

Total Print Management: Optimizing your Print Environment

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Agenda

- Total Print Management Vision
- Print Infrastructure Design
- Driver Management
- Alerts Best Practices
- Cache Best Practices
- Leveraging Print Server Appliances
 - Authentication and Authorization
 - Web Jetadmin Device Management
- Success Stories
- Next Steps
- Resources

Industry watchers say...

“Printing can consume up to fifteen percent of a company’s annual revenue.”

-Gartner Group

“Companies can lower their printing costs by up to thirty percent.”

-IDC

“Forty-seven percent of calls to our help desk are printer related.”

-IS Manager, Merck

“Ninety percent of all companies do not track printing costs.”

-Buyer’s Laboratory

“IT spends 15% of their time on printing related issues”

-IDC

Common Challenges Managing PrintING



- **P**rinter Driver Problems
- **A**dds, moves, changes (printers, servers, OS)
- **I**nterrupts to business productivity (trouble calls)
- **N**ot being able to “see” the complete printing system through one management console

Impact on employees



**How much time
do your employees
spend on printing
versus doing their
real work?**

Less *real* work gets done

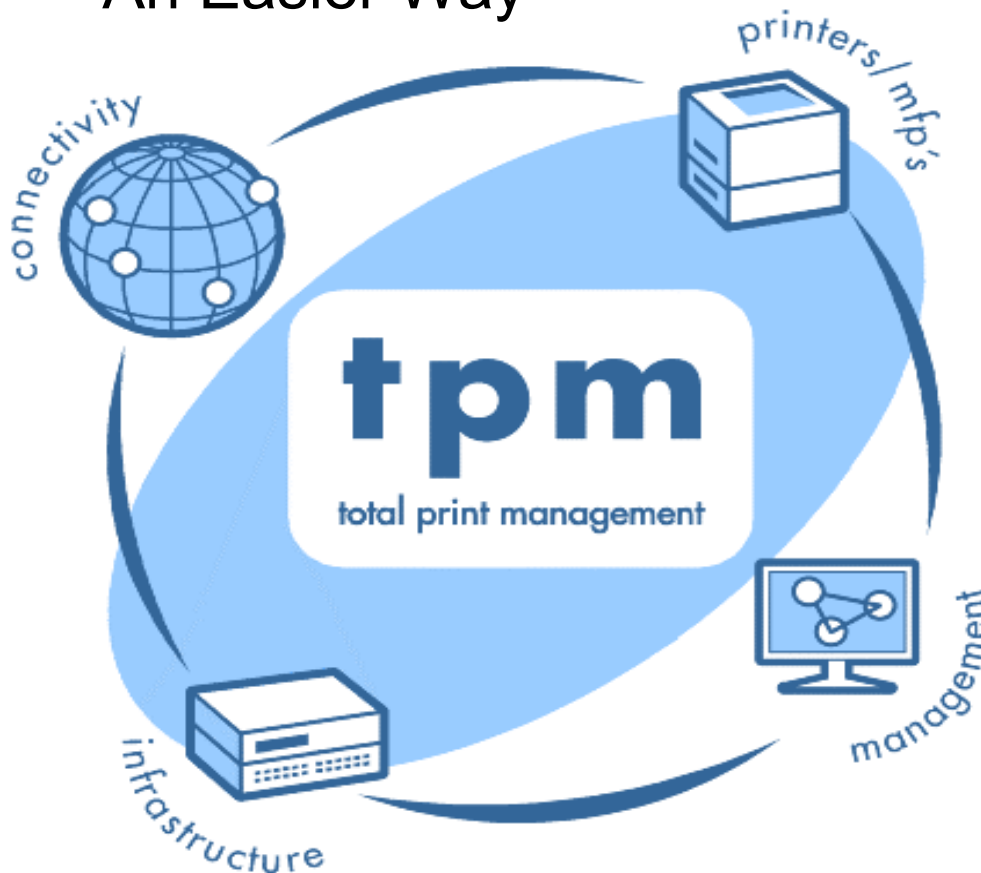
- knowledge workers waste between 15–20% of their time engaged in non-productive publishing activities (A.T. Kearney)
- the average manager spends 3 hours per week looking for lost documents
(The Myth of the Paperless Office)
- saving 10 minutes per day for a \$50,000 employee results in \$830,000 saved per year for every 1,000 workers
(HP analysis)

Output-related TCO categories

Cost category	Cost elements
Apparent	
hardware	Acquisition costs (lease or purchase), hardware upgrades (such as finishing products, memory, hard disks, high capacity input trays, legal trays and print servers)
maintenance/support costs	Maintenance contract costs, warranty/support costs, costs of unused assets, help desk costs
consumables	Paper, toner, drum units, ink cartridges, maintenance kits
Hidden	
network management/administration	Management of the network, network costs (allocated on a % of use), administration, asset management, installation and configuration
Infrastructure	Planning the deployment of hard-copy devices, physical space (costs for space for equipment, property taxes, heating, cooling, energy consumption, etc.), upgrade costs
end-user operations/lack of availability	User training (training users how to use device), user-required maintenance (clearing jams, loading paper, adding toner/ink cartridges, etc.), document delivery (manipulating document before being used such as stapling, collating, etc.), human interaction (retrieving and waiting for document to be produced), installation and configuration, downtime, business cost of lack of availability, cost of using alternate hard-copy solution, cost of poor hard-copy device performance (speed, response time problems, old technology, poor print quality, reprinting, calling help desk, etc.)
software	License costs, support licenses, upgrades, customization of printing systems software or print-enabling software

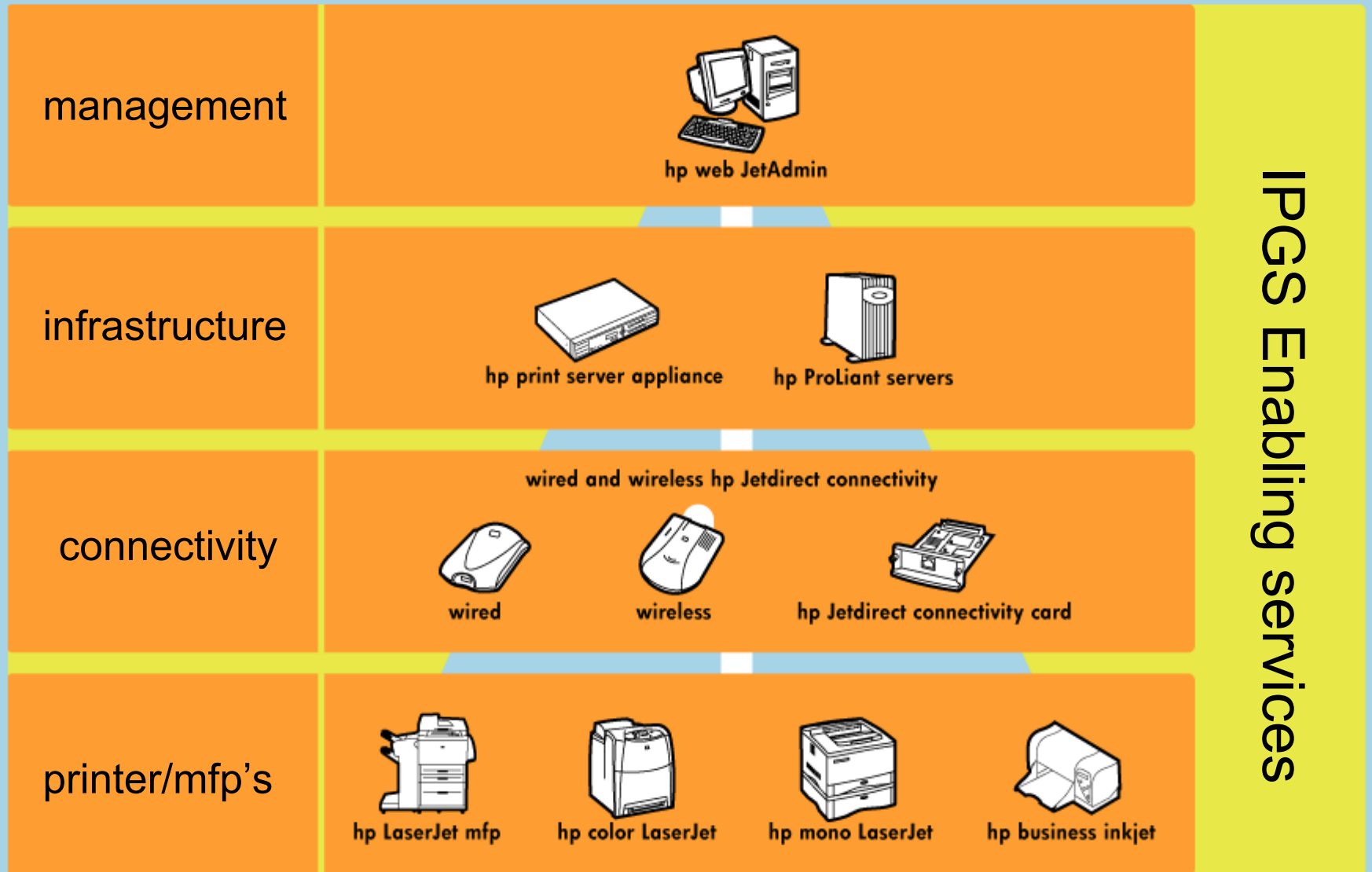
Total Print Management

An Easier Way



- An integrated family of software, hardware and services that provide an easier way for organizations to take control of (and optimize) their entire print network and reduce costs by 10-30%.

HP's Total Print Management



Why Total Print Management?



1. Customers want to lower Printing TCO
2. HP is changing from a “provider of printers” to a “partner in printing”
3. HP is in a unique position to enable customers with the complete print network solution
4. HP knows printers, we know printing applications, and our people can help you.

Print Infrastructure design

- Optimizing performance of print servers within a network environment is primarily affected by two variables: placement within the network, and printer-user load.

- While it would be useful to have some simple equation to determine the number and deployment strategy for your printing solution, each environment is unique and will require a different balance of this solution.

Print Infrastructure design

■ Optimizing Print Performance

Every print environment is unique and the actual load of printers, users, and jobs that can be handled optimally will vary.

Variables that will affect actual print performance include:

- Type and size of print jobs
- Frequency of printing
- Network bandwidth
- Printer throughput
- Number of printers

■ Print Server Performance

Performance of the Print Server is ultimately a function of its throughput. Print jobs are sent to a PSA; and then forwarded onto the appropriate printer(s). The rate at which the Print Server can pass incoming print data to some destination printer is fixed.

Consider the Print Server print spooler as a funnel. Throughput of the Print Server is bounded just as the throughput of any funnel is bounded by the width of the funnel.

