking**), are configured correctly and that the network infrastructure, such as the default gateway, is configured and is operational.

Cannot communicate with any DNS servers (216)

Level: Critical Error

Category: Networking

Description: The DNS servers specified on the **Microsoft Network Settings** page (in the web interface under **Networking**) experienced one of the following conditions:

- network problems (cable malfunction, hub, or router problems)
- not on the network
- the IP address or host name specified is not a domain controller
- power is disconnected or interrupted

Action:

- Retype the DNS servers' address in the xxx.xxx.xxx.xxx format on **Microsoft Network Settings** page and try again.

  Properly configured DNS servers are essential for the proper operation of the PSA. If the PSA cannot reach the DNS servers, users on other subnets (on the other side of a router) will not be able to see the PSA in Network Neighborhood.

- If the DNS servers, WINS server, or Domain Controller is not on the same subnet as the PSA, ensure that the TCP/IP configurations, as entered on the **TCP/IP and DNS** page (in the web interface under **Networking**), are configured correctly and that the network infrastructure, such as the default gateway, is configured and is

operational.

Authentication failed (217)

Level: Error

Category: Security

Description: The user attempted to access the PSA, but the request was denied because the user identity was not confirmed or user was not authorized to use the PSA.

Action: It is necessary for the administrator to take one or more of the following actions:

- retype the name and password combination
- verify that the user account exists
- monitor the log file for additional unauthorized access attempts

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Authorization failed - local account (218)

Level: Error

Category: Security

Description: The user attempted to access PSA, but the request was but the request was denied because the user identity was not confirmed or user was not authorized to use the PSA. Local account access to the PSA is supported when NT Domain authentication is disabled on the **Microsoft Network Settings** page (in the web interface under **Networking**).

Action: It is necessary for the administrator to take one or more of the following actions:

- retype the name and password combination
- verify that the user account exists
- monitor the log file for additional unauthorized access attempts

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Authorization failed - domain account (219)

Level: Error

Category: Security

Description: The user attempted to access the PSA, but the request was denied because the user identity was not confirmed or the user was not authorized to use the PSA. Domain account access to the PSA is supported when NT Domain authentication is enabled on the **Microsoft Network Settings** page (in the web interface under **Networking**).

Action: It is necessary for the administrator to take one or more of the following actions:

- retype the name and password combination
- verify that the user account exists
- monitor the log file for additional unauthorized access attempts

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Rejected client connection due to resource limits (221)

Level: Error

Category: Administrative

Description: The PSA limits the number of simultaneous client printer connections.

For printing, this limit is rarely an issue; clients usually connect, then send their print job (s), and then disconnect. Across a large population it is possible, although unlikely, that a sufficiently large number of clients might choose to print at the same time.

Another situation that can use up available connections occurs when clients open the printer window in order to view their print jobs. Leaving the printer window open will hold the connection open even after the jobs have been printed.

Action:

- If a large number of clients frequently print at the same time, it might be necessary to redistribute some clients onto another PSA.
- Clients should be encouraged to close the printer window when it is no longer showing their jobs.

Cannot communicate with the printer (300)

Level: Error

Category: Networking

Description: Communications between the PSA and the printer were interrupted while the PSA 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 PSA and the printer to make sure they are connected and secure.

Failed DNS name resolution (301)

Level: Error

Category: Networking

Description:

- The IP address and host name of the printer were incorrect (see the **TCP/IP and DNS** page (in the web interface under **Networking**).
- The DNS server configuration was incorrect.

Action: One or more of the following may apply:

- Use the IP address rather than the host name.
- Check the IP address and host name of the printer on the printer's **Properties** page (in the web interface under **Print Services-->Print Shares**).
- Check the DNS Address and DNS Domain Name on the **TCP/IP and DNS** page (in the web interface under **Networking**). 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 PSA to not function properly. For example, if the PSA 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 **LPD Printing** page (in the web interface under **Networking**), 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: Error

Category: Networking

Description: There is a problem with the network between the PSA 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 PSA, the default gateway of the PSA, the printer, and network infrastructure (routers, switches, cables, and so forth.).

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

Level: Critical Error

Category: Networking

Description: The printer was able to communicate with the PSA, but the printer refused to allow the PSA 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 is for a printer (not some other device) (in the web interface under **Print Services-->Print Shares-->Properties**). 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.)

Detected printer problem (305)

Level: Critical Error

Category: Administrative

Description: The PSA was able to communicate with the printer, but the print job was not printed due to one of the following reasons:

- no paper
- no toner
- printer door open

- paper jam
- printer is off-line
- service required for the printer

Action: Fix the identified problem at the printer.

Changed IP address (400)

Level: Informational

Category: Administrative

Description: The IP address of the PSA has been changed successfully on the **TCP/IP and DNS** page of the web interface or through the front panel of the PSA.

Note: If the administrator's name cannot be determined and is displayed as "None", then it must have been changed using the front panel.

Added printer (401)

Level: Informational

Category: Administrative

Description: The printer has been added to the PSA successfully using the Add Printer feature either in Web Jetadmin (on the **PSA Print Share Management** page) or in the web interface (**Print Services-->Print Share List**).

Deleted printer (402)

Level: Informational

Category: Administrative

Description: The printer was deleted successfully on the **Printer Share List** page (in the

web interface under **Print Services**).

Changed printer IP address (403)

Level: Informational

Category: Administrative

Description: The IP address for the printer has been changed successfully on the printer's **Properties** page (in the web interface under **Print Services-->Print Shares-->Properties**).

Upgraded firmware (404)

Level: Informational

Category: Administrative

Description: The firmware for the PSA has been upgraded successfully using the **Upgrade** feature (in the web interface under **Maintenance**).

Deleted printer driver (405)

Level: Informational

Category: Administrative

Description: The printer driver was deleted successfully on the **Driver Management** page (in the web interface under **Print Services-->Driver Management**).

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 **Maintenance**).

Backed up settings (407)

Level: Informational

Category: Administrative

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

Failed to restore settings from backup file (408)

Level: Informational

Category: Administrative

Description: The configuration settings for the PSA could not be restored from the specified backup file using the **Restore** feature (in the web interface under **Maintenance**).

Added administrator account (409)

Level: Informational

Category: Administrative

Description: The administrator account has been added to the PSA successfully using the **Administrators** feature (in the web interface under **Security**).

Deleted administrator account (410)

Level: Informational

Category: Administrative

Description: The administrator account was removed from the PSA successfully using the remove feature in **Administrators** (in the web interface under **Security**).

Changed WINS server address (411)

Level: Informational

Category: Administrative

Description: The WINS server address has been successfully changed on the **Microsoft Network Settings** page (in the web interface under **Networking**).

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 (in the web interface under **Networking**).

Enabled NT domain authentication (413)

Level: Informational

Category: Administrative

Description: NT domain authentication has been enabled on the **Microsoft Network Settings** page (in the web interface under **Networking**).

Disabled NT domain authentication (414)

Level: Informational

Category: Administrative

Description: NT domain authentication has been disabled on the **Microsoft Network Settings** page (in the web interface under **Networking**)..

Added account in NT domain (415)

Level: Informational

Category: Administrative

Description: A new computer account for the PSA was created on the NT domain using the **Microsoft Network Settings** page (in the web interface under **Networking**).

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 (in the web interface under **Networking**).

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 (in the web interface under **Networking**).

Disabled LPD printing for all hosts (418)

Level: Informational

Category: Administrative

Description: LPD printing has been disabled on the **LPD Settings** page (in the web interface under **Networking**).

Set NT user capabilities (419)

Level: Informational

Category: Administrative

Description: A user's access level for a particular printer has been changed through **Administrators** (in the web interface under **Security**).

Failed to create NT domain machine account (420)

Level: Informational

Category: Administrative

Description: Using the **Microsoft Network Settings** page (in the web interface under

Networking), 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 any of the following reasons.

- 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:

- Re-type the user name 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 Network Settings** 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 PSA is correct (as entered on the **Microsoft Network 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 PSA was changed successfully on the

Microsoft Network Settings page (in the web interface under **Networking**).

Changed time (423)

Level: Informational

Category: Administrative

Description: The time was changed successfully on the **Date and Time** page (in the web interface under **Networking**).

Removed administrator access from domain accounts (424)

Level: Informational

Category: Administrative

Description: An administrator account was successfully deleted from the specified domain on the **Admin Accounts - Domain Accounts** page (in the web interface under **Security-->Administrators**).

