



# HP LaserJet Enterprise, HP LaserJet Managed, HP PageWide Enterprise, HP PageWide Managed - Configuration Guide using the Embedded Web Server (EWS)

## **SUMMARY**

Learn how to configure and manage printers using the HP Embedded Web Server (EWS). This guide is intended for network administrators. The information is specific to the EWS for Enterprise and Managed printers/MFPs running HP FutureSmart firmware.

---

# Legal information

## Copyright and License

© Copyright 2019 HP Development Company, L.P.

Reproduction, adaptation, or translation without prior written permission is prohibited, except as allowed under the copyright laws.

The information contained herein is subject to change without notice.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Edition 3, 7/2019

## Trademark Credits

Adobe®, Acrobat®, and PostScript® are trademarks of Adobe Systems Incorporated.

AirPrint is a trademark of Apple Inc., registered in the U.S. and other countries.

Apple and the Apple logo are trademarks of Apple Inc., registered in the U.S. and other countries.

Google™ is a trademark of Google Inc.

Microsoft®, Windows®, Windows® XP, and Windows Vista® are U.S. registered trademarks of Microsoft Corporation.

---

# Table of contents

<b>1 Overview of the HP Embedded Web Server (EWS)</b> .....	<b>1</b>
Introduction.....	1
Before you begin.....	2
HP Embedded Web Server features.....	2
Information tab.....	3
General tab.....	4
Other Links list.....	5
Copy/Print tab.....	5
Scan/Digital Send tab.....	5
Fax tab.....	7
Supplies tab.....	7
Troubleshooting tab.....	7
Security tab.....	8
HP Web Services tab.....	9
Networking tab.....	9
HP Embedded Web Server features.....	11
Information tab.....	11
General tab.....	12
Other Links list.....	13
Copy/Print tab.....	13
Scan/Digital Send tab.....	14
Fax tab.....	15
Supplies tab.....	16
Troubleshooting tab.....	16
Security tab.....	17
HP Web Services tab.....	18
Networking tab.....	18
<b>2 Open the HP Embedded Web Server (EWS)</b> .....	<b>20</b>
Overview.....	20
Open the HP Embedded Web Server (EWS).....	20
<b>3 Customize the control panel and EWS appearance</b> .....	<b>22</b>
Customize the Control-Panel Home screen.....	22
Introduction.....	22
Navigate to the Control Panel Customization menu.....	22

Change the items that display on the Home screen.....	23
Change the order in which the items appear on the Home screen.....	25
Change the Home screen background.....	25
Set the Home screen font color and effect.....	26
Change the display settings.....	26
Change the control-panel language and keyboard layout.....	27
Create a custom welcome screen.....	28
Configure the EWS display language.....	29
Customize the information shown on the Device Information page.....	30
Customize the ordering information shown on the Supplies page.....	30
Add links to the bottom of an EWS screen.....	31
Configure the EWS Help options.....	32
<b>4 Configure the network to which a printer is attached.....</b>	<b>33</b>
Introduction.....	33
Home Tab.....	33
Networking Tab.....	33
Configuration.....	34
Google Cloud Print.....	38
Security.....	40
Diagnostics.....	42
Other Links.....	42
Support.....	43
<b>5 Configure printer security.....</b>	<b>44</b>
Printer security features.....	44
Introduction.....	44
Video overview.....	45
Security statements.....	45
Assign an administrator password.....	45
Encryption support: HP High Performance Secure Hard Disks.....	47
Configure the Account Policy settings.....	47
Introduction.....	47
Configure the Account Policy settings.....	48
Configure Access Control settings for walk-up features in the EWS.....	49
Introduction.....	49
Step one: Set up the sign-in methods.....	49
Step two: Set up print feature permissions.....	52
Step three: Set up the Job Status and Screen Behavior settings.....	53
Step four: Set up the default permissions for each sign-in method.....	53
Step five: Set up Device User Accounts.....	53
Step six: Complete the setup.....	54
Protect printer data.....	54
Introduction.....	54
Set up Protect Stored Data.....	54
Step two: Complete the setup.....	59