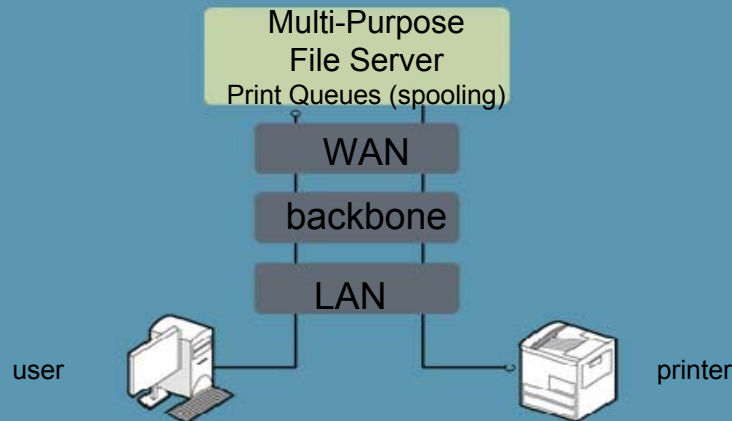
HP's Print Server Appliance 4250 provides print job reliability regardless of the print path traffic situation:

- Although the maximum throughput of the PSA is fixed, If amount of print data entering the PSA exceeds the amount of data leaving the PSA, entering data is temporarily stored.
- These print jobs are buffered within the PSA spool system until they can be printed.
- The PSA will operate smoothly at a maximum throughput but performance may not be optimal.
- To optimize performance, minimize the buffering that takes place on the PSA print spooler. Ensure that the PSA has an appropriate load or balance of printers and users based on print environment performance variables.

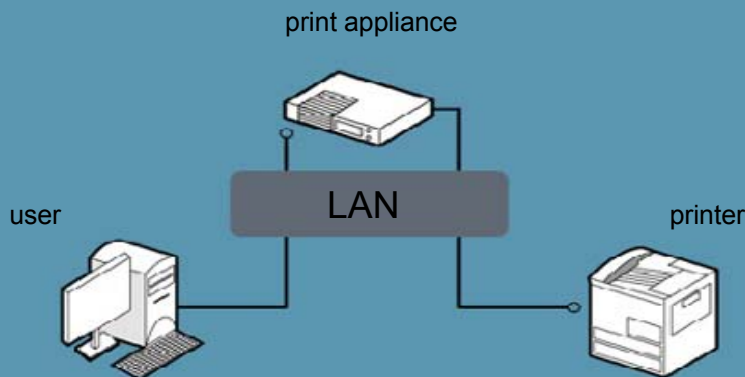
Print Infrastructure design

- For many users, a Print Server Appliance print solution will replace the function of your general print server(s),
- The PSA is deployed under a localized print model rather than the centralized print model commonly used by general purpose servers.
- Under a centralized print model:
 - all print traffic must travel to a central server and then to a given printer.
 - every print job is competing with all other network activities for bandwidth and processing time.
 - the printing functionality of your network is also more vulnerable to single point failures

Print Infrastructure design



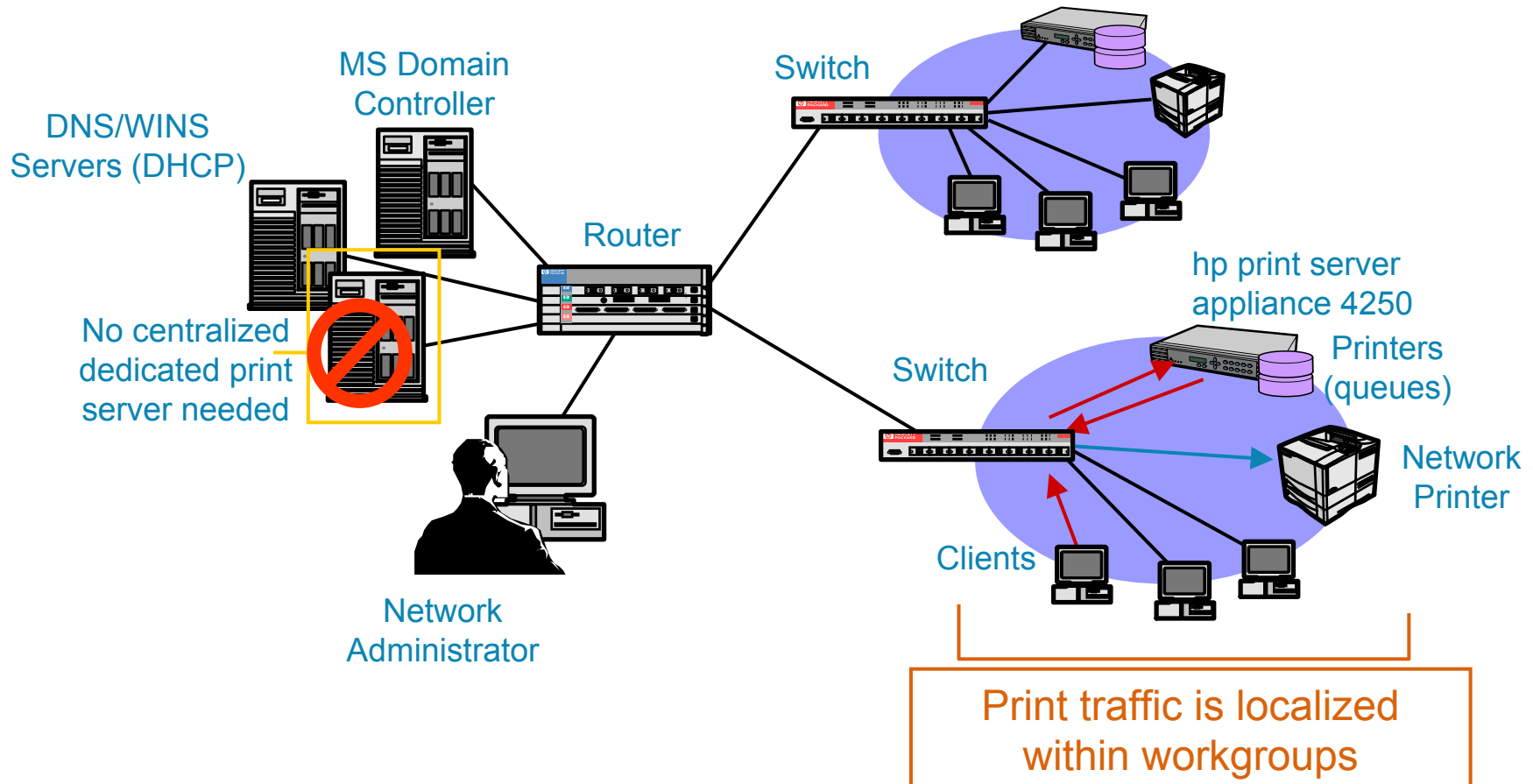
Old Model vs. New Model



- benefits of new model:
- server downtime **not** printing downtime
- fewer help desk calls
- saves time: installation, configuration, management
- simple, one-stop diagnostics
- cost effective (1/3 the cost of generic server)
- efficient and localized print traffic management

Print Infrastructure design

- The print appliance makes it easy to manage print services for enterprise, large, and medium networks.



Alerts Best Practices

Common Uses For Alerts:

- Consumable Management
 - Print administration proactive notification
- Helpdesk Confirmation
 - Eliminating the first step in troubleshooting printer problems (paper jam, paper out, toner out, etc.)
- Control Polling
 - Set polling intervals on monitored devices based on critical need
- Notification
 - Email mechanism for feed into CRM or ESM tool for tracking

Cache Export Best Practices

Common Uses/Views:

- Network Inventory
 - Maintain network printer inventory by network addressing
- Asset Inventory
 - Maintain inventory by name, serial number, asset tag number, etc.
- Printer Usage
 - Total and interim page total tracking for accounting purposes
- JetDirect Version Control
 - Keeping current versions for security purposes, new protocols/functionality, LPD enabled for PSA, etc.

Driver Management

Old Model:

Driver problems are a leading call generator

Users searching for drivers

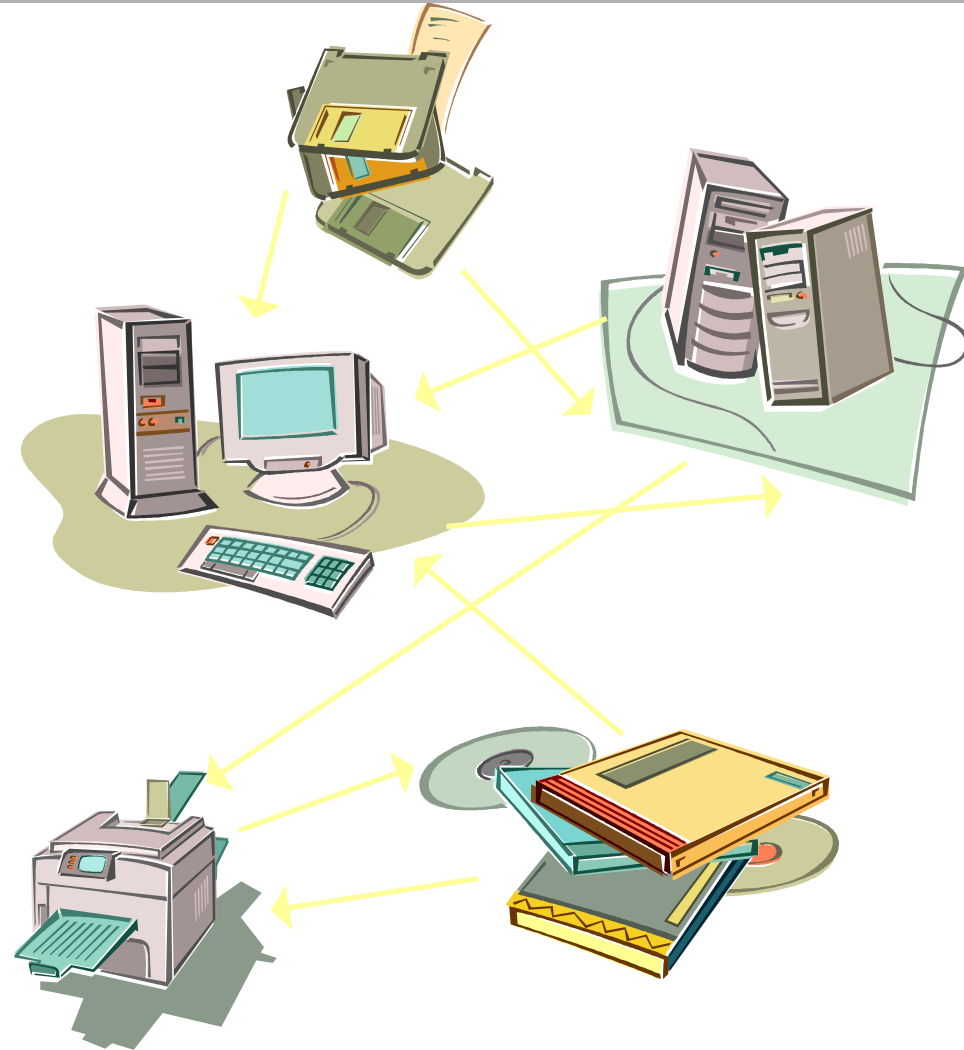
No process or repository

Drivers being updated by hand

Driver distribution by “sneaker-net” or by unsupportable custom scripts

Constant source of frustration

No way of knowing what users have



Driver Management

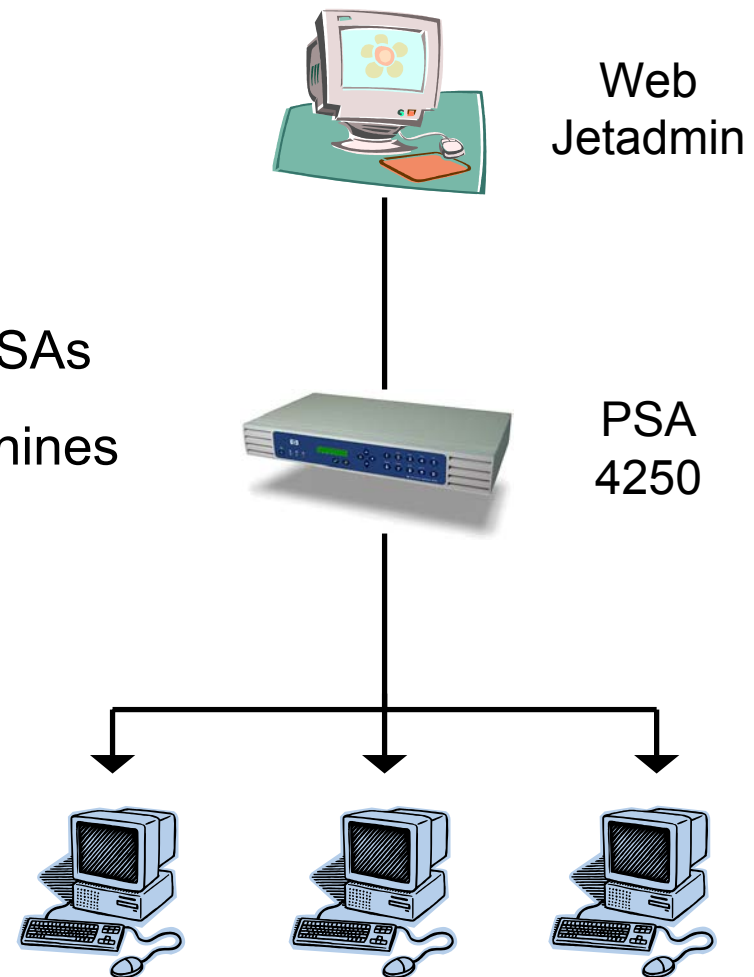
New Model:

Users no longer concerned with drivers

One single repository

One click updates/distributes drivers to PSAs

PSAs subsequently update all client machines



PSA Review

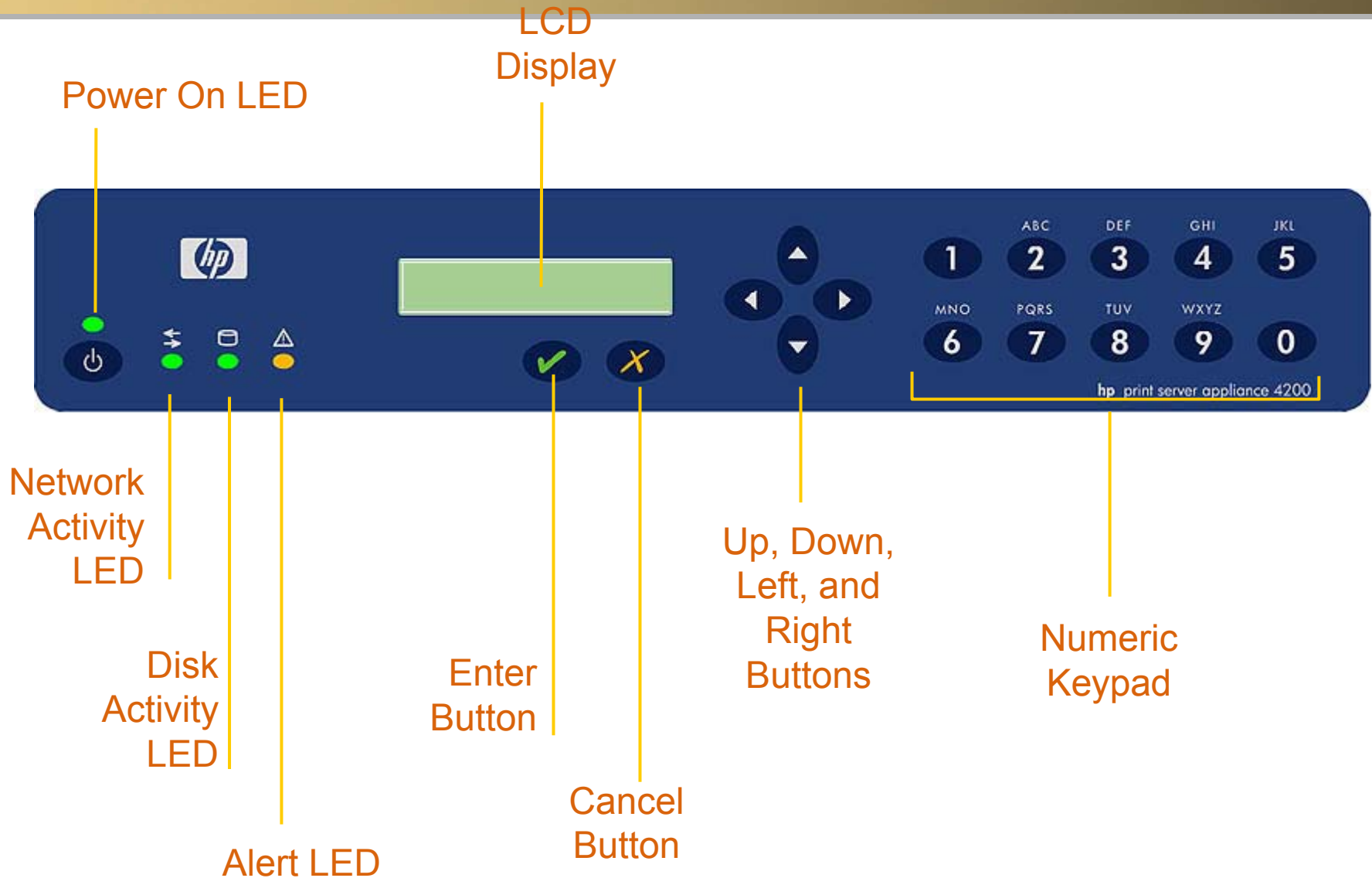
- A state-of-the-art device for managing and monitoring printing over a network
- Improves the reliability and efficiency of the network
- Improves the reliability and efficiency of network print services
- Simplifies print job management
 - Consolidates management of print queues
 - Localizes print traffic to client sites
 - Optimizes network printing performance
 - Increases user productivity
- Easy to install and configure
- No separate or recurring OS licensing costs



Benefits Review

- Increases file server and network performance
- Increases printing performance
- Reduces calls to the help desk
- Transparent to the user
- Easy to pre-configure at a central site
- Can be managed through a web interface
- Keeps printing traffic local to the client
- Reduces breadth of spooler failures
- Increases client control over print jobs

Control Panel Buttons and Lights



WJA Review

The screenshot displays the HP iNvent Device Management web interface. On the left is a navigation pane with a tree view. The 'PSA Management' folder is circled in red. The main area shows a 'Device List' table with columns for Device Model, Hardware Address, Port, IP Address, and IPX Name. The table contains 8 rows, with the first row highlighted in blue.

Navigation Pane:

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Multiple Device Configuration
 - Printer Firmware Update
 - Jetdirect Firmware Update
 - Alerts
 - PSA Management (circled in red)
 - PSA Backup
 - PSA Restore
 - PSA FW Update
 - PSA FW Update
 - FW Update Schedules
 - FW Update Status
 - Help

Device List Table:

Device Model	Hardware Address	Port	IP Address	IPX Name
HP 9100C Digital Sender	0060B0042F66	1	192.168.0.70	NPI042F66
HP Color LaserJet 5500	0030C1C52286	1	192.168.0.67	NPIC52286
HP LaserJet 2100	0800097FB44D	1	192.0.0.192	
HP LaserJet 5M	0060B03994BD	1	192.168.0.54	NPI3994BD
HP LaserJet 6MP	0010830B2781	1	192.168.0.75	NPI0B2781
4000 HP Print Server Appliance 4	0030C1AC231B	1	192.168.0.55	
Unknown	0800097FB44D	3	192.0.0.192	
Unknown	0800097FB44D	2	192.0.0.192	

Displaying 8 of 8 Possible Devices

Firmware Update



Navigation

Device Management

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Help

At a Glance

Quick Device Find

Last Discovery Completed

Monitored Devices

PSA Firmware Update - Options

PSA FW Update



Firmware Update Source ?

Firmware File:

Schedule Firmware Update ?

Update Now

Schedule Update for

March 30 2003 12 : 35 PM

Email Results to: (optional) ?

Email Address:

PSA 4250: New Features

- Driver Management via WJA
- Installation & Configuration via WJA
- FW Upgrade via WJA
- Migration Tools via WJA.
- Backup/Restore via WJA
- Printer Share Management via WJA
- PSA status visible to WJA
- PSA Alerts in WJA
- Web UI and Configuration validation
- PSA SNMP Agent
- SNMP Traps from PSA
- Security
- Performance Improvements

Authentication and Authorization Topics

- Authentication Between Web Browser and PSA
 - PSA Administrator Accounts
 - Security Between Browser and PSA
 - Domain Security
- Authentication Between WJA and PSA
 - Administrator Accounts
 - Single administrator
 - Multiple administrators
 - Windows Domain Groups
 - Profiles