Changed DNS server address (425)

Level: Informational

Category: Administrative

Description: The DNS server address has been successfully changed on the **TCP/IP and DNS** page (in the web interface under **Networking**).

Changed SSL encryption level (426)

Level: Informational

Category: Administrative

Description: The level of SSL encryption used for encrypting the http data has been changed successfully.

Installed self-signed certificate (427)

Level: Informational

Category: Administrative

Description: A new self-signed certificate (signed by the PSA) has been created and is now on the PSA.

Note: If the administrator's name cannot be determined and is displayed as "None", then it must have been changed using the front panel.

Generated a certificate request to send to a certificate signing authority (428)

Level: Informational

Category: Administrative

Description: A certificate signing request has been generated; the user now needs to send this request to the Certification Authority to sign and install the certificate.

Installed certificate from a certificate signing authority (429)

Level: Informational

Category: Administrative

Description: The new certificate that was requested from the Certification Authority has

been installed on the PSA. The new certificate will be used for future connections.

Failed to install certificate from a certificate signing authority - the certificate credentials do not match the pending request (430)

Level: Error

Category: Administrative

Description: The attempt to install or replace the existing certificate on the PSA has failed due to the certificate's public key.

Action: Ensure that the signed certificate is being installed against the same certificate request. This means modifications cannot be made to the signed certificate after it has been received from the certificate authority. The signed certificate must also belong to the same PSA on which the certificate request was generated.

Enabled SNMP v1/v2 (431)

Level: Informational

Category: Administrative

Description: SNMP v1/v2 has been enabled. In "RO" mode the agent will only respond to snmp-get requests. In "RW" mode the agent will respond to both snmp-get and snmp-set requests.

Disabled SNMP v1/v2 (432)

Level: Informational

Category: Administrative

Description: SNMP v1/v2 has been turned off. The PSA will no longer respond to SNMPv1/v2 requests. However, registered hosts will still receive traps.

Enabled SNMP v3 (433)

Level: Informational

Category: Administrative

Description: An SNMPv3 account has been created and installed on the PSA.

Disabled SNMP v3 (434)

Level: Informational

Category: Administrative

Description: All SNMPv3 accounts have been removed from the PSA.

Added destination to SNMP trap notification list (435)

Level: Informational

Category: Administrative

Description: A host has been added to the list of recipients of SNMPv2 traps.

Removed destination from SNMP trap notification list (436)

Level: Informational

Category: Administrative

Description: A host has been deleted from the list of recipients of SNMPv2 traps.

Enabled redirection to HTTPS (437)

Level: Informational

Category: Administrative

Description: Redirecting the http request to the secure port has been enabled. Any http request for port 80 will be sent over the SSL (secure socket layer).

Disabled redirection to HTTPS (438)

Level: Informational

Category: Administrative

Description: Redirecting the http request to the secure port has been disabled. Any http request for port 80 will be processed by the web server as a non-secure request and any https request will get processed as a secure connection.

Added WINS server (439)

Level: Informational

Category: Administrative

Description: The WINS server was added successfully on the **Microsoft Network Settings** page (in the web interface under **Networking**).

Deleted WINS server (440)

Level: Informational

Category: Administrative

Description: The WINS server was deleted successfully on the **Microsoft Network Settings** page (in the web interface under **Networking**).

Added DNS server (441)

Level: Informational

Category: Administrative

Description: The DNS server was added successfully on the **TCP/IP and DNS** page (in the web interface under **Networking**).

Deleted DNS server (442)

Level: Informational

Category: Administrative

Description: The DNS server was deleted successfully on the **TCP/IP and DNS** page (in the web interface under **Networking**).

Failed to upgrade firmware (443)

Level: Informational

Category: Administrative

Description: The firmware for the PSA has not been upgraded.

Failed to backup settings (444)

Level: Informational

Category: Administrative

Description: The configuration settings for the PSA have failed to back up. A backup file has not been generated.

Failed to restore settings from backup file (445)

Level: Informational

Category: Administrative

Description: The configuration settings from the backup file have not been restored.

Created NT domain account (446)

Level: Informational

Category: Administrative

Description: The NT domain account was successfully created.

Joined NT domain (447)

Level: Informational

Category: Administrative

Description: The administrator account successfully joined the NT domain.

Installed printer driver (500)

Level: Informational

Category: Administrative

Description: The printer driver was successfully installed onto the PSA.

Initialized printer driver (501)

Level: Informational

Category: Administrative

Description: The printer driver was successfully initialized on the PSA and can now be used for point and print.

Printer driver installation failed (502)

Level: Error

Category: Administrative

Description: The printer driver was not installed onto the PSA. One of the following conditions exist:

- The user trying to install the printer driver has insufficient rights on the PSA or on the PC.

  In order to install drivers onto the PSA, a user must be logged onto the PC with a user account that has permission to install software on that PC, and have a corresponding administrator account on the PSA. If NT domain authentication is enabled (in the web interface under **Networking-->Microsoft Network Settings** page), administrator accounts on the PSA can be set up on the **Domain Account** page (in the web interface under **Security-->Administrators**). If NT domain authentication is not enabled, the user must set up a local administrator account on the PSA, with a user name and password that matches the NT user account.
- There is a communication error with the PSA.
- There is a problem with the printer driver. Reasons might be:
  - the INF file is an inappropriate format.

- the INF file cannot be found.
- the process was canceled by the user.
- insufficient memory on the PC.
- the driver failed to queue correctly.
- the path to the .inf file exceeds the 128 character maximum.
- the .inf file is for an operating system that is incompatible with the operating system that the user selected.
- there is another instance of the HP Add Driver Wizard running on this PC.

Action:

- In the case of a communication error, try again when there is less traffic on the network.
- Check for an updated version of the driver. (Go to http:\\www.hp.com.)
- Select a different .inf file that matches the operating system selected.
- Select an .inf file with a path less than 128 characters in length.
- Configure the PSA and PC with appropriate access credentials as described in Description above.

Printer driver initialization failed. Driver has been disabled for automatic driver download (point and print) (503)

Level: Error

Category: Administrative

Description: The driver could not be initialized and has been disabled by the PSA. Disabled drivers are not suitable for point and print.

Action:

Add drivers from http:\\www.hp.com if you need HP drivers. You will be sure to get the latest version of the driver.

Installed printer driver - installed driver was for a different OS version than specified (504)

Level: Informational

Category: Administrative

Description: Drivers for older operating systems (for example, NT) can successfully work with newer operating systems (for example, XP). Consequently, new drivers are not always developed for newer operating systems if an older driver works with the operating system. This message indicates that a newer driver was actually installed, and not an older driver.

System Messages

Links within this page:

- Add Printer and Add Driver Wizards

Under Print Services:

- Print Shares Page
- Driver Management Page

Under Networking:

- Date/Time Page
- TCP/IP and DNS Settings Page
- Microsoft Network Settings Page
- LPD Printing Page
- SNMP Settings Page

Under Security:

- Administrators Page
- SSL Certificate Page

Under Maintenance:

- Backup, Restore, Upgrade, and Restart Pages

Under Diagnostics:

- Event Log Page

Links to related pages:

- Diagnostics
- Event Log Messages
- Frequently Asked Questions
- System Summary
- Troubleshooting

Add Printer Wizard and Add Driver Wizard

Message	Explanation / Remedy
driver **failed to initialize**	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 PSA 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 PSA and the user will be prompted to provide the printer driver files.
driver **failed to install**	The driver was not installed successfully. Please try again.
driver_name **installed as a Windows NT 4.0 driver**	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 **- installing...**	Informational.
driver_name **driver - invalid .inf file.**	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.
driver **successfully initialized**	Informational.
driver **successfully installed**	Informational.
driver **- keeping existing driver**	User chose to not replace a driver that was already installed on the PSA.
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 a Java virtual machine is not installed in the browser, refer to Sun Microsystem's web site or to Microsoft's web site for information about downloading one. 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".
Application Error **Driver Management software not installed properly.**	Try emptying your browser's cache, then close down all instances of your browser. Then restart your browser. If the problem persists, please contact HP support.

Application Error
There may be another instance of the HP Add Driver Wizard running on this PC. Close down all instances of the Add Driver Wizard, then try running the Add Driver Wizard again.

There may be another instance of the HP Add Driver Wizard running on this PC. Make sure there are no other instances of the Add Driver Wizard running, then try running the Add Driver Wizard again.

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 PSA 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.

Canceling. Please wait...

Informational.