Install certificates.....	59
Install certificates to ensure data security.....	59
Install certificates for remote apps.....	62
Restrict email domains.....	63
Specify websites able to access a printer.....	63
<b>6 Configure printer features using the EWS.....</b>	<b>65</b>
Configure the printer.....	65
Configure the color calibration and cleaning cycles.....	65
Configure the Manage trays settings.....	68
Configure the Manage Supplies settings.....	70
Configure jam recovery.....	70
Configure energy-conservation settings.....	71
Enable the USB port for printing.....	77
Configure job accounting.....	78
Configure the initial copy view (Expert Copy).....	88
Install third-party solutions.....	89
Configure printing.....	90
Set up default print options.....	90
Configure hold off print jobs.....	90
Restrict the number of colored pages printed.....	91
Customize printer job short-cuts using Quick Sets.....	94
Set the default PCL, PostScript, and font settings for a printer.....	104
Configure print quality and allowable paper types per tray.....	105
Configure the printer to send notifications for cartridge or paper events.....	105
Configure copying.....	110
Introduction.....	110
Set up default copy settings.....	110
Step two: Complete the setup.....	114
Configure scanning and digital sending.....	114
Set up Scan to Email.....	115
Set up Scan to Network Folder.....	141
Set up Scan to SharePoint.....	161
Set up Scan to USB Drive.....	169
Set up and configure the Address Book.....	176
Configure scanner job shortcuts using Quick Sets.....	184
Manage multiple devices with Digital Sending Software.....	194
Configure faxing.....	194
Set up fax send.....	194
Set up fax receive.....	198
Create and manage fax speed dials.....	202
Set up and configure fax archive.....	207
<b>7 Manage printers.....</b>	<b>210</b>
Manage security.....	210
Use the Self Test page.....	210
Manage security certificates.....	210

Troubleshoot printers.....	213
Begin troubleshooting.....	213
Retrieve diagnostic information .....	214
Access and use the remote control-panel.....	214
Set up AutoSend of printer details to HP .....	218
Reset printer settings.....	222
Back up and restore printer data .....	222
Introduction.....	222
Step one: Backup and restore data.....	222
Step two: Set up the Authentication Settings .....	223
Print tasks and printable reports.....	223
Print files .....	223
Print from a USB flash drive.....	223
Print reports.....	224
View printer information .....	225
View supplies status .....	225
View recent activities .....	227
Look up the printer IP address and firmware version .....	227
Look up the list of open source programs used in the firmware.....	228
View a snapshot of the control panel .....	228
Use the remote view of Settings apps on the control panel .....	228
View other printer information.....	229
Update the firmware.....	229
Introduction.....	229
Before you begin .....	229
Update the firmware.....	230
About firmware downgrades .....	237
Applicable printers .....	237
Print a configuration page .....	238
Set up and use HP Web Services.....	239


**8 Use EWS Online Help..... 240**

---

# 1 Overview of the HP Embedded Web Server (EWS)

The HP Embedded Web Server (EWS) resides on a printer in the firmware instead of as software that is installed on a network server. The EWS provides an interface to the printer that anyone who has a network-connected computer and a standard Web browser can open and use. No additional software or drivers are required. Use the EWS to view the printer status and manage the printing functions from a computer instead of from the printer control panel.


---

 **NOTE:** This information is specific to the HP Embedded Web Server (EWS) for Enterprise and Managed printers/MFPs running HP FutureSmart firmware.

---


An administrator password can be set to prevent unauthorized users from remotely configuring the printer or from gaining access to functionality reserved for the network administrator from the control panel. Some tabs, pages, and settings are available only when an administrator password is set. For more information about assigning an administrator password, see the **General Security** page on the **Security** tab.

---


 **NOTE:** By default, no administrator password is set. HP recommends securing the printer by setting the admin password for the EWS.