Authentication Between Web Browser and PSA

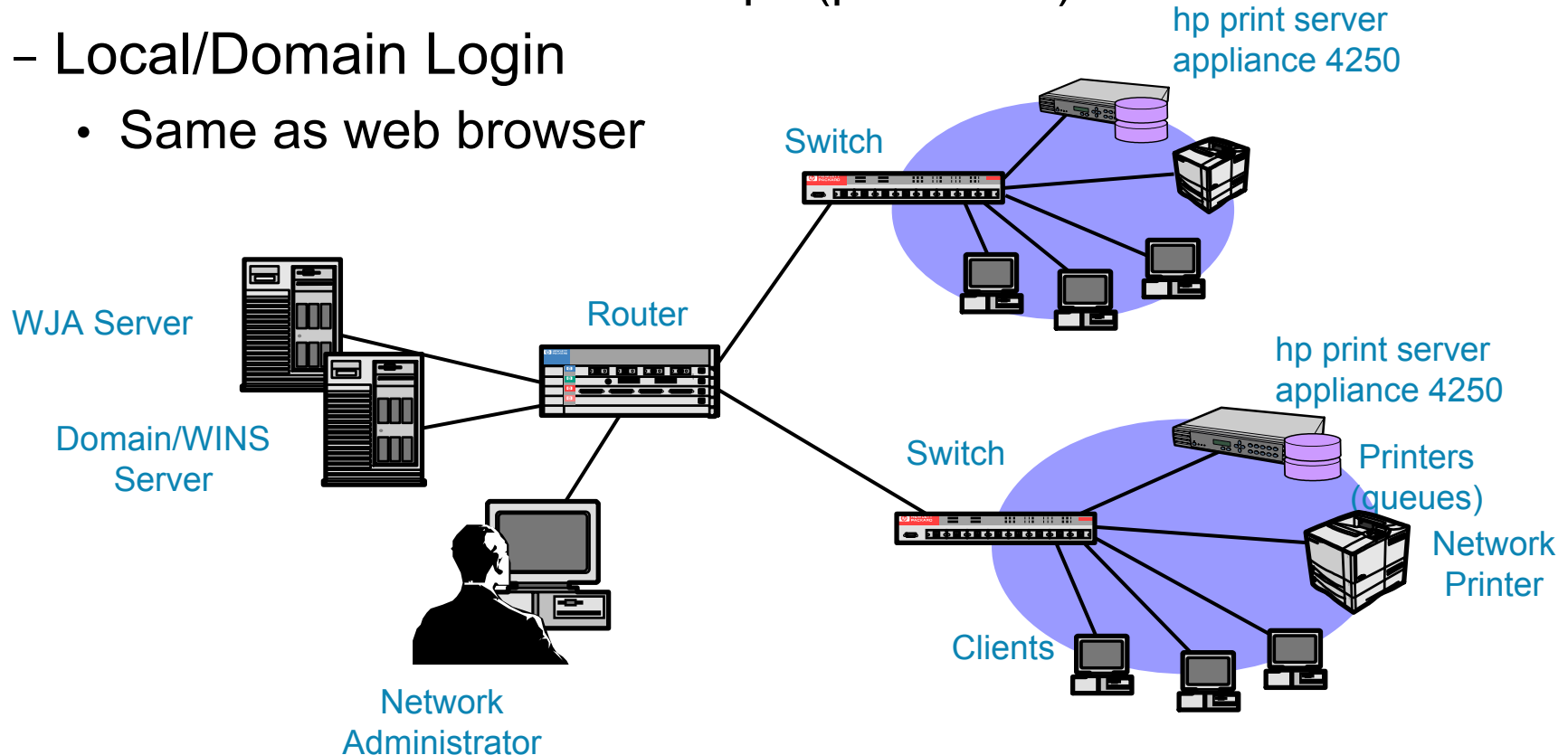
- PSA Administrator Accounts

- Local
PSA Specific
- Domain
Existing MS Domain Users and Groups

The screenshot displays the HP print server appliance web interface. The top navigation bar includes the HP logo, the text "hp print server appliance", and an "Online Manual" link. A left-hand sidebar menu is organized into categories: PRINT SERVICES (Overview, Print Shares, Driver Management), NETWORKING (Date and Time, TCP/IP and DNS, Microsoft Network, LPD Printing, SNMP), SECURITY (Administrators, SSL Certificate), MAINTENANCE (Backup, Restore, Upgrade, Restart), and DIAGNOSTICS (System Summary, Diagnostic Report, Event Log). The main content area is titled "Administrators" and is divided into two panels. The "Local Administrators:" panel contains a list box with the entries "admin", "chris", "clane", and "jbourbank", and buttons for "+ new", "edit", and "X delete". The "Domain Administrators:" panel contains a list box with the entry "PROJECTDOMAIN\Domain Admins", and buttons for "+ add" and "- remove". At the bottom right of the main content area are "refresh" and "help" buttons.

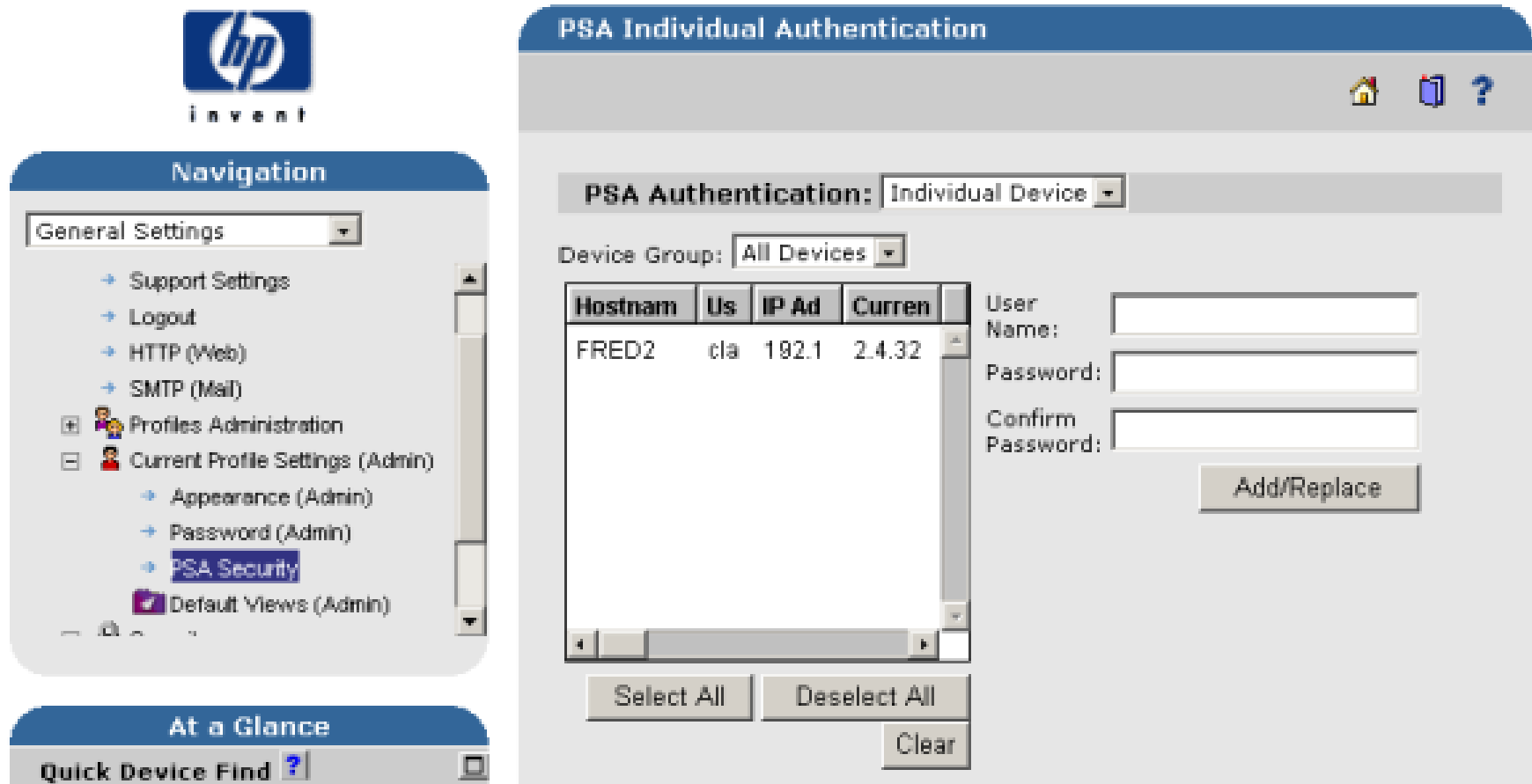
Authentication Between WJA and PSA

- Authenticates Same as Web Browser
 - SSL
 - Most traffic occurs over https (port 8443)
 - Local/Domain Login
 - Same as web browser



WJA Local Authentication

If WJA is setup to authenticate using Profiles, individual local PSA accounts must be configured.



The screenshot shows the HP iPrint administration interface. On the left is a navigation pane with the HP logo and 'invent' text. The 'Navigation' section includes a 'General Settings' dropdown and a list of menu items: Support Settings, Logout, HTTP (Web), SMTP (Mail), Profiles Administration, Current Profile Settings (Admin) (with sub-items Appearance (Admin), Password (Admin), and PSA Security), and Default Views (Admin). Below this is an 'At a Glance' section with a 'Quick Device Find' link.

The main content area is titled 'PSA Individual Authentication'. It features a 'PSA Authentication:' dropdown menu set to 'Individual Device' and a 'Device Group:' dropdown menu set to 'All Devices'. Below these is a table with the following data:

Hostnam	Us	IP Ad	Curren
FRED2	cla	192.1	2.4.32

To the right of the table are three input fields for 'User Name:', 'Password:', and 'Confirm Password:', followed by an 'Add/Replace' button. Below the table are 'Select All', 'Deselect All', and 'Clear' buttons.

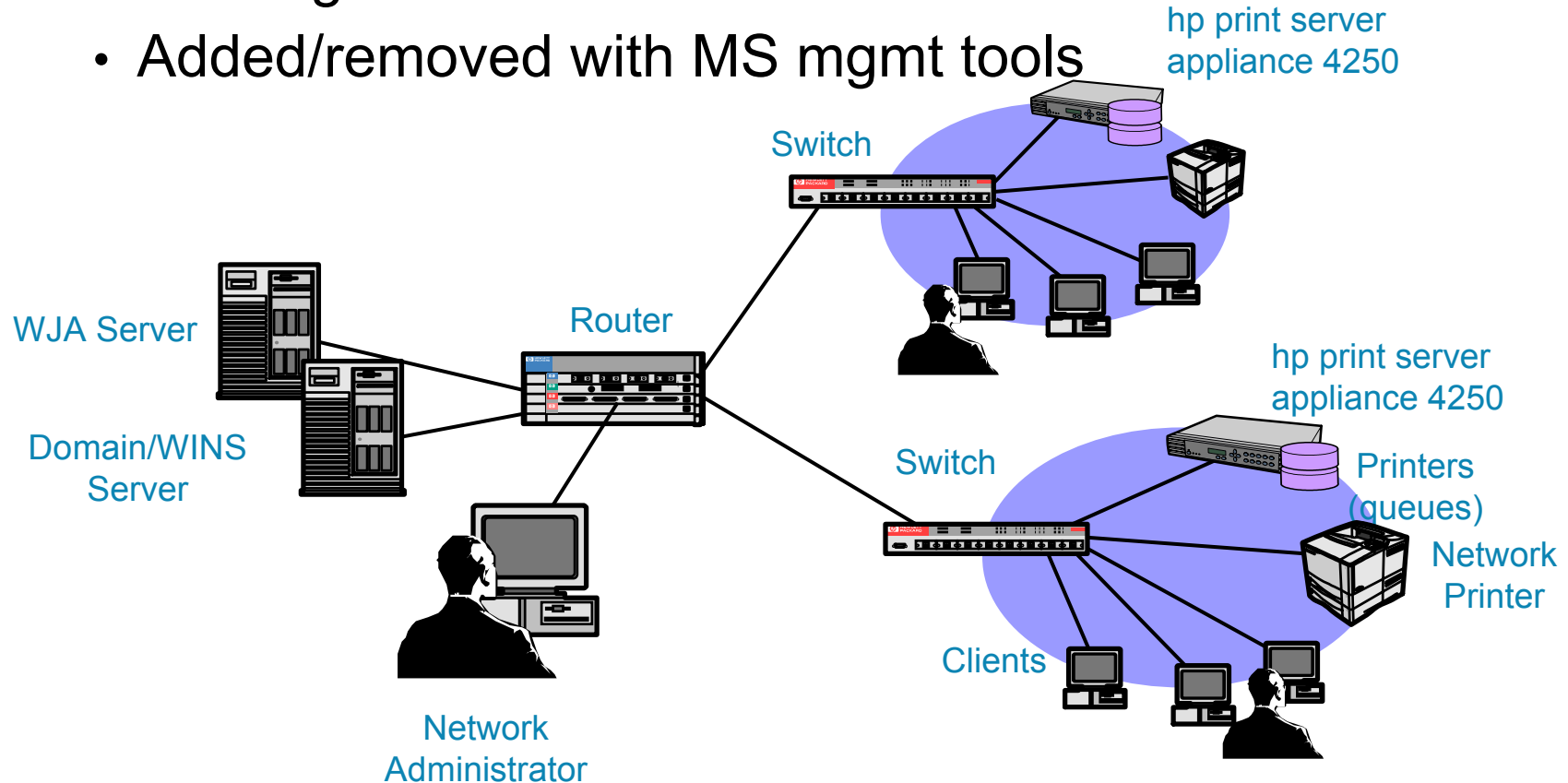
WJA Domain Authentication

- If WJA setup for domain login, the PSA will be accessed with those credentials

The screenshot displays the HP Web Jetadmin Administration console. On the left is a navigation pane with the HP logo and 'invent' text. The 'Navigation' section includes a dropdown menu set to 'General Settings' and a tree view with categories like 'General Settings', 'Profiles: Administration', and 'Current Profile Settings (Admin)'. The main content area is titled 'Authentication Method' and features a blue header bar. A note states: 'Note: To enable security features, an Admin password must be set.' Below this, the 'Authentication Method' is set to 'NT Domain/User'. A section titled 'Associate NT Domain Users and Groups with HP Web Jetadmin Profiles' contains a warning: 'WARNING: Until at least one NT domain user is associated with the Admin profile, all authenticated NT users will have Admin rights.' The 'Profile to Edit' is set to 'Admin'. There are two 'Select New Domain' dropdown menus, both showing 'PROJECTDOMAIN'. An 'Enter User or Group Name' field contains 'Chris'. To the right, a list titled 'Users Associated with this Profile' shows 'PROJECTDOMAIN\Chris'. Buttons for 'Add User >', '< Remove User', and 'Apply' are visible.