Download Error: Add Driver Software
There may be another instance of the HP Add Driver Wizard running on this PC or you may be logged to this PC with insufficient privileges. Make sure there are no other instances of the Add Driver Wizard running and verify that you are logged in to this PC with the appropriate access privileges, then try running the Add Driver Wizard again.

Self explanatory.

Driver could not be initialized:
This driver could not be initialized on the PSA, so it has been disabled for automatic driver download (for example, 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 PSA 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 PSA 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 PSA.

This driver could not be initialized on the PSA, so it has been disabled for automatic driver download (for example, 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.

Driver does not match OS: **The driver information file *file_name* 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 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; this will ensure this driver works properly with Windows 2000 and Windows XP. If you choose not to find the native driver, test the driver thoroughly after it has been installed and initialized.
Driver does not match OS: ***file _name* is not the correct driver information file for Windows 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.
Driver information not found: **The driver information in *file_name* 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 PSA: 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.
Driver Initialization - initialization complete	Informational.
Driver Initialization - initialization failed	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 PSA 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 PSA and the user will be prompted to provide the printer driver files.
Driver Installation Complete	Informational.
Driver Initialization Required	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 PSA 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 PSA and the user will be prompted to provide the printer driver files.

Error: Driver does not match OS *.inf_file_name* is not the correct driver information file for *selected_OS*. It only contains driver information for *OS_supported_by_.inf*. The specified driver will NOT be installed. To add a driver for *selected_OS*, rerun this Add Driver wizard and specify the correct driver setup information file (*.inf). For more information on drivers, consult the online manual.	The .inf file specified for the selected operating system is actually a driver for another operating system. You will need to re-run the Add Driver wizard and either specify the correct operating system for this .inf file, or specify a .inf file that supports your selected operating system.
Error: Driver does not match OS *.inf_filename* is not the correct driver information file for Windows 9x (Windows 95, 98, or Me.) It only contains driver information for *supported_OS*. Please specify another driver setup information file (*.inf).	The .inf file specified for Windows 9x is actually a driver for another operation system. You will need to re-run the Add Driver wizard and either specify the operating system supported by the selected .inf file, or choose a .inf file that supports Windows 9x.
Error: Driver does not match OS *.inf_file_name* is not the correct driver information file for *selected_OS*. It only contains driver information for Windows 9x (Windows 95, 98, or Me.) The specified driver will NOT be installed. To add a driver for *selected_OS*, rerun this Add Driver wizard and specify the correct driver setup information file (*.inf). For more information on drivers, consult the online manual.	The .inf file specified for the selected operating system is actually a driver for Windows 9x. You will need to re-run the Add Driver wizard and either specify Windows 9x as the operating system for this .inf file, or specify a .inf file that supports your selected operating system.
Initialization Complete	Informational.
Initializing: *driver_name*	Informational.
Initializing driver for this version of firmware.	Informational.
Initializing Printer Driver	Informational.
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 PSA 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.
Installing: *driver*	Informational.
Installing Printer Drivers	Informational.

Invalid Driver Setup Information File: *file_name* 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.
Invalid Driver Setup Information File: *file_name* 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 typing.
Invalid Driver Setup Information File: *file_name* 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 file name 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 file name extension and retry.
Invalid Driver Setup Information File: No driver setup information file selected. Please enter a driver setup information file (*. inf).	The .inf file name is blank. Complete the file name.
Keep the existing driver	Skip the installation and keep the driver version that is already installed in the PSA.
Loading	Loading the Add Driver Wizard.
New Driver - Replace Driver? This driver has already been installed. A version of this driver is already installed on the print server appliance. Do you want to keep the existing driver or use the new one? Applications may print differently with the new driver.	A warning message that informs the user that there is already a version of the driver installed on the PSA. Asks if he/she would like to replace that driver or keep the existing installed version.
Optional: Install *driver_name* drivers for additional operating systems. Select the operating systems that will need drivers and specify the appropriate driver setup information files (.inf files).	The user may choose to install drivers for additional operating systems.
Please wait while the *driver_name* printer driver is initialized.	Informational.
Please wait while your *driver_name* printer drivers are installed.	Informational.
Please wait while your printer drivers are initialized.	Informational.
Please wait while your printer drivers are installed.	Informational.
Preparing to install drivers...	Informational.
Replace the existing driver	Replace the driver that is already installed on the PSA with the new .inf selected.

Resource Error **This Windows system is either out of memory or out of disk space. If it is out of disk space, delete some files and try again. If it is out of memory, restart the system and try again.**	The **Add Driver Wizard** requires that your system's physical memory usage be less than 90% and that there is a minimum of 15MB hard disk space on your client PC in order to execute properly. Check your system resources: if you are out of disk space, delete some files and run the **Add Driver Wizard** again. If you are out of memory, reboot your system and run the **Add Driver Wizard** again. It is possible that the physical memory usage check would still fail after a reboot, if there are a lot of applications that start automatically upon login. The user might have to shut down some applications and try again.
Security Failure **The security setting of your browser is too restrictive. This applet requires access to run an application on your PC and to read and write to file system on your PC.**	In order to install drivers on your PSA, this tool must run an application on your client PC. When your browser displays a security message asking if you trust content signed by HP, you need to grant the requested privileges in order to install drivers.
Sending query to PSA.	A query is being sent to the PSA to find out which drivers are already installed on the PSA.
Specify the location of the driver setup information file (.inf file) and indicate which operating system the driver supports.	In order to install a driver, the user must select a .inf file for the printer and OS in question.
Successfully initialized driver	Informational.
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 are 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 a Java virtual machine is not installed in the browser, refer to Sun Microsystem's web site or to Microsoft's web site for information about downloading one. 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".
This driver has not been initialized yet. To ensure that this driver will work properly for automatic driver download it needs to be initialized. Click  **to continue.**	In order for drivers to be deployed to client machines using point and print, the drivers must be properly initialized.
This driver has now been initialized and is enabled for automatic driver download.	In order for drivers to be deployed to client machines via using and print, the drivers must be properly initialized.

Unable to initialize driver for this version of firmware: **This driver will be disabled for automatic driver download. Clients attaching to the printer will have to supply their own driver.**	In order for drivers to be deployed to client machines using point and print, the drivers must be properly initialized. If a driver has failed to initialize it will be disabled by the PSA 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 PSA and the user will be prompted to provide the printer driver files.
Unauthorized to Perform this Action: **You are logged into the PC as : *user_name*.** **That user does not have administrative or power user rights on this PSA. To perform this action, you must be logged into Windows with a user name that has:** • **administrative or power user rights on this PC** • **administrative rights (a corresponding admin account) on the PSA**	In order to install printer drivers onto the PSA, 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 and administer printing on that PC, and • have a corresponding administrator account on the PSA. Verify that the user account being used has these permissions. Then empty your browser's cache , close down all instances of your browser, and then restart your browser.
Unauthorized to Perform this Action: **You are logged into the PC as : *user_name*.** **That user does not have administrative rights on this PSA. 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 PSA**.	In order to install printer drivers onto the PSA, 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 and administer printing on that PC, and • have a corresponding administrator account on the PSA. Verify that the user account being used has these permissions. Then empty your browser's cache , close down all instances of your browser, and then restart your browser.
Windows 9x Driver Name Mismatch **The specified Windows 9x setup information file does not contain a driver named *driver_name*. Select the driver that you want to install for your Windows 9x clients, then click ok. To specify a different Windows 9x setup information file, click cancel.**	You have good text for this in your other document.

Print Shares Page

Message	Explanation / Remedy
***Name* is a reserved name.**	That name is reserved for internal use. Retype the name.
Active	Informational message.
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 PSA.

A print server appliance test page has been queued to the (queue) printer queue.	Confirmation message after  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.
Cannot be contacted	The printer cannot be found. It does not respond to a network query or ping.
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 print share's **Properties** page.
Connected	Confirmation message.
Disabled	Informational message.
Door open	Informational message.
Driver *name* not found.	That driver was not found. Choose another driver or reinstall this driver.
Error-Printer unknown	The status of this printer is unknown. Click  to update the status.
Insufficient disk space to write *file name*.	Internal Error. Try reducing the number of print queues.
Invalid Queue Name. Max length is %(len)s, disallowed characters are: %(disallowed)s	Retype the queue name.
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: x.x.x.x 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.
Invalid Print Share Description **Printer descriptions can contain alphanumeric characters, spaces, dashes (-), underscores (_), plus signs (+), commas (,), and periods (.).**	The **Print Share Description** field is optional. If desired, retype the description.
Invalid print share name **Print Share names may only contain alphanumeric characters, underscores (_), dashes (-), periods (.), and question marks (?).**	Retype the printer name.
Low paper	Informational message.
Low toner	Informational message.
LPD Not Supported	The LPD protocol is not supported on this printer, and therefore it cannot be used with a PSA.
No paper	Informational message.