---

If an administrator password is set, only the **Information** tab is available when a user first accesses the EWS. To gain access to the other tabs and settings in the EWS, click the **Sign In** button located in the upper-right corner of the page, and then sign in with the administrator password. To maintain security for the printer, click the **Sign Out** button when finished using the EWS.

The tabs for the EWS are available across the top of the page. On small, narrow devices, the tabs are collapsed and available from the menu  icon.

---

 **NOTE:** All features might not be available on every device.

---

## Introduction

Use the HP Embedded Web Server to manage printing functions from a computer instead of the printer control panel.

- View printer status information
- Determine the remaining life for all supplies and order new ones
- View and change tray configurations

- View and change the printer control-panel menu configuration
- View and print internal pages
- Receive notification of printer and supplies events
- View and change network configuration

The HP Embedded Web Server works when the printer is connected to an IP-based network. The HP Embedded Web Server does not support IPX-based printer connections. Internet access is not needed to open and use the HP Embedded Web Server.

When the printer is connected to the network, the HP Embedded Web Server is automatically available.



---

**NOTE:** The HP Embedded Web Server is not accessible beyond the network firewall.

---

## Before you begin

To use the HP Embedded Web Server, the browser must meet the following requirements:

### Windows® 7

- Internet Explorer (version 8.x or greater)
- Google Chrome (version 34.x or greater)
- Firefox (version 20.x or greater)

### Windows® 8 or greater

- Internet Explorer (version 9.x or greater)
- Google Chrome (version 34.x or greater)
- Firefox (version 20.x or greater)

### macOS

- Safari (version 5.x or greater)
- Google Chrome (version 34.x or greater)

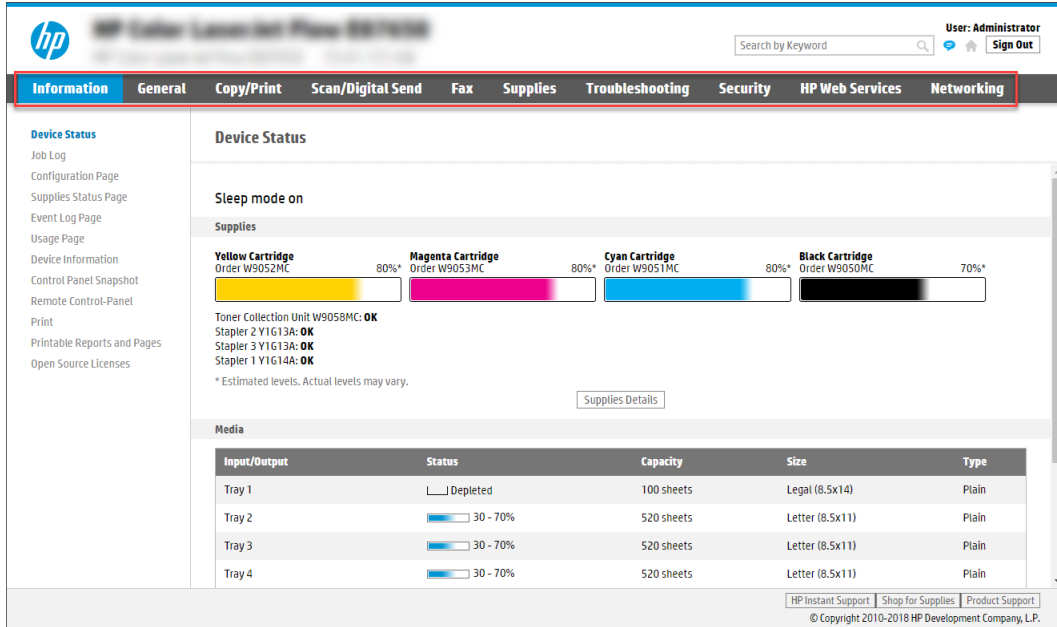
### Linux

- Google Chrome (version 34.x or greater)
- Firefox (version 20.x or greater)

## HP Embedded Web Server features

Learn about the HP Embedded Web Server (EWS) features available on each tab.