Multiple Administrators

- Windows Domain Groups
 - Flexible configuration
 - Existing user accounts
 - Added/removed with MS mgmt tools



Log File

Event Log (filtered log)

<u>Timestamp</u>	<u>Level</u>	<u>Type</u>	<u>ID</u>	<u>Message</u>
				Error: Undetermined error.
May 1 08:42:23	⚠	ERR	SEC 220	Authentication failed - user authentication via Microsoft networking was unsuccessful. User name: GRAHAMS-PC\Graham. Error: Undetermined error.
Apr 30 20:43:05	⚠	ERR	SEC 218	Authorization failed - local account. User name: randy.
Apr 30 20:42:42	⚠	ERR	SEC 217	Authentication failed. User name: RANDY.PAVILION.PROJECTDOMAIN. Domain name: PROJECTDOMAIN.
Apr 30 20:42:01	⚠	ERR	SEC 219	Authorization failed - domain account. User name: randy. Domain name: PROJECTDOMAIN\randy.
Apr 30 20:42:00	⚠	ERR	SEC 219	Authorization failed - domain account. User name: randy. Domain name: PROJECTDOMAIN\randy.
Apr 30 20:41:05	⚠	ERR	SEC 219	Authorization failed - domain account. User name: randy. Domain name: PROJECTDOMAIN\randy.
Apr 30 20:41:04	⚠	ERR	SEC 219	Authorization failed - domain account. User name: randy. Domain name: PROJECTDOMAIN\randy.
Apr 30 20:40:07	⚠	ERR	SEC 219	Authorization failed - domain account. User name: randy. Domain name: PROJECTDOMAIN\randy.
Apr 30 20:40:07	⚠	ERR	SEC 219	Authorization failed - domain account. User name: randy. Domain name: PROJECTDOMAIN\randy.
Apr 30 20:39:00	⚠	ERR	SEC 219	Authorization failed - domain account. User name: randy. Domain name: PROJECTDOMAIN\randy. <i>This message was repeated 4 times.</i>

PSA Features Available in WJA

- Migration Tools
- PSA status visible to WJA
- Installation & Configuration
- Printer Share Management
- Driver Management
- FW Upgrade
- Backup/Restore

WJA Plug-in

- Configure, manage and monitor PSA4250, PSA4200 and JD4000
 - Automated migration of printers from Microsoft Windows servers
 - Automated migration of existing printer connections on Microsoft Windows clients
 - Auto-discovery of print server appliances
 - Batch configuration of settings
 - Remote print path creation
 - Remote print driver management
 - Central device status reporting
 - Scheduled batch firmware upgrades
 - Scheduled backup/restore

WJA - Migration Plug-in



Navigation

Product Update

- Product Update
 - **Install**
 - Remove
 - Languages
 - Supported Devices

At a Glance

Quick Device Find ?

Last Discovery Completed ?

No Discovery Has Been Finished

Monitored Devices ?

0 Monitored Devices

HP Web Jetadmin Update



Available Updates:

Action	Description	Package	Version	Size (KB)	
New Install	Linux HP Remote Discovery Agent	wjarda_linux	4.1.2305	5458 KB	
New Install	HP IP Address Display Plug-in	hpjcpd	2.0.0008	592 KB	
New Install	HP Web Jetadmin System V Print Path Plu	hpjppssv	4.1.2305	1326 KB	
New Install	HP Web JetAdmin - Migration Tools	hpmigtools	1.0.2304	985 KB	
New Install	HP Device Storage Manager Plug-in	hpjmsm	2.1	819 KB	
New Install	HP Web Jetadmin Linux Print Path Plugin	hpjppslinux	4.2.2305	8 KB	

6 Packages Available

Next >

Select file to upload:

Browse...

Upload

WJA - PSA Plug-ins



Navigation

Product Update

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At a Glance

Quick Device Find ?

Last Discovery Completed ?

No Discovery Has Been Finished

Monitored Devices ?

0 Monitored Devices

HP Web Jetadmin Update



Available Updates:

Action	Description	Package	Version	Size (KB)
New Install	HP Web JetAdmin - PSA Device Manage	hpjppspsa	1.0.2304	4510 KB
New Install	HP Web JetAdmin - PSA Driver Managem	hpjdrvngmt	1.0.2304	4510 KB
New Install	HP IP Address Display Plug-in	hpjcpd	2.0.0008	592 KB
New Install	HP Web Jetadmin System V Print Path Plu	hpjppssv	4.1.2305	1326 KB
New Install	HP Web JetAdmin - PSA Device Manage	hpjpsamgmt	1.0.2304	4510 KB
New Install	Linux HP Remote Discovery Agent	wjarda_linux	4.1.2305	5458 KB
New Install	HP Web JetAdmin - Migration Tools	hpjmigtools	1.0.2304	985 KB
New Install	HP Web JetAdmin - PSA Common	hpjpsacomm	1.0.2304	4510 KB
New Install	HP Device Storage Manager Plug-in	hpjmsm	2.1	819 KB

11 Packages Available

Next >

Select file to upload:

Browse...

Upload

WJA - PSA Plug-ins (con't)



Navigation

Product Update

- Product Update
 - Install
 - Remove
 - Languages
 - Supported Devices

At a Glance

Quick Device Find ?

Last Discovery Completed ?

No Discovery Has Been Finished

Monitored Devices ?

0 Monitored Devices

HP Web Jetadmin Update



Available Updates:

Action	Description	Package	Version	Size (KB)
New Install	HP IP Address Display Plug-in	hpjcpd	2.0.0008	592 KB
New Install	HP Web Jetadmin System V Print Path Plu	hpjppssv	4.1.2305	1326 KB
New Install	HP Web JetAdmin - PSA Device Manage	hpjpsamgmt	1.0.2304	4510 KB
New Install	Linux HP Remote Discovery Agent	wjarda_linux	4.1.2305	5458 KB
New Install	HP Web JetAdmin - Migration Tools	hpjmigtools	1.0.2304	985 KB
New Install	HP Web JetAdmin - PSA Common	hpjpsacomm	1.0.2304	4510 KB
New Install	HP Device Storage Manager Plug-in	hpjmsm	2.1	819 KB
New Install	HP Web JetAdmin - IAdd	hpjiadd	1.0.2304	4510 KB
New Install	HP Web Jetadmin Linux Print Path Plugin	hpjppslinux	4.2.2305	8 KB

11 Packages Available

Next >

Select file to upload:

Browse...

Upload

WJA - Plug-ins Selected to Install



Navigation

Product Update

- Product Update
 - Install
 - Remove
 - Languages
 - Supported Devices

At a Glance

Quick Device Find ?

Last Discovery Completed ?

No Discovery Has Been Finished

Monitored Devices ?

@ Monitored Devices

HP Web Jetadmin Update



The following packages will be updated:

Action	Description	Package	Version	Size (KB)	
New Install	HP Web JetAdmin - PSA Driver Management	hpjdrvngmt	1.0.2304	4510 KB	▲
New Install	HP Web JetAdmin - PSA Device Management 1	hpjppspsa	1.0.2304	4510 KB	
New Install	HP Web JetAdmin - PSA Device Management 2	hpjpsamgmt	1.0.2304	4510 KB	
New Install	HP Web JetAdmin - PSA Common	hpjpsacommo	1.0.2304	4510 KB	
New Install	HP Web JetAdmin - Migration Tools	hpjmigtools	1.0.2304	985 KB	
New Install	HP Web JetAdmin - IAdd	hpjiadd	1.0.2304	4510 KB	

6 Packages Selected for Update

Next >

WJA - Plug-ins Successfully Installed



Navigation

Product Update

- Product Update
 - **Install**
 - Remove
 - Languages
 - Supported Devices

At a Glance

Quick Device Find ?

Last Discovery Completed ?

No Discovery Has Been Finished

Monitored Devices ?

0 Monitored Devices

Install Results:

Install Results:

Result	Description	Package	Version	File Name
Success	HP Web JetAdmin - PSA Driver Managem	hpjdrvngmt	1.0.2304	
Success	HP Web JetAdmin - PSA Device Managem	hpjpppsa	1.0.2304	
Success	HP Web JetAdmin - PSA Device Managem	hpjpsamgmt	1.0.2304	
Success	HP Web JetAdmin - PSA Common	hpjpsacomm	1.0.2304	
Success	HP Web JetAdmin - Migration Tools	hpjmgtools	1.0.2304	
Success	HP Web JetAdmin - IAdd	hpjiadd	1.0.2304	

6 Packages Installed

Migration Tools

invent

Navigation

Device Management

- [-] Device Management
 - [+] Device Lists
 - [+] Device Groups
 - [+] Device Cache
 - [+] Management Settings
 - [+] Tools
 - [+] Help

At a Glance

Quick Device Find ?

Last Discovery Completed ?

Monitored Devices ?

PSA Migration Tools

Migration Tools Go

Welcome to PSA Migration Tools (for HP Print Server Appliances)

These tools help you move print services from your Windows-based servers to your HP Print Server Appliances. The Migration Tools are composed of two different administrative tools that make printer migration fast and easy: a Server Migration Tool and a Client Migration Tool.

Server Migration Tool

Copies print shares from your existing Windows-based servers onto your HP Print Server Appliances. This tool must be run at least once before running the Client Migration Tool.

Run Server Migration Tool

Client Migration Tool

Helps you redirect the printers on end-user PCs to the newly-created print shares on your HP Print Server Appliances. There are three different methods of client migration:

1. Email
2. Login Scripts
3. Windows Script Host

Run Client Migration Tool

Server Migration Tool

The screenshot displays the HP Server Migration Tool interface. On the left is a navigation pane with the HP logo and 'invent' text. Below it is a 'Navigation' section with a dropdown menu set to 'Print Queue Management'. A tree view shows folders for 'Print Queue Management', 'PSA Migration Tools', 'Print Server Software Management', and 'Help'. The 'PSA Migration Tools' folder is expanded, showing 'Migration Tools' (highlighted) and 'Migration Log File'. Below the navigation pane is an 'At a Glance' section with three items: 'Quick Device Find', 'Last Discovery Completed', and 'Monitored Devices', each with a question mark icon and a checkbox.