No toner	Informational message.
Off line	Informational message.
Online	Informational message.
Paper jam	Informational message.
Paused	Informational message.
printing	Confirmation message.
queued	Confirmation message.
Service required	Informational message.
spooling	Confirmation message.
The IP Address you entered is the address of this PSA. 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 DNS hostname is being used, a DNS server address must be specified for the PSA on the **TCP/IP and DNS Settings** page (on the menu in the web interface under under **Networking**).
The printer hostname you entered is the same as this print server appliance. Please enter the name or IP address for the printer you wish to add.	Each printer on the network should have a unique hostname. Retype the name or IP address and make sure it is unique.
The printer you selected was not found.	An attempt was made to print to a printer that does not exist.
You must specify a printer name for this printer.	The PSA allows up to 79 characters for the share name. However, for any name over 12 characters, Windows 95/98/ME and older systems might not be able to access the share.
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 (.).
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.
The driver you have selected does not support client side rendering.	A print share is being created and the **client side rendering** box is checked but thie driver is not capable of client side rendering.
NT clients cannot print with drivers using client side rendering. If you have NT clients, do not connect them to this share or go back and deselect client side rendering.	A print share is being created and the driver selected is capable of client side rendering. This is a warning to not use drivers capable of client side rendering with NT clients.

Driver Management Page

Message	**Explanation / Remedy**

Are you sure you want to remove the following drivers...?	One or more drivers were selected and  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.	You attempted to delete the listed active driver(s). To delete an active driver you must either delete the print shares that use it, bind those print shares to a different printer driver, or the driver you are deleting must be an NT or 2K/XP driver where another (non-9x) version of that driver still exists on the PSA.
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)**	An attempt was made to add a driver to the PSA 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 PSA.
You attempted to delete more than one active driver. Only one active driver may be deleted at a time. Only the first active driver in the list will be deleted.	More than one active driver is selected for deletion. Active drivers must be deleted one at a time, so that the corresponding NT version of the driver can be properly initialized.
Deleting this XP/2K driver will require initialization of the NT driver, which requires you to have administrative priveleges both on this PC and on the PSA.	An XP/2K driver that is in-use has been selected for deletion. You should cancel the delete operation if you do not have appropriate priveleges. Then log back in as an appropriate user and delete the driver. Or, you can proceed with this delete and then log back in as an appropriate user later and initialize the driver using the **Initialize** button.
You attempted to delete the following active CSR driver(s): ... To delete an active CSR driver you must either turn off Client Side Rendering on the print shares that use it, point those shares to a different driver, or delete those shares entirely.	An in-use driver capable of client side rendering is selected for deletion. Before if can be deleted, any queues using this driver must be deleted or pointed to a different driver (including the non-client side rendering version of this driver), by unchecking the **client side rendering** box.

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.
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. Retype the date and/or time using the correct format and characters.

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  .
Your date and time settings have been applied.	Confirmation message.

TCP/IP and DNS Settings Page

Message	Explanation / Remedy
DNS server *IP address* cannot be contacted.	Informational.
***Gateway* is not a valid gateway for IP address *IP address* and subnet mask *subnet mask*.**	The IP address of the gateway is unreachable with the currently assigned PSA IP address and subnet mask.
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.
Invalid Gateway Address **The gateway address must be in the format xxx.xxx.xxx.xxx. If the gateway address is unknown, use the PSA'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 PSA's IP address.
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.
NAC Internal Error	Retry the operation.
Restarting network, please wait. **Your network settings have been updated.**	Confirmation message.
This field's value is being assigned by DHCP. If you remain in DHCP mode, your changes to this field will be lost.	Self-explanatory.
WINS server *IP address* cannot be contacted.	Informational.

Microsoft Network Settings Page

Message	Explanation / Remedy
Connected	Confirmation message.
Invalid administrator name: *name*	The administrator name consists of the domainname \administratorname or the adminstratorname. The administrator portion of the administrator name can be up to 20 characters long and include alphanumeric characters and the following special characters: ~ ` ! @ $ % ^ ( ) - _ { } .
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. The following special characters are acceptable: dash (-), period (.)
Invalid domain or workgroup name: *name*	Domain and workgroup names can be up to 15 characters long and include alphanumeric characters and the following special characters: dash (-), period (.), underscore (_)
Invalid hostname *name*	The name of the domain controller is invalid. It must be a valid IP address, contain up to 255 characters, and consist only of alphanumeric characters and the following special characters: dash (-), period (.), underscore (_), dollar sign ($)
Invalid password	The password can be up to 14 characters long and *cannot* include following characters: number sign (#), at sign (@)
Invalid PSA Name **The PSA name must be alphanumeric. Dashes (-) and underscores (_) are acceptable. It can be up to 15 characters long.**	Retype the PSA 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. The WINS server address and the IP address must be in the same format.
Invalid Workgroup Name (workgroup)	The workgroup name typed is not valid. Retype the workgroup name.
Joined to *domain*	Successfully joined the PSA to the domain.
Not joined. Cannot contact *domain controller(s)*.	The PSA did not successfully join the domain, because there is difficulty contacting the domain controller.
Not joined. No account for this device on *domain controller(s)*.	The PSA did not successfully join the domain. No account was created for the device. Try retyping the administrator name and password and rejoining the domain.
The domain controller *name* is not in domain *domain*	The domain controller that has been manually specified is not part of the domain that the PSA is joined to.

This field's value is being assigned by DHCP. If you remain in DHCP mode, your changes to this field will be lost.	Self-explanatory.
WINS server *IP address* cannot be contacted.	Informational.
WINS server *IP address* has no entry for this PSA.	Informational.
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 Printing 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

SNMP Settings Page

Message	**Explanation / Remedy**
Duplicate IP Address and Port Number	The trap destination is already in the table.
Illegal Community Name. Valid characters are *characters*	Retype the community name using only the valid characters.
Invalid Community Name length. Maximum length is *length*	The community name must be between 2 and 32 characters.
Internal Error - SNMPV3AccountAlreadyInstalled	The SNMPv3 account has already been created. To delete it, uncheck **Enable SNMPv3** and then click  .
Invalid character in Authentication Key. Valid 0-9, a-f, A-F	Retype the **Authentication Key** using only numbers 0-9 or characters a-f or A-F.
Invalid character in Privacy Key. Valid 0-9, a-f, A-F	Retype the **Privacy Key** using only numbers 0-9 or characters a-f or A-F.
Invalid IP Address	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 length for Authentication Key	The authentication key must be 32 characters long.
Invalid length for Privacy Key	The privacy key must be 32 characters long.
Invalid length for User Name	The user name can be between 2 and 32 characters long.

Invalid Port Number: *port number*	The port number must be between 0 and 65535.
System call error	Reapply the last command.

Administrators Page

Message	**Explanation / Remedy**
***Name(s)* cannot be contacted.**	The domain controller(s) cannot be contacted. Check that you have entered the correct Domain Controller.
A name is required for the user account.	Type a name for the user account.
Backup	Informational.
Cannot contact the Domain Controller.	The domain controller cannot be contacted. Check that you have entered the correct Domain Controller.
Connected.	Informational.
Domain account name is too long. Maximum length is: *length*	Retype the domain account name.
Domain controller unavailable.	The domain controller is currently unavailable. Check that you have entered the correct Domain Controller.
Domain controller unavailable. Cached data will be returned.	Informational.
Incorrect Domain Name or Password.	Retype the domain name and password.
Invalid Administrator Name The Administrator Name must be alphanumeric and can contain the following special characters: ~ ` ! @ $ % ^ ( ) - + { } ' .	Retype the administrator name.
Invalid domain account name: *name*	Retype the administrator name.
Invalid domain name: *name*	Retype the administrator name.
Invalid domain account name. Valid characters are:	Retype the administrator name.
Insufficient disk space to write *file name*.	Internal Error. Try reducing the number of queues.
Invalid password set.	Retype the domain controller password.
It is not permitted to remove *name*. The PSA grants administrator access to members of this group.	This Domain Admins group cannot be deleted.
Joined to *domain controller(s)*.	Informational.
No account for this device on the Domain Controller.	An account must be created on the Domain Controller before joining the domain.
No group or user list returned. Try again or type in the name(s).	No groups or users were returned by the Domain Controller. Try again, or type the name manually.