Figure 1-1 EWS Tabs



**NOTE:** Copy/Print, Scan/Digital Send, and Fax tabs only appear for multi-function printers (MFPs). A Print tab appears for single-function printers (SFPs).

## Information tab

Refer to the table for settings in the **Information** tab.

Table 1-1 HP Embedded Web Server Information tab

Menu	Description
<b>Device Status</b>	Shows the printer status and shows the estimated life remaining of HP supplies. The page also shows the type and size of paper set for each tray. To change the default settings, click the <b>Change Settings</b> link.
<b>Job Log</b>	Provides a list of the jobs that have been processed.
<b>Configuration Page</b>	Shows the information found on the configuration page.
<b>Supplies Status Page</b>	Shows the status of the supplies for the printer.
<b>Event Log Page</b>	Shows a list of all printer events and errors. Use the <b>HP Instant Support</b> link (in the <b>Other Links</b> area on all HP Embedded Web Server pages) to connect to a set of dynamic web pages that help solve problems. These pages also show additional services available for the printer.
<b>Usage Page</b>	Shows a summary of the number of pages the printer has printed, grouped by size, type, and paper print path.
<b>Device Information</b>	Shows the printer network name, address, and model information. To customize these entries, click the <b>Device Information</b> menu on the <b>General</b> tab.
<b>Control Panel Snapshot</b>	Shows an image of the current screen on the control panel display.
<b>Remote Control-Panel</b>	Provides a way to troubleshoot or manage the printer from a browser window on a desktop or laptop.
<b>Print</b>	Allows the user to send a print-ready file to the printer to be printed.
<b>Printable Reports and Pages</b>	Lists the internal reports and pages for the printer. Select one or more items to print.

**Table 1-1 HP Embedded Web Server Information tab (continued)**

Menu	Description
<b>Open Source Licenses</b>	Shows a summary of the licenses for open source software programs that can be used with the printer.

## General tab

Refer to the table for settings in the **General** tab.

**Table 1-2 HP Embedded Web Server General tab**

Menu	Description
<b>Control Panel Customization</b>	Reorder, show, or hide features on the control-panel display.  Change the default display language and keyboard layouts.
<b>Quick Sets</b>	Configure jobs that are available in the <b>Quick Sets</b> area of the Home screen on the printer control panel.
<b>Alerts</b>	Set up email alerts for various printer and supplies events.
<b>Control Panel Settings App</b>	Shows the Settings app options that are available on the printer control panel.
<b>General Settings</b>	Configure how the printer recovers from jams and other general printer settings.
<b>AutoSend</b>	Configure the printer to send automated emails regarding printer configuration and supplies to specific email addresses.
<b>Edit Other Links</b>	Add or customize a link to another website. This link displays in the footer area on all HP Embedded Web Server pages.
<b>Ordering Information</b>	Enter information about ordering replacement toner cartridges. This information displays on the supplies status page.
<b>Device Information</b>	Name the printer and assign an asset number to it. Enter the name of the primary contact who will receive information about the printer.
<b>Language</b>	Set the language in which to display the HP Embedded Web Server information.
<b>Firmware Upgrade</b>	Download and install printer firmware upgrade files.
<b>Date/Time Settings</b>	Set the date and time or synchronize with a network time server.
<b>Energy Settings</b>	Set or edit a wake time, sleep time, and sleep delay for the printer. Set a different schedule for each day of the week and for holidays.  Set which interactions with the printer cause it to wake from sleep mode.
<b>Back up and Restore</b>	Create a backup file that contains printer and user data. If necessary, use this file to restore data to the printer.
<b>Reset Factory Settings</b>	Restore printer settings to the factory defaults.
<b>Solution Installer</b>	Install or remove third-party software packages that extend or modify the functionality of the printer.
<b>Job Statistics Settings</b>	Provides connection information about third-party job-statistics services, or enables local serverless device job accounting.
<b>Quota Settings</b>	Provides connection information about third-party job-quota services, or enables local device quota service.

## Other Links list

Configure which links display in the footer of the HP Embedded Web Server by using the **Edit Other Links** menu on the **General** tab.