The main window is titled 'PSA Migration Tools' and shows 'Server Migration Tool (Step 2 of 4)'. The primary instruction is 'Select Print Shares To Migrate'. Below this, there is a dropdown menu for 'Available Print Shares in Domain' set to 'PROJECTDOMAIN'. Two tables are shown side-by-side:

Windows Se	Print Share
NOTEBOOK	No Shares
PAVILION	
TECH-ED	

Between the two tables are navigation arrows: a right-pointing arrow (>>) and a left-pointing arrow (<<).

Print Sh	Windo	Dom
No Shar		

At the bottom of the main window, there is a horizontal scrollbar.

Authentication



Navigation

Device Management

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Help

At a Glance

Quick Device Find ?

Last Discovery Completed ?

Monitored Devices ?

PSA Migration Tools

Migration Tools Go

Authentication Required
Enter the user name, domain, and password for an administrator account that has rights to both FRED2 and the Web Jetadmin server 192.168.0.93.

User name:

Domain:

Password:

Save this user name and password for the duration of this browser session.

OK Cancel

Server Migration Tool

The screenshot shows the HP Invent Server Migration Tool interface. On the left is a navigation pane with the HP logo and 'invent' text. The 'Navigation' section includes a dropdown for 'Print Queue Management' and a tree view with folders for 'Print Queue Management', 'PSA Migration Tools', and 'Print Server Software Management'. The 'PSA Migration Tools' folder is expanded, showing 'Migration Tools' (highlighted) and 'Migration Log File'. Below navigation is an 'At a Glance' section with three items: 'Quick Device Find', 'Last Discovery Completed', and 'Monitored Devices', each with a question mark icon and a checkbox.

The main window is titled 'PSA Migration Tools' and 'Server Migration Tool (Step 3 of 4)'. It features a 'Specify Map File' section with the following text: 'Information about this server migration will be stored in a map file. Afterwards, the map file can be used with the Client Migration Tool to migrate client PCs (end-users) to the newly created print shares on the PSA: **FRED2**'. Below this, it says 'Specify the map file where information about this server migration will be stored.' There is a 'Map File:' label followed by a dropdown menu showing 'printerMigration', and three buttons: 'View File', 'New File', and 'Delete File'. At the bottom, 'Map file options:' are listed with two radio buttons: 'Add to the file (keep all previous migration info in the map file)' (selected) and 'Overwrite the file (delete all previous migration info from the map file)'.

Server Migration Tool

The screenshot displays the HP Invent Server Migration Tool interface. On the left is a navigation pane with the HP logo and 'invent' text. The 'Navigation' section includes a dropdown menu for 'Print Queue Management' and a tree view with folders for 'Print Queue Management', 'PSA Migration Tools', and 'Print Server Software Management'. The 'PSA Migration Tools' folder is expanded, showing 'Migration Tools' (highlighted) and 'Migration Log File'. Below this is an 'At a Glance' section with three items: 'Quick Device Find', 'Last Discovery Completed', and 'Monitored Devices', each with a help icon.

The main window is titled 'PSA Migration Tools' and shows 'Server Migration Tool (Step 4 of 4)'. It contains a 'Summary' section with the following text:

You have selected 1 print shares to be migrated (copied) to PSA FRED2. To migrate (copy) the print shares now, click Finish.

NOTE: The existing print shares on your Windows-based servers will not be deleted.

Below the text is a table with the following data:

Windows Shar	Windows Serv	Domain	PSA Share Na
HPLaserJ	NOTEBOOK	PROJECTDOM	HPLaserJ

Client Migration - Step 1



Navigation

Device Management

- [-] Device Management
 - [+] Device Lists
 - [+] Device Groups
 - [+] Device Cache
 - [+] Management Settings
 - [+] Tools
 - [+] Help

At a Glance

PSA Migration Tools

Migration Tools



Client Migration Tool (Step 1)

Select Migration Method

This tool helps you migrate client PCs (end-user PCs) to the newly created print shares on your PSA. A script will be created to migrate client PC printers. When the migration script is run on a client PC, it redirects the client's printers to print through the PSA by re-mapping the PC's printer paths.

Select the migration method you want to use for your client PCs.

Email

Creates a client migration batch file (.bat) and sends a notification email to the end-users you specify. The email message contains a link to a web page from which the end-users (clients) can access and run the migration batch file.


Login Script

Creates a client migration batch file (.bat) that you can use in a login script environment.

Windows Script Host

Creates a client migration script file (.vbs) that you can use in a Windows Script Host environment.

Login Script – Step 2



Navigation

Device Management

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Help

At a Glance

Quick Device Find ?

Go

Last Discovery Completed ?

Monitored Devices ?

PSA Migration Tools

Migration Tools Go

Client Migration Tool (Step 2 of 2)

Login Script Info

Specify a name for this migration and select the map file that will be used.

Migration Name: ClientPrinterMigration_Mar_30_2003

Map File: printerMigration View File

Options: Silent client migration

End-User Language: English

Specify the location where client migration files will be saved.

Network Share Path:

Example: \\servername\share

NOTE: All end-users for this migration must have "Read" access to the specified path.

< Back Finish Cancel

Authentication



Navigation

Device Management

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Help

At a Glance

Quick Device Find ?

Last Discovery Completed ?

Monitored Devices ?

PSA Migration Tools

Migration Tools Go

Authentication Required
Enter the user name, domain, and password for an administrator account that has rights to both FRED2 and the Web Jetadmin server 192.168.0.93.

User name:

Domain:

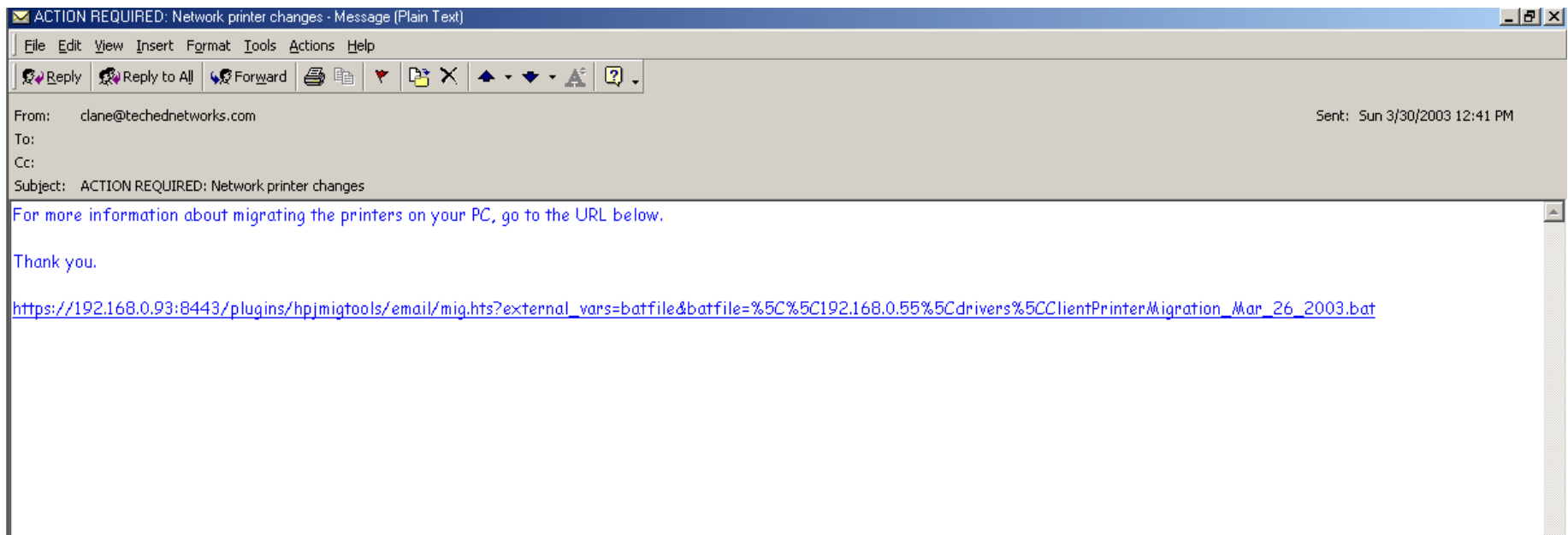
Password:

Save this user name and password for the duration of this browser session.

OK Cancel

E-Mail Migration

- This is an example of the e-mail message sent out if the e-mail migration method was used.



Device Management



Status



Navigation

Device Management

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Help

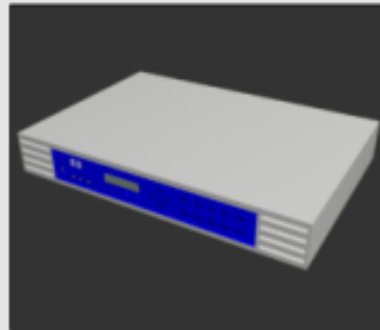
At a Glance

Quick Device Find ?

Last Discovery Completed
Monitored Devices ?

Device Status: HP Print Server Appliance 4000 - FRED2

Status



Online

Device Properties

4000



Model: HP Print Server Appliance 4000

IP Hostname: FRED2

IP Address: 192.168.0.55

Hardware Address: 0030C1AC231B

System Contact:

[Return to Device List](#)

WJA Diagnostic Page

hp invent

Navigation

Device Management

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Help

At a Glance

Quick Device Find ?

Last Discovery Completed ?

Monitored Devices ?

Device Diagnostics - HP Print Server Appliance 4000 - 192.168.0.55

Diagnostics Configuration Diagnostics Device Web Page Alerts Driver Management Migration Tools Print Share Management PSA Backup PSA Restore PSA FW Update

device

general

device	HP Print Server Appliance 4000
device ID string	MDL:hp print server appliance 4000
device status	Online
system contact	

network interface

general

description	MDL:hp print server appliance Host:HPHAC231B VER:2.4.305 (beta) HW:Selftest 1.3 MDLNUM:4000
hardware address	0030C1AC231B
system up time	18 Day(s), 19 Hour(s), 26 Minute(s), 9 Second(s)

network packets

total packets received	304
unicast packets received	304
bad packets received	0
unicast packets	304

Device Configuration

The screenshot displays the HP Device Configuration web interface for an HP Print Server Appliance 4000. The interface is organized into several sections:

- Navigation:** Located on the left, it includes a search bar for "Device Management" and a tree view with the following items: Device Management (selected), Device Lists, Device Groups, Device Cache, Management Settings, Tools, and Help.
- At a Glance:** A summary section at the bottom left containing "Quick Device Find" (with a search input field), "Last Discovery Completed" (with a help icon and a checkbox), and "Monitored Devices" (with a help icon and a checkbox).
- Configuration Categories:** A central panel with a "Configuration" dropdown and a "Go" button. It lists "Quick Set", "Device", "Network", and "Security" categories. An "Edit Quick Set" button with a help icon is also present.
- System Settings:** The right-hand side of the page contains various configuration fields:
 - System Date:** Includes dropdowns for Day (30), Month (3), and Year (2003).
 - System Time:** Includes a time input field (12:07:45) and a dropdown for AM/PM (PM).
 - Time Zone:** A dropdown menu set to "Pacific Time (US & Canada) (GMT-08:00)".
 - System Contact:** An empty text input field.
 - Restart/Shutdown:** Radio buttons for "None" (selected), "Restart", and "Shutdown".
- Next Step:** A horizontal bar at the bottom right with an "Apply" button.