No password set.	The domain administrator name or password is incorrect. Retype them.
Not configured.	Informational.
No DNS entry for domain controller: *name(s)*.	Informational.
No entry in the WINS server for the domain.	Informational.
No entry in the WINS server for the Domain Controller.	Informational.
Passwords don't match **The password and confirmation do not match.**	Retype the password and confirmation password. Make sure the passwords typed in both fields are the same.
Primary	Informational.
The administrator account name and password changes have been applied	Confirmation message.
The Administrator Name contains invalid characters. The allowable characters are *characters*.	Retype the Administrator Name.
The Administrator Name is too long. The maximum length is *length*.	Retype the Administrator Name.
The Password contains invalid characters. The allowable characters are *characters*.	Retype the password.
The Password is too long. The maximum length is. *length*	Retype the password.
Unable to join domain: *domain*.	The PSA was unable to join the domain. Check the domain name.
Unknown role.	Informational.

SSL Certificate Page

Message	Explanation / Remedy
Invalid common name	The common name is the fully qualified name or IP address of the PSA. This field can contain up to 64 characters and it cannot be blank (or empty).
Invalid period	The period of time that the certificate is valid for could not be zero or a negative number.

Backup, Restore, Upgrade, and Restart Pages

Message	Explanation / Remedy
A downgrade is in process. Please wait until the process is complete.	Informational.

An I/O Error occurred while transferring the file.	The specified file name is not a valid upgrade file. Retype the file name and try again.
Another *backup, restore, upgrade* is already in progress.	Informational.
***Backup, Restore, Upgrade* in progress.**	Informational.
Error executing setup. Reboot appliance to continue upgrading.	Verify the file is a valid PSA upgrade file and then retry the upgrade process.
Error processing the *restore, _or_upgrade_file_name* file.	Verify the file is a valid restore or upgrade file for the PSA and then retry the restore process.
File corruption has been detected the downgrade process will not complete.	Verify the file is a valid PSA file and then retry the downgrade process.
Generating the backup file.	Informational.
Internal error. Status = *status*.	Verify the file is a valid PSA file and reboot the PSA. Then retry the upgrade or restore process.
Invalid checksum.	Verify file is a valid PSA file and then retry the restore process.
Invalid file type.	Verify the file is a valid PSA file and then retry the restore process.
Invalid *upgrade, restore* file.	Verify the file is a valid PSA file and then retry the upgrade or restore process.
I/O error generating the backup file.	Reboot the PSA and then retry the backup process.
I/O error processing the backup file.	Verify the the file is a valid PSA file. Then reboot the PSA and retry the restore process.
I/O error transferring file.	Verify the file is a valid PSA file and then retry the process.
No *backup, upgrade* file was provided with the restore request.	Retype the file name and retry the restore process.
No backup file is available to transfer. Please retry the backup process.	Retry the backup process.
No file was provided with the upgrade request.	No upgrade file was transferred to the PSA. Retype the complete path to the firmware image (for example, "C:\TEMP\UPGRADE.HP") or click **Browse** to find the saved firmware image. http://www.hp.com/cposupport). Retype the file name and path and then retry the upgrade process. If the file name is unknown, access HP's web site and download the upgrade image (http://www.hp.com/cposupport).

No restore items were selected. Please select at least one item.	Click at least one option and then continue the restore process.
No *upgrade, backup* file was provided with the *upgrade, restore* request.	Type the file name and path and retry the upgrade or restore process.
No upgrade file was provided with the upgrade request.	No upgrade file was transferred to the PSA. Retype the complete path to the firmware image (for example, "C:\TEMP\UPGRADE.HP") or click **Browse** to find the saved firmware image. Retype the file name and path and retry the upgrade process. If the file name is unknown, access HP's web site and download the upgrade image (http://www.hp.com/cposupport).
No upgrade is in progress.	Type the file name and path and retry the upgrade or restore process.
Not enough disk space. Try again when there are fewer print jobs pending.	Self-explanatory.
Not enough disk space for a restore file. Try again when there are fewer print jobs pending.	Self-explanatory.
Please enter a valid path to the *upgrade configuration* file, or click Browse to find the saved *upgrade configuration* file.	When attempting to restore settings or upgrade the firmware, no configuration or upgrade file was specified. Type the complete path to the file (for example, "C:\TEMP*file*.HP") or click **Browse** to find the saved file or firmware image.
Processing the *restore, backup* file.	Informational message.
Rebooting the device.	Informational message.
Status not available - retrying.	The status is currently not available but will be updated in a few moments.
The *backup, restore, upgrade* failed.	Reboot the PSA and then retry the backup, restore, or upgrade process.
The *backup, restore, upgrade* is blocked.	Reboot the PSA and then retry the backup, restore, or upgrade process.
The backup file has been restored successfully.	Confirmation message.
The backup file is ready to transfer.	The data has been backed up and is ready to be saved to the specified location.
The configuration file was successfully restored on this PSA.	Confirmation message.
The restart of the PSA 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.

The specified file is not a valid PSA *configuration, upgrade* file.	Retype the complete path to the configuration file (for example, "C:\TEMP*file*.HP") or click **Browse** to find the saved file or firmware image.
The specified upgrade file cannot be used to upgrade this PSA. Please check for a newer upgrade file.	Verify the file is a valid PSA file whose firmware version is later than the current firmware for your PSA. Then retry the upgrade process.
The upgrade file has been transferred successfully. You will need to restart your PSA for the upgrade to take effect.	Confirmation message.
The upgrade has successfully completed.	Confirmation message.
The upgrade, etc. is in progress.	A backup, restore, or upgrade is already in progress. Please wait until it is complete before attempting another process.
This appliance cannot be *configured, upgraded* with this *upgrade, restore* file version. Please check for a newer *version, upgrade file*.	Verify the file is a valid PSA file and then retry the upgrade process.
Validating the checksum.	Informational message.

Event Log Page

Click here to view possible events in the Event Log.

Message	Explanation / Remedy
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**)
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**)

Troubleshooting the HP Print Server Appliance

Links within this page:

Links to related pages:

- System Messages
- Event Log and Messages
- Frequently Asked Questions
- Diagnostics

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

Hardware Problems

#	Condition	Possible Cause / Solution
1	The PSA 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 support 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 working properly.
4	The **Alert** LED is lit.	• The PSA 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 support.
5	I can't locate the PSA on the network.	• Make sure the PSA 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 PSA is not powered up. Power up the PSA on and let it boot up. For alternative causes/solutions, see Client Setup Problems below.
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 PSA has been normally powered up again. These jobs should require no action, as they will print after the PSA is powered up again. • Jobs in the middle of printing will resume printing when the PSA 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 PSA and power it back up again. After a power outage or any other improper shutdown, the PSA might 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 PSA in Network Neighborhood.	• The PSA will install itself in the workgroup called **workgroup**. If there are no PCs in this workgroup, the PSA will not show up in network neighborhood. Microsoft (R) browsing requires a PC in the workgroup to host a browse list. The administrator must change the workgroup name through the Web interface on the PSA. To choose another workgroup name for the PSA: 1. Access the PSA's web interface by typing the **IP address** in a supported browser window. 2. Click **Microsoft Network Settings page** (under **Networking** in the PSA's web interface). 3. In the window labeled **Windows NT Domain or Workgroup** change the name to the correct workgroup name. 4. Click  . • A less common cause is that the Master Browser list (Network Neighborhood) has not yet been updated with the new PSA. Depending on the size and speed of the network, it may take up to 30 minutes before the network's master browser list gets updated. • Once this browser list gets updated on the PC that's hosting this list, other PCs on the network will check the browser list and be able to see any new devices on the network via Network Neighborhood. **To find the PSA more quickly:** 1. Select **Start**, **Find**, then **Computer**. 2. Type the IP address of the PSA then click **Find Now**.
2	I can't print a test page from the PSA to a printer.	• Incorrect printer IP address or DNS name. Verify or correct the IP address. • Duplicate PSA 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 PSA.	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 PSA. Verify that WINS is configured correctly on the **Microsoft Network Settings** page.
5	How do I know the printer driver I installed on the PSA was installed on the client? Or how can I tell whether the updated driver I installed on the PSA 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 PSA, but the PSA seems to ignore some of my settings.	The PSA 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 PSA 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 drop-down list- 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 PSA's web interface so that the driver can be initialized.
		  ○ New Driver button - the driver can be uploaded to the PSA, but will not be associated with this printer until the administrator uses the PSA'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 check box - not supported
		  ○ Enable printer pooling check box - 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 PSA 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 PSA even though the PSA 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 PSA 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 PSA) is within the "Intranet Zone". There are a number of ways to include the PSA in the "Intranet Zone", but the easiest is to open: Tools--> Internet Options-->Connections-->LAN Settings-->Advanced and type 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 PSA 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 PSA 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 PSA'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 PSA only works with Microsoft's Internet Explorer.
8	I want to use a hyphen in the beginning of some of my PSA names, so that they will print first in a list of PSAs.	The PSA name (entered on the Microsoft Networking Settings page) can contain up to 15 alphanumeric characters. It may also contain dashes (-) and underscores (_). (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 PSA 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 PSAs into it.	The PSA 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 PSA. 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 PSA 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 PSA.
12	The Network Neighborhood browser has not yet updated.	Try accessing the PSA by selecting **Start** from the task bar, and select **Find** and **Computer**.