**NOTE:** The following are the default links.

**Table 1-3** HP Embedded Web Server Other Links list

Menu	Description
HP Instant Support	Connect to the HP website to find solutions to printer problems.
Shop for Supplies	Connect to the HP website for information on purchasing original HP supplies, such as cartridges and paper.
Product Support	Connect to the support site for the printer to search for help on various topics.

## Copy/Print tab

Refer to the table for settings in the **Copy/Print** tab.

**Table 1-4** HP Embedded Web Server Copy/Print tab

Menu	Description
Print from USB Drive Settings	Enable or disable the <a href="#">Print from USB Drive</a> menu on the control panel.
Manage Stored Jobs	Enable or disable the ability to store jobs in the printer memory. Configure job-storage options.
Default Print Options	Configure the default options for print jobs.
Restrict Color (Color printers only)	Permit or restrict color printing and copying. Specify permissions for individual users or for jobs that are sent from specific software programs.
PCL and PostScript Settings	Adjust the PCL and PostScript settings for all print jobs, including copy jobs and received faxes.
Print Quality	Configure the print quality settings, including color adjustment, image registration, and allowed paper types.
Copy Settings	Configure the default options and Quick Sets for copy jobs. <b>NOTE:</b> If job-specific copy setting options are not set from the control panel at the start of a job, the default settings will be used for the job.
Expert Copy	Enable or disable Expert Copy and set the initial copy view.  The Expert Copy feature is available only on some HP MFPs with larger control panels, and is available in FutureSmart 4 firmware 24.7.3 release or later.
Manage Trays	Configure settings for paper trays.
Manage Stapler/Stacker	Configure settings for the stapler/stacker for printers that have this feature.

## Scan/Digital Send tab

Refer to the table for settings in the **Scan/Digital Send** tab.

**Table 1-5 HP Embedded Web Server Scan/Digital Send tab**

<b>Menu</b>	<b>Description</b>
<b>Email Setup</b>	<p>Configure the default email settings for digital sending, including the following:</p> <ul style="list-style-type: none"> <li>• Settings for the outgoing mail (SMTP) server</li> <li>• Settings for Email Quick Sets jobs</li> <li>• Default message settings, such as the "From" address and the subject line</li> <li>• Settings for digital signatures and encryption</li> <li>• Settings for email notifications</li> <li>• Default scan settings for email jobs</li> <li>• Default file settings for email jobs</li> </ul>
<b>Scan to Network Folder</b>	<p>Configure the network folder settings for digital sending, including the following:</p> <ul style="list-style-type: none"> <li>• Settings for Quick Sets jobs saved in a network folder</li> <li>• Settings for notifications</li> <li>• Default scan settings for jobs saved in a network folder</li> <li>• Default file settings for jobs saved in a network folder</li> </ul>
<b>Scan to SharePoint®</b>	<p>Configure the SharePoint settings for digital sending, including the following:</p> <ul style="list-style-type: none"> <li>• Settings for Quick Sets jobs saved in a document library on the SharePoint site</li> <li>• Default settings for jobs saved in a document library on the SharePoint site</li> </ul>
<b>Scan to USB Drive</b>	<p>Configure the USB settings for digital sending, including the following:</p> <ul style="list-style-type: none"> <li>• Settings for Quick Sets jobs saved on a USB flash drive</li> <li>• Settings for notifications</li> <li>• Default scan settings for jobs saved on a USB flash drive</li> <li>• Default file settings for jobs saved on a USB flash drive</li> </ul>
<b>Contacts</b>	<p>Manage contacts, including the following:</p> <ul style="list-style-type: none"> <li>• Add email addresses into the printer one at a time.</li> <li>• Import a large list of frequently-used email addresses on to the printer all at once, rather than adding them one at a time.</li> <li>• Export contacts from the printer into a .CSV file on the computer to use as a data backup, or import the records onto another HP printer.</li> <li>• Edit email addresses that have already been saved in the printer.</li> </ul>
<b>Preferences</b>	<p>Manage general