Batch Configuration

The screenshot displays the HP Device List application window. At the top, there is a 'Device List' title bar. Below it is a 'Toolbox' section with controls for 'View' (set to 'Default View'), 'Filter' (set to 'No Applied Filter'), 'Device Tools' (set to 'Choose Action...'), and 'Device Cache Tools' (set to 'Choose Action...').

The main area contains a table of devices with the following columns: Device Model, Hardware Address, Port, and IP. The table lists several HP devices, including HP 9100C Digital Send, HP Color LaserJet 550, HP JetDirect 4000 Prin (highlighted), HP LaserJet 2100, HP LaserJet 5M, HP LaserJet 6MP, and two 'Unknown' devices. The 'HP JetDirect 4000 Prin' row is selected, and a context menu is open over it, listing actions such as 'Choose Action...', 'Application Manager', 'EWS Configuration', 'PSA Backup', 'PSA Restore', 'PSA FW Update', 'Configure' (highlighted), 'Open Device', 'Create Device Group', 'Jetdirect Firmware Update', and 'Update Printer Firmware'.

Device Model	Hardware Address	Port	IP
HP 9100C Digital Send	0060B0042F66	1	192.0.0.192
HP Color LaserJet 550	0030C1C52286	1	192.0.0.192
HP JetDirect 4000 Prin	0060B03F7349	1	192.0.0.192
HP LaserJet 2100	0800097FB44D	1	192.0.0.192
HP LaserJet 5M	0060B03994BD	1	192.168.0.54 NPI3994BD
HP LaserJet 6MP	0010830B2781	1	192.168.0.75 NPI0B2781
4000 HP Print Server Applia	0030C1AC231B	1	192.168.0.37
Unknown	0800097FB44D	3	192.0.0.192
Unknown	0800097FB44D	2	192.0.0.192

Batch Configuration

The screenshot displays the HP Device Management web interface. On the left is a navigation sidebar with the HP logo and 'invent' text. The main content area is titled 'Multiple Device Configuration' and features a table with the following data:

	Device Model	Hardware Address	Port	IP Address	IPX Name
4000	HP Print Server Applia	0030C1AC231B	1	192.168.0.37	

Below the table, it states 'Displaying 1 of 1 Possible Devices'. A dropdown menu for 'Device Model Subset' is set to 'All Device Models in List'. The configuration options include:

- Configure Multiple PSA IP Addresses?:
 - First PSA IP Address:
 - Last PSA IP Address:
 - Subnet Mask:
 - Gateway:
- System Date?:
 - Day: Month: Year:
 - System Time (HH:MM:SS): AM
- Time Zone?:

At the bottom left, an 'At a Glance' section shows: Quick Device Find ?, Last Discovery Completed ?, and Monitored Devices ?.

Batch Configuration

Device Model Subset:

<input type="checkbox"/> Restart/Shutdown ? :	<input checked="" type="radio"/> Restart <input type="radio"/> Shutdown
<input type="checkbox"/> DNS Domain (mydomain.com) ? :	<input type="text"/>
<input type="checkbox"/> DHCP ? :	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
<input type="checkbox"/> Primary Domain Name Server (DNS) Address ? :	<input type="text"/>
Secondary Domain Name Server (DNS) Address ? :	<input type="text"/>
<input type="checkbox"/> Primary WINS Address ? :	<input type="text"/>
<input type="checkbox"/> NT Domain Membership Status:	
NT Domain Administrator Name:	<input type="text"/>
NT Domain Administrator Password:	<input type="text"/>
<input type="checkbox"/> Windows NT Authentication ? :	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
NT Domain Controller Discovery ? :	<input checked="" type="radio"/> Automatically discover <input type="radio"/> Manually specify
NT Domain Controller:	<input type="text"/>

Network Configuration



Navigation

Device Management

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Help

At a Glance

Quick Device Find

Last Discovery Completed

Monitored Devices

Device Network Configuration: HP Print Server Appliance 4000 - 192.168.0.55

Configuration Go



Configuration Categories

- Quick Set
- Device
- Network
- Security

Edit Quick Set

PSA Name (Netbios): FRED2

DNS Domain (mydomain.com): techednetworks.com

DHCP: Enabled
 Disabled

IP Address: 192.168.0.55

Subnet Mask: 255.255.255.0

Gateway: 192.168.0.254

Primary Domain Name Server (DNS) Address: 208.45.246.34

Secondary Domain Name Server (DNS) Address: 208.45.246.35

Primary WINS Address:

Secondary WINS Address:

Next Step

Apply

Device Security



Navigation

Device Management

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Help

At a Glance

Quick Device Find ?

Last Discovery Completed ?

Monitored Devices ?

Device Security Configuration: HP Print Server Appliance 4000 - 192.168.0.55

Configuration [Go]

Configuration Categories

- Quick Set
- Device
- Network Security

Edit Quick Set ?

Add Local Admin Account ?:

Admin Password:

Repeat Admin Password:

Delete Local Admin Account ?:

admin
chris

Note: To deselect, use CTRL+click.

Add Domain Admin Account ?:

Delete Domain Admin Account ?:

Note: To deselect, use CTRL+click.

SSL Encryption strength ?:

Low

HTTPS Redirection:

Encrypt all web communications

Do not encrypt all web

Next Step

Apply

Print Shares



Navigation

Device Management

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Help

At a Glance

Quick Device Find ?

Last Discovery Completed ?

Monitored Devices ?

PSA Print Share Listing for FRED2

Status Go



Available Print Shares on PSA ?

Print Share	IP Address or Host Name	Status	Jobs
CLJ8550PCL6	192.168.0.67	Active	0
LJ5	192.168.0.54	Low toner	0

- Add
- Delete
- Properties
- Driver
- Security
- Refresh

Jobs Pending on the Selected Print Share ?

File Name	User	Size	Status
No jobs present			

- Delete
- Refresh

Driver Management – One Device



Navigation

Device Management

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Help

At a Glance

Quick Device Find ?

Last Discovery Completed ?

Monitored Devices ?

PSA Printer Driver Management

Status Go



FRED2

Printer Drivers:

Advertise this PSA as driver repository ?

Driver Name	OS	Enabled	In Use
HP CLJ 8500 - PS	NT	yes	no
HP CLJ 8500 - PS	9X	yes	no
HP Color LaserJet 4500 PCL 5c	NT	yes	no
HP Color LaserJet 4500 PCL 5c	9X	yes	no
HP Color LaserJet 4500 PS	NT	yes	no
HP Color LaserJet 4500 PS	9X	yes	no
HP Color LaserJet 4550 PS	NT	yes	no
HP Color LaserJet 4550 PS	9X	yes	no
HP Color LaserJet 8550 PCL 5C	NT	yes	yes
HP Color LaserJet 8550 PCL 5C	9X	yes	yes
HP Color LaserJet 8550 PS	NT	yes	no
HP Color LaserJet 8550 PS	9X	yes	no
HP LaserJet 2100 Series PCL 6	NT	yes	no

- Add
- Remove
- Web Update
- Distribute
- Enable
- Disable
- Initialize

Driver Management – Multiple Devices



Navigation

Print Queue Management ▾

- [-] Print Queue Management
 - [-] Print Queues
 - Create Queue
 - Delete Queue
 - [+] PSA Migration Tools
 - [-] Print Server Software Management
 - Install Software
 - Remove Software
 - Help
 - PSA Driver Management

At a Glance

Quick Device Find ?

Last Discovery Completed ?

Monitored Devices ?


PSA Printer Driver Management



PSA Printer Driver Management

Printer Drivers:

Print Server Appliances: Drivers on the selected PSA:

PSA Name	Driver Name	OS	Enabled	In Use
 FRED2	HP CLJ 8500 - PS	NT	yes	no
	HP CLJ 8500 - PS	9X	yes	no
	HP Color LaserJet 4500 PC	NT	yes	no
	HP Color LaserJet 4500 PC	9X	yes	no
	HP Color LaserJet 4500 PS	NT	yes	no
	HP Color LaserJet 4500 PS	9X	yes	no
	HP Color LaserJet 4550 PS	NT	yes	no
	HP Color LaserJet 4550 PS	9X	yes	no
	HP Color LaserJet 8550 PC	NT	yes	yes
	HP Color LaserJet 8550 PC	9X	yes	yes
	HP Color LaserJet 8550 PS	NT	yes	no
	HP Color LaserJet 8550 PS	9X	yes	no
	HP LaserJet 2100 Series P	NT	yes	no

- Add
- Remove
- Web Update
- Distribute
- Enable
- Disable
- Initialize

 = repository PSA ?

Properties



Navigation

Device Management

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Help

At a Glance

Quick Device Find ?

Last Discovery Completed ?

Monitored Devices ?

PSA Properties on FRED2

Status Go



CLJ8550PCL6 Properties:

Print Share Description (optional):

- Hide this print share in *Network Neighborhood* or *My Network Places*
- Print a banner page with each print job
- Pause printing from this print share

Printer IP Address or Hostname:

Printer Network Connector:

- HP JetDirect internal card or single-port external box
- HP JetDirect 3-port external box


Jetdirect port:

- Another manufacturer's internal card or external box:

Remote Queue Name: (e.g., LP, RAW, etc.)

OK Cancel

Driver Update



Navigation

Print Queue Management ▾

- Print Queue Management
 - Print Queues
 - Create Queue
 - Delete Queue
 - PSA Migration Tools
 - Print Server Software Management
 - Install Software
 - Remove Software
 - Help
 - PSA Driver Management

At a Glance

Quick Device Find ?


Last Discovery Completed ?

Monitored Devices ?

PSA Printer Driver Management

Web Update

Checking HP's Web site for updates for the selected drivers. Please wait...



```
*****  
Querying hp.com for drivers...  
..
```

Cancel

Driver Update (con't)



Navigation

Print Queue Management

- Print Queue Management
 - Print Queues
 - Create Queue
 - Delete Queue
 - PSA Migration Tools
 - Print Server Software Management
 - Install Software
 - Remove Software
 - Help
 - PSA Driver Management

At a Glance

Quick Device Find ?

Last Discovery Completed ?

Monitored Devices ?

PSA Printer Driver Management



Web Update

The following driver updates are available from HP's Web Site. Select the updated drivers you want to install.

Drivers: (and approximate download times)

HP Color LaserJet 8550 PCL 5C - null - 1 min.

Select All

Deselect All

Update

Cancel

Driver Update (con't)



Navigation

Print Queue Management

- Print Queue Management
 - Print Queues
 - Create Queue
 - Delete Queue
 - PSA Migration Tools
 - Print Server Software Management
 - Install Software
 - Remove Software
 - Help
 - PSA Driver Management

At a Glance

Quick Device Find ?

Last Discovery Completed ?

Monitored Devices ?

PSA Printer Driver Management



Web Update

Downloading specified drivers from HP's web site. Please wait...



```
*****  
HP Color LaserJet 8550 PCL 5C () - Downloading  
*****
```

Cancel

Driver Distribution



Navigation

Print Queue Management ▾

- Print Queue Management
 - Print Queues
 - Create Queue
 - Delete Queue
 - PSA Migration Tools
 - Print Server Software Management
 - Install Software
 - Remove Software
 - Help
 - PSA Driver Management

At a Glance

Quick Device Find ?