13	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.	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 PSA 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 PSA) is within the "Intranet Zone". There are a number of ways to include the PSA 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 PSA 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 PSA 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 PSA'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 PSA only works with Microsoft's Internet Explorer.

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 PSA's web interface by selecting **Print Shares->Security**. By default, the group "Everyone" has permission to print. If "Everyone" does not have permission to print, add it. • The PSA 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 Network Settings** page to verify that the PSA 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 PSA can print to the printer by using the "print test page" functionality of the printer property page in the web interface of the PSA. If the test page does not print, there is a problem in the communication between the PSA and the printer. See more information about the **TCP/IP and DNS Settings** page or the **Microsoft Network Settings** page. • The PSA 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 Network Settings** page to verify that the PSA 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 PSA's web interface by selecting **Print Shares->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 Administrators** group. If you are not using NT Domain security, verify that there is an administrator account on the PSA 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 PSA, and select the **Print Shares** page. Select the **Properties** page for that printer. Change the IP address or DNS host name for the printer and click  . 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 PSA 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 PSA powers up it will always be reassigned the same IP address. If you are not using WINS, you may alternatively set the PSA IP address manually and have the DHCP administrator select an IP Address Pool range which excludes the PSA address. Or, have the DHCP administrator supply the PSA 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 **Jobs** page for that printer 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 PSA will handle?	There is no limit for a file size that the PSA can handle.
9	There are a lot of jobs spooled on the PSA. 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 PSA.
10	I am trying to print in Landscape mode, Duplex mode, or multiple copies, but the margins are offset.	If you have not done so, upgrade your firmware to version 2.4.x and initialize the driver for that printer. Delete the print driver from the computer and delete the port created for it. Install the print driver on the computer as a network printer and browse to the print queue on the PSA.

11	The performance of the PSA is very slow when connecting to the PSA via Network Neighborhood or when opening a printer's Property Page in Network Neighborhood.	Several workarounds or solutions are available. Performance issues can be subjective. If printing seems to be slow using the PSA, compare printing through some other means (such as an LPR port on the workstation that prints directly to the printer's IP address). A comparison helps to identify general network, printer, or application problems versus specific print server PSA problems.
		
		• Upgrade the PSA firmware. Click here to download the most current firmware version for the PSA. The latest firmware revision (2.4.x or newer) should fix the following conditions:
		  ◦ **Slow printing/performance** - At first printing is fast, afterwards printing seems to be very slow. Turning the print PSA off then on seems to help.
		  ◦ **Slow Web Pages** - When attempting to access or make changes to the Web page for the PSA, the Web pages are very slow.
		  ◦ **Locks up** - PSA locks up or is unable to print. Turning the PSA off and then on seems to help.
		• Verify the configuration of the DNS server with the network administrator. An incorrectly configured entry on the DNS server for the PSA can cause delays:
		  ◦ connecting to a printer in Network Neighborhood
		  ◦ delays displaying the **Property** page in Network Neighborhood
		  ◦ in printing
		The PSA must have a correctly configured DNS server and the PSA requires entries in both the DNS server's forward and reverse lookup tables. If the DNS server is not configured properly, when a computer tries to connect to the PSA through Network Neighborhood, it could take one to two minutes while the PSA tries to communicate with the DNS server.
		
		Verify the DNS lookup tables using the following steps:

		At the command prompt of a Windows NT or Windows 2000 computer, type the following commands: ○ The following command verifies an entry for the PSA name: **nslookup printappliancename.domain DNS server IP address** (For example: nslookup mypsa.usa 192.168.100.90) If the name lookup does not reply with the PSA's IP address, that means there is no entry for the PSA in the DNS server's Forward Lookup table. The Forward Lookup table is the table the DNS server uses to determine the IP address based on the DNS name. ○ The following command verifies an entry for the PSA's IP address: **nslookup printappliance IP Address DNS server IP address** (For example: nslookup 192.168.100.80 192.168.100.90) If the IP address lookup does not reply with the PSA name, it means there is no entry for the PSA in the DNS server's Reverse Lookup table. The Reverse Lookup table is the table the PSA uses to find a system's name based on its IP address. • Check the PSA's **Microsoft Network Settings page** (under **Networking** in the PSA's web interface). If the **Specified NT Domain Controllers** settings show the host name of the domain server, use the IP address of the server instead. If **Manually specify NT Domain Controllers** is selected, try selecting **Automatically discover NT Domain Controllers** instead. • As a test, try the following: Check the PSA's **Microsoft Network Settings page** (by opening the PSA's web interface). If the PSA is configured to **Enable NT Domain Authentication** (so that it is joining the domain), re-configure it so that it does not join a domain, then see if printing is faster. If it is consistently faster when not joined to the domain than when it is, be sure that the print server has the most current firmware (use the link above). If it is possible to use the PSA when it is not joined to a domain, do so temporarily, then contact HP support. • Check the PSA's **Microsoft Network Settings page** (under **Networking** in the PSA's web interface). If the PSA is configured to use a WINS Server Address, make sure that address is correct. If it is, type the following command at the command prompt of a Windows NT or Windows 2000 computer: **nbtstat -a PSA_hostname** (where *PSA_hostname* is the host name of your PSA) The response should include three to five entries. If the response is a *host not found* message, there may be a problem with the WINS server. Contact your network administrator for this problem.
12	Jobs are getting stuck on the PSA for one of my printers.	The PSA 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 PSA. 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.

13	HP LaserJet print jobs are missing text of graphics, or are printing garbage.	It is strongly recommend that the PSA's firmware be upgraded to latest (2.4.x or newer) to alleviate problems with printer drivers. Click here to download the latest firmware for the PSA. Remove the printer driver from the PSA and from any computer printing to that printer. Download the latest printer driver form the HP Web site and install it on the PSA.
14	The Xerox Document Center 265ST fails to print from the PSA. Print jobs hang in the queue.	These Xerox printers use their own print server cards that require the remote name to be **lp** (in lower case only). In **Printer Properties**, **Other print server** must be selected. The **Remote Queue Name** must be **lp** (lower case).
15	I'm unable to see any advanced printing options in the Print Preferences pages on 2K or XP clients.	Newer Windows 2K and XP drivers now use a new print driver architecture. This new architecture is not compatible with the PSA firmware 2.3.252 or older. Upgrade the PSA firmware to 2.5.XX and reload the 2K/XP printer driver. Select the option "Use client side rendering".
16	I am having problems printing advance features like Watermark, N-up, Rotate 180*, back to front, Booklet...or other advanced printing features.	Newer Windows 2K and XP drivers now use a new print driver architecture. This new architecture is not compatible the PSA firmware 2.3.252 or older. Upgrade the PSA firmware to 2.5.x and reload the 2K/XP printer driver. Select the option "Use client side rendering".