Last Discovery Completed ?

Monitored Devices ?

PSA Printer Driver Management



Distribute Drivers (Step 1 of 2)

Number of drivers selected for distribution: 4

Select the PSAs where the drivers will be copied.

Device Group: All Devices ▾

Print Server Appliances:

PSA Name
No P

Select All

Deselect All

= repository PSA ?

Replace existing drivers (recommended)

Next >

Cancel

PSA Backup and Schedule



Navigation

Device Management

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Help

At a Glance

Quick Device Find

Search box

Last Discovery Completed

Monitored Devices

PSA Backup - Options

PSA Backup Go



Back up Directory and File Information

Specify the location where the backup files will be saved.

Network Share Path:

Example: \\server\sharedirectory

Select at least one PSA attribute to include in the backup file name.

IP Address

Hostname

Hardware Address

Firmware Rev

Schedule PSA Backup

Back up Now

Scheduled Backup

March 30 2003 12 : 35 PM One Time

Email Results to: (optional)

Email Address:

Test Now

Next > Cancel

Batch PSA Backup



Navigation

Device Management

- Printer Firmware Update
- Jetdirect Firmware Update
- ⊕ Alerts
- ⊖ PSA Management
 - ⊖ PSA Backup
 - **PSA Backup**
 - Backup Schedules
 - Backup Status
 - ⊖ PSA Restore
 - PSA Restore
 - Restore Schedules
 - Restore Status
 - ⊖ PSA FW Update
 - PSA FW Update
 - FW Update Schedule
 - FW Update Status
- ⊕ Help

At a Glance

Quick Device Find ?

Last Discovery Completed ?


Monitored Devices ?

PSA Backup - Device Selection

PSA Backup

Select HP Print Server Appliances to back up

Device Group: All Devices

	Hostname	IP Address	Current FW	Hardware Address	Device Model
	FRED2	192.168.0.55	2.4.305 (beta)	0030C1AC231B	HP Print Server Appliance 4000


Select All

Deselect All

Next >

Cancel

Backup Status



Navigation

Device Management

- Printer Firmware Update
- Jetdirect Firmware Update
- Alerts
- PSA Management
 - PSA Backup
 - PSA Backup
 - Backup Schedules
 - Backup Status
 - PSA Restore
 - PSA Restore
 - Restore Schedules
 - Restore Status
 - PSA FW Update
 - PSA FW Update
 - FW Update Schedule
 - FW Update Status
- Help

At a Glance

Quick Device Find ?

Last Discovery Completed ?

Monitored Devices ?

PSA Backup - Status

PSA Backup Status

PSAs Currently Being Backed Up

Status	Date/Time	Hostname	IP Address	Current F	Hardware	Device Mo
None in progress						

[Back up Additional PSAs](#)

PSA Backup Results

Date/Time	Status	Hostname	IP Address	Current F	Hardware	Device Mo
None completed						

Select All Deselect All Clear Results

Refresh

PSA Restore and Schedule



Navigation

Device Management

- Device Management
 - Device Lists
 - Device Groups
 - Device Cache
 - Management Settings
 - Tools
 - Help

At a Glance

Quick Device Find

Last Discovery Completed

Monitored Devices

PSA Restore - Options

PSA Restore



Restore File Information

Specify the backup file to use to restore this PSA.

Backup File:

Select the items to restore.

- Administrative Accounts
- Network Settings
- Printers and Drivers

Schedule PSA Restore

Restore Now

Scheduled Restore

March 30 2003 12 : 35 PM

Email Results to: (optional)

Email Address:

New to the EWS

- SNMP
- SSL Encryption
- New Diagnostics
- More Log File Information

EWS Changes - SNMP



hp print server appliance

Online Manual

PRINT SERVICES

- Overview
- Print Shares
- Driver Management

NETWORKING

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

SNMP

SECURITY

- Administrators
- SSL Certificate

MAINTENANCE

- Backup
- Restore
- Upgrade
- Restart

DIAGNOSTICS

- System Summary
- Diagnostic Report
- Event Log

SNMP Settings

SNMP Version Support

- Enable SNMPv1/v2
 - Enable SNMPv1/v2 Read and Write access
 - Enable SNMPv1/v2 Read-only access

Enable SNMPv3

User Name:

Authentication Key: (Algorithm: MD5)

Privacy Key: (Algorithm: DES)

EngineID: 0x800007e58024512825d0826e3e

SNMP Traps

	IP Address	Community Name	Port
1	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>

apply reset help

EWS Changes - Security



PRINT SERVICES

- Overview
- Print Shares
- Driver Management

NETWORKING

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

SECURITY

- Administrators
- SSL Certificate**

MAINTENANCE

- Backup
- Restore
- Upgrade
- Restart

DIAGNOSTICS

- System Summary
- Diagnostic Report
- Event Log

SSL Certificate

Installed Certificate Type: Self Signed
 New Certificate Status: Installed

[view certificate](#)

[new certificate](#)

Encryption strength: Low (DES-56-bit, RC4-40-bit, RC4-128-bit or 3DES-156-bit) ▼

Encrypt all web communication

(Automatically redirect all web traffic to HTTPS)

[✓ apply](#) [↶ reset](#) [? help](#)

EWS Changes - Diagnostics



PRINT SERVICES

- Overview
- Print Shares
- Driver Management

NETWORKING

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

SECURITY

- Administrators
- SSL Certificate

MAINTENANCE

- Backup
- Restore
- Upgrade
- Restart

DIAGNOSTICS

- System Summary
- Diagnostic Report**
- Event Log

Diagnostic Report

Diagnostic

Status last gathered at: 29-Mar-2003 01:40 PM
Report displayed: 29-Mar-2003 01:42 PM

System

System Load (past 15 minutes): 2%
Disk Usage: 2%

DNS / WINS Servers

[DNS IP Address](#) [Connection Status](#)

208.45.246.34 DNS server '208.45.246.34' has no entry for this PSA.

208.45.246.35 DNS server '208.45.246.35' has no entry for this PSA.

[WINS IP Address](#) [Connection Status](#)

PROJECTDOMAIN Domain Controllers

Connection Status: Joined

Hostname	IP Address	Role	Connection Status
	192.168.0.84	Primary	Connected

Printer Status

Share Name	Printer Address	Printer Connection Status	Printer SNMP Status
CLJ8550PCL6	192.168.0.67 : raw	Connected	Unknown state
LJ5	192.168.0.54 : raw	Connected	Low toner

Network Statistics

Total Packets Received	3239060
Total Packets Transmitted	302676
Bad Packets Received	0
Received Packets Dropped	0
Framing Errors Received	0
Transmit Packet Errors	0
Transmit Packets Dropped	0
Transmit Packet Overruns	0
Transmit Collisions	0

PSA 4250 Summary

■ WJA Plug-ins Add Functionality

- Migration Tools
- PSA Status Visible to WJA
- Installation & Configuration
- Printer Share Management
- Driver Management
- FW Upgrade
- Backup/Restore
- PSA Alerts

■ New Features in the EWS

- Web UI and Configuration Validation
- PSA SNMP Agent
- SNMP Traps from PSA
- Security
- Performance Improvements

Connectivity solutions make a difference



Before:

- Increase printer reliability and manageability, while reducing administrative costs

After:

- HP Print Server Appliance 4200 (PSA)

Results:

- More stable, simple solution
- Managing printing issues takes less than half the time it used to
- Improved efficiency
- Administrative cost savings

MGM MIRAGE

“The purchase of the HP PSAs was one of the easiest decisions we have ever made. Depending on what was being replaced, the units paid for themselves in 10 months or less!”

*Don Ikhtiari
Director of Systems Engineering*

Reduce print-related help desk support

Hawaiian Electric

“With the HP Printer Server Appliance in place, the most noticeable change was that our print-related trouble tickets were reduced by more than 80%. Our server license costs were removed and support costs were dramatically reduced. The HP PSA is a very stable product that’s easy to use and very inexpensive. Here at HECO it’s a perfect solution for our print communication needs.”

Jim Yim, Network Analyst

Hawaiian Electric Company, Inc

Before:

- Print server overruns every week
- Need permanent printer server solution
 - easier to manage
 - more reliable
 - manage remotely

The HP print server appliance helped Hawaiian Electric reduce print-related trouble tickets by over 80%!

- PSA 4200
 - Monitor print activity
 - Manage printers
 - Alter configuration of appliances centrally

HP solutions make a difference

A ww financial services company

“We have over 15000 financial advisors for whom print infrastructure has now become transparent”

IT Director

Before:

- 260 field offices
- 20 weekly help desk calls
- Inability to manage printing issues from central location.
- Unreliable servers
- IT budget constraints

After:

- Installed PSA 4200's
- 2 help desk calls per month
- Changed server options
- Saved \$146K in help desk calls
- Saved \$1.3M year with servers

Tactics: How to implement TPM

**Start small and keep
it simple...**



- 1. Start with one office**
- 2. Connect as many printers as possible to the NW (JetDirect)**
- 3. Use the Print Server Appliance at the workgroup level or wherever it makes sense.**
- 4. Utilize the embedded web-server technology in our printers.**
- 5. Fully implement Web JetAdmin 7.2 with new plug-in for PSA. (use traps, alerts and reports)**
- 6. You can do it but we can help with enterprise printing experts**

Ways to get started now

What you can do

- Identify and team up key stakeholders in your imaging and printing environment
(IT, Facilities, Procurement, Department Managers)
- Determine your priorities —cost reduction, end user productivity, new capabilities, increase top line revenue
- Identify the biggest opportunities for improvement

What HP can do to help

- Meet with your key team members/company leaders to identify opportunities across your enterprise
- Propose opportunities that align with the needs of your company (more market share, lower year over year spend)
- Help quantify and develop a business case for implementing your strategy with minimal disruption to your environment

Resources

- Total Print Management Website (Test Drive the PSA!!!)
 - <http://www.hp.com/go/tpm>
- WJA Online Training-
 - come to www.hp.com/go/tpm for registration link
- PSA White Papers –
 - http://h20022.www2.hp.com/busprod/network_software/technotes_print_appliance/?rsidebarLayId=278
 - Installing and Configuring the HP Print Server Appliance with Firmware Version 2.3.xx
 - Driver Management Made Simple with 2.3.xx
 - Optimizing Your Print Environment with the HP Print Server Appliance
 - Locating Printer Shares in an Active Directory™ Environment
 - Active Directory™, Access Control, and the HP Print Server Appliance
- PSA Website – find out more & see the white papers!
 - <http://www.hp.com/go/psa>
- WJA Website - find out more & download WJA 7.2
 - <http://www.hp.com/go/jetdirect>

Resources

- Imaging & Printing Services white papers

http://hp.valued-resources.com/insights_home_2.asp?seg=HIED

- TPM Implementation Service – On-site implementation of WJA & a PSA at a typical office location to pilot and demonstrate

- Ask us afterwards or contact HP at www.hp.com/go/tpm

- WJA Implementation Service – On-site implementation and training of Web Jetadmin at a typical office location to pilot and demonstrate the effectiveness of WJA

- Ask us afterwards or contact HP at www.hp.com/go/tpm

- Imaging & Printing Services www.hp.com/services/ipgs



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