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) If a Java virtual machine is not installed in the browser, refer to Sun Microsystem's web site or to Microsoft's web site for information about downloading one. 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 PSA, but I keep getting the error: **Unauthorized to perform this action**.	In order to install drivers onto the PSA, 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 PSA. If NT domain authentication is enabled (on the **Microsoft Network Settings** page), administrator accounts on the PSA can be set up on the **Administrators-Add Domain Accounts** page (in the PSA's web interface under **Security**). If NT domain authentication is not enabled, the user must set up a local administrator account on the PSA, with a name and password that matches their NT user account.
4	I added a Windows 2000 driver to the PSA, 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 PSA, 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 having problems with Windows 2K and XP drivers.	Problems with Windows 2K and XP drivers can include: • N-up (printing multiple pages in a reduced format on one page) • booklet style (format the print job into a printed booklet) • watermark (print a watermark on each page of the document) • ZoomSmart (scales a letter-sized/A4 document or poster to tabloid/A3, or vice versa) • back-to-front (prints the document in reverse order) • rotate 180 degrees (rotates the document layout but not the paper) If you are having problems with any of these features, first update the firmware. If the problem persists, reinstall the driver and select the "Use client side rendering with this driver" checkbox when selecting the driver to use with the print share. The problem should then be resolved.
7	I cannot point and print a printer driver from the PSA onto my NT client PC.	If you are running version 2.5.XX of the PSA firmware, make sure Client Side Rendering (CSR) is **not** selected for the particular printer driver you are using. CSR drivers are only compatible with 2K or XP clients. If you have a combination of 2K/XP clients and NT clients, either create separate print queues for each platform, or create a single queue and only use the NT driver.
8	Special printing property options like Watermark, N-up, Back to Front, Zoomsmart, and rotate 180 degrees do not show up on the printer pages.	Newer Windows 2K and XP drivers now use a new print driver architecture. This new architecture is not compatibe the PSA firmware 2.3.252 or older. Upgrade the PSA firmware to 2.5.XX and reload the 2K/XP printer driver. Select the option to "Use client side rendering".

Security Problems

If the PSA is joined to a domain, the domain password for the domain controller is included in the backup file. When that PSA backup file is restored, it might be necessary to join the PSA to that domain again because the password might have changed since the backup file was created.

About the Indicator Lights (LEDs)

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

LED Normal Conditions

LED	LED Name	Description
	**Power LED**	ON when power is supplied to the PSA and it is turned on.
	**Network Activity LED**	LIT when there is a connection between the PSA and other network devices. BLINKS when there is network activity between the PSA and other network devices.
	**Disk Activity LED**	ON when there is disk activity on the PSA.
	**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 support.

Frequently Asked Questions

Links within this document:

Configuration

1. **Can I use Web Jetadmin to manage my PSA?**
2. **Does the PSA support bootp or rarp?**
3. **What features on the Properties Page in Network Neighborhood are supported by the PSA?**
4. **Can I use a hyphen in the PSA name?**
5. **Can the PSA integrate into a Windows 2000 environment?**
6. **Can the PSA be configured via TELNET?**
7. **Is the PSA compatible with non-HP print servers?**
8. **The PSA does not show up in Network Neighborhood.**

Printing

1. **Is there a maximum size print job I can send to the PSA?**
2. **How does the PSA work with my existing print spooling strategy?**
3. **What is the Microsoft Point and Print feature and how does it work?**

4. **Can the PSA accept print jobs from UNIX clients?**
5. **Can I print over my network using Novell as the network OS?**
6. **What is the limit on the number of jobs that can be spooled?**
7. **How are print jobs sent to the PSA?**
8. **How are print jobs sent from the PSA to the printer?**
9. **I am trying to print in Landscape mode, Duplex mode, or multiple copies, but the margins are offset.**
10. **Why is the performance so slow when connecting to the PSA via Network Neighborhood or when opening a printer's Property Page in Network Neighborhood?**
11. **Jobs are getting stuck on the PSA for one of my printers.**
12. **HP LaserJet print jobs are missing text of graphics, or are printing garbage.**
13. **The Xerox Document Center 265ST fails to print from the PSA. Print jobs hang in the queue.**

Printer Driver

1. **I can't install a Windows 9x driver for a printer for which I already have a Windows NT, 2K, or XP driver installed.**
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?**
3. **I am going to upgrade to firmware version 2.3.xx. Will the printer drivers have to be initialized again?**
4. **I am trying to add a printer driver to the PSA, but I keep getting an "unauthorized to perform this action" error message.**
5. **I added a Windows 2000 driver to the PSA, but it shows up in the driver list as a Windows NT 4.0 driver.**
6. **I added a Windows XP driver to the PSA, but it shows up in the driver list as a Windows NT 4.0 driver.**
7. **I am having problems with Windows 2000 drivers.**
8. **What does it mean to "Use client side rendering with this driver?"**

Power Outages

1. **What happens if the PSA experiences an unplanned power interruption?**

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

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

Answers

Configuration

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

   Yes, With Web JetAdmin 7.2 (and above), and the downloadable PSA plugins for WJA , you can now configure and manage all of your PSAs that are running on the 2.4.X version of firmware. Features include the ability to schedule backups and firmware upgrades after hours, pushing printer drivers to multiple PSAs simultaneously, and setting traps and alerts for different events.

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

   No, but the PSA does support DHCP.

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

   The PSA 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 PSA 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 PSA's web interface so that the driver can be initialized.
     - New Driver button - the driver can be uploaded to the PSA, but will not be associated with this printer until the administrator uses the PSA'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 check box - not supported
     - Enable printer pooling check box - 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 PSA 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. **Can I use a hyphen in the PSA name?**

   The PSA name (entered on the Microsoft Network Settings page) can contain up to 15 alphanumeric characters. It may also contain dashes (-) and underscores (_). (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 PSA 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.)

5. **Can the PSA integrate into a Windows 2000 environment?**

   The PSA 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.

6. **Can the PSA 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 PSA.

7. **Is the PSA compatible with non-HP print servers?**

   Yes. Any print server that supports LPD should work with the PSA. 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.

8. **The PSA does not show up in Network Neighborhood.**
    - The PSA will install itself in the workgroup called **workgroup**. If there are no PCs in this workgroup, the PSA might not show up in network neighborhood. Microsoft (R) browsing requires a PC in the workgroup to host a browse list. The administrator must change the workgroup name through the Web interface on the PSA.

      To choose another workgroup name for the PSA:
        1. Access the PSA's web interface by typing the **IP address** in a supported browser window.
        2. Click **Microsoft Network Settings page** (under **Networking** in the PSA's web interface).
        3. In the window labeled **Windows NT Domain or Workgroup** change the name to the correct workgroup name.
        4. Click 

.
    - A less common cause is that the Master Browser list (Network Neighborhood) has not yet been

updated with the new PSA. Depending on the size and speed of the network, it may take up to 30 minutes before the network's master browser list gets updated.

- Once this browser list gets updated on the PC that's hosting this list, other PCs on the network will check the browser list and be able to see any new devices on the network via Network Neighborhood.

To find the PSA more quickly:

1. Select **Start**, **Find**, then **Computer**.
2. Type the IP address of the PSA then click **Find Now**.

Printing

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

   There is no limit for a file size that the PSA can handle.

2. **How does the PSA 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 PSA. The second step is "pointing" to the print server or PSA 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 PSA 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 PSA'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 PSA can be used. However, the PSA 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 PSA.

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

   Clients send print jobs via SMB or LPD to the PSA. 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 PSA to the printer?**

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

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

   If you have not done so, upgrade your firmware to version 2.4.x and initialize the driver for that printer.

   Delete the print driver from the computer and delete the port created for it. Install the print driver on the computer as a network printer and browse to the print queue on the PSA.

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

    Several workarounds or solutions are available. Performance issues can be subjective. If printing seems to be slow using the PSA, compare printing through some other means (such as an LPR port on the workstation that prints directly to the printer's IP address). A comparison helps to identify general network, printer, or application problems versus specific print server appliance problems.

    - Upgrade the PSA firmware. Click here to download the most current firmware version for the PSA.
      The latest firmware revision (2.4.x or newer) should fix the following conditions:
      - **Slow printing/performance** - At first printing is fast, afterwards printing seems to be very slow. Turning the print appliance off then on seems to help.
      - **Slow Web Pages** - When attempting to access or make changes to the Web page for the print appliance, the Web pages are very slow.
      - **Locks up** - Print appliance locks up or is unable to print. Turning the print appliance off then on seems to help.
    - Verify the configuration of the DNS server with the network administrator. An incorrectly configured entry on the DNS server for the PSA can cause delays:
      - connecting to a printer in Network Neighborhood
      - delays displaying the **Property** page in Network Neighborhood
      - in printing

      The PSA must have a correctly configured DNS server and the print server appliance requires entries in both the DNS server's forward and reverse lookup tables. If the DNS server is not configured properly, when a computer tries to connect to the print server appliance through Network Neighborhood, it could take one to two minutes while the print server appliance tries to communicate with the DNS server.

      Verify the DNS lookup tables using the following steps:
      At the command prompt of a Windows NT or Windows 2000 computer, type the following commands:
      - The following command verifies an entry for the PSA name: **nslookup printappliancename.domain DNS server IP address** (For example: nslookup mypsa.usa 192.168.100.90)

        If the name lookup does not reply with the PSA's IP address, that means there is no entry for the PSA in the DNS server's Forward Lookup table. The Forward Lookup table is the table the DNS server uses to determine the IP address based on the DNS name.
      - The following command verifies an entry for the PSA's IP address: **nslookup**

printappliance IP Address DNS server IP address (For example: nslookup 192.168.100.80 192.168.100.90)
If the IP address lookup does not reply with the print server appliance name, it means there is no entry for the print server appliance in the DNS server's Reverse Lookup table. The Reverse Lookup table is the table the print server appliance uses to find a system's name based on its IP address.

- Check the PSA's **Microsoft Network Settings page** (under **Networking** in the PSA's web interface). If the **Specified NT Domain Controllers** settings show the host name of the domain server, use the IP address of the server instead. If **Manually specify NT Domain Controllers** is selected, try selecting **Automatically discover NT Domain Controllers** instead.
- As a test, try the following: Check the PSA's **Microsoft Network Settings page** (by opening the PSA's web interface). If the PSA is configured to **Enable NT Domain Authentication** (so that it is joining the domain), re-configure it so that it does not join a domain, then see if printing is faster. If it is consistently faster when not joined to the domain than when it is, be sure that the print server has the most current firmware (use the link above). If it is possible to use the print appliance when it is not joined to a domain, do so temporarily, then contact HP support.
- Check the PSA's **Microsoft Network Settings page** (under **Networking** in the PSA's web interface). If the PSA is configured to use a WINS Server Address, make sure that address is correct. If it is, type the following command at the command prompt of a Windows NT or Windows 2000 computer:
  nbtstat -a PSA_hostname
  (where *PSA_hostname* is the host name of your PSA)
  The response should include three to five entries. If the response is a *host not found* message, there may be a problem with the WINS server. Contact your network administrator for this problem.

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

    The PSA 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 PSA. 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.

12. **HP LaserJet print jobs are missing text of graphics, or are printing garbage.**

    It is strongly recommend that the OSA's firmware be upgraded to latest (2.4.x or newer) to alleviate problems with printer drivers. Click here to download the latest firmware for the PSA.

    Remove the printer driver from the PSA and from any computer printing to that printer. Download the latest printer driver form the HP Web site and install it on the PSA.

13. **The Xerox Document Center 265ST fails to print from the PSA. Print jobs hang in the queue.**

    These Xerox printers use their own print server cards that require the remote name to be **lp** (in lower case only). only). In **Printer Properties**, **Other print server** must be selected. The **Remote Queue Name** must be **lp** (lower case).

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)

   If a Java virtual machine is not installed in the browser, refer to Sun Microsystem's web site or to Microsoft's web site for information about downloading one. 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 2.4.x. Will my printer drivers have to be initialized again?**

   If migrating to firmware version 2.4.x, printers that had been added to earlier firmware versions (2.3.x or before) need to be associated with their driver again. To do this easily, use either the PSA's web interface or Web Jetadmin.

   In the PSA's web interface: go to the **Print Shares** page (on the menu in the web interface under **Print Services**) and then click  (**Drivers**). In the drop-down list, select any other driver and click 

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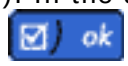
   Then, select the original driver and click 

again.

   In Web Jetadmin under **Driver Management**, access the **Printer Drivers** page and click the **Initialize** button. Select the appropriate driver and click the **Initialize** button again.

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

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

5. **I added a Windows 2000 driver to the PSA, 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 PSA, 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. **I am having problems with Windows 2000 drivers.**

   Problems with Windows 2000 drivers can include:

   - N-up (printing multiple pages in a reduced format on one page)
   - booklet style (format the print job into a printed booklet)
   - watermark (print a watermark on each page of the document)
   - ZoomSmart (scales a letter-sized/A4 document or poster to tabloid/A3, or vice versa)
   - back-to-front (prints the document in reverse order)
   - rotate 180 degrees (rotates the document layout but not the paper)

   If you are having problems with any of these features, first update the firmware. If the problem persists, reinstall the driver and select the "Use client side rendering with this driver" checkbox when selecting the driver to use with the print share. The problem should then be resolved.
8. **What does it mean to "Use client side rendering with this driver"?**

   A new Windows 2K and XP printer driver architecture has been developed where advanced printing features like the following are handled by a print processor in the print server:

   - N-up (printing multiple pages in a reduced format on one page)
   - booklet style (format the print job into a printed booklet)
   - watermark (print a watermark on each page of the document)
   - ZoomSmart (scales a letter-sized/A4 document or poster to tabloid/A3, or vice versa)
   - back-to-front (prints the document in reverse order)
   - rotate 180 degrees (rotates the document layout but not the paper)

   If you intend to use this 2K or XP version of the driver with the PSA, select "Use Client Side rendering".

Power Outages

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

   The PSA 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 PSA.

   Note: The Simple Signaling cable is not included with the PSA 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 PSA when the power fails?**

   The UPS communication cable enables the UPS to signal the PSA 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 PSA experiences an unplanned power interruption?**

After a power outage the PSA will automatically recover and rebuild its settings as necessary. To reduce the chance of data loss, the PSA 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 PSA 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 PSA hard disk. However, the PSA 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 PSA 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.

Contact HP

- General Information
  (The central location on HP's web site for the HP Print Server PSAs and similar products)
- Online Customer Forum
  (Where customers can discuss ideas and suggestions for using the HP PSAs)
- Customer Support
  (Lists all of the support options offered by HP and contact information such as phone numbers and e-mail addresses)
- Warranty and Regulatory Information
  (Includes the product, regulatory information, and GNU public licenses)
- Trademarks and Copyrights
  (Includes all trademarks and copyrights for the HP PSAs)

Warranty, Regulatory, and Licensing Information

Links within this page:

Hewlett-Packard Limited Warranty Statement

HP Product	Duration of Limited Warranty
HP Print Server Appliance 4250 (J7941A)	1 year

1. HP warrants to you, the end-user customer, that HP hardware, accessories, and supplies will be free from defects in materials and workmanship after the date of purchase, for the period of one (1) year. If HP receives notice of such defects during the warranty period, HP will, at its option, either repair or replace products that prove to be defective. Replacement products may be either new or equivalent in performance to new.
2. HP warrants to you that HP software will not fail to execute its programming instructions after the date of purchase, for a period of NINETY (90) DAYS, due to defects in material and workmanship when properly installed and used. If HP receives notice of such defects during the NINETY (90) day period, HP will replace software that does not execute its programming instructions due to such defects.
3. You are responsible for restoring any configuration or data. In no event will HP or its affiliates, subcontractors, or suppliers be liable for any of the following: damages for loss of data, or software restoration; damages relating to Customer's procurement of substitute products or services (i.e., "cost of cover"); or incidental, special or consequential damages (including downtime costs or lost profits).
4. The remedies herein are the customer's sole and exclusive remedies.
5. HP does not warrant that the operation of HP products will be uninterrupted or error free. If HP is unable, within a reasonable time, to repair or replace any product to a condition as warranted, you will be entitled to a refund of the purchase price upon prompt return of the product.
6. HP products may contain remanufactured parts equivalent to new in performance or may have been subject to incidental use.
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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).

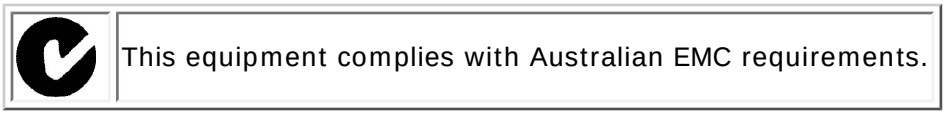
Note: For EU compliance, see the Declaration of Conformity.

Safety Certifications

Products comply with:

- IEC 950: (1991)+A1,A2,A3,A4/EN60950 (1992)+A1,A2,A3,A4
- UL 1950
- CSA 950
- NOM-019-SCFI-1994

Australia



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 4250 (Model Number J7941A)
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, March 4, 2003

Signature of HP Representative

Jill Stevenson, Regulatory Manager

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department TRE, Herrenberger Strasse 130, D-71034 Böblingen (FAX:+49-7031-14-3143).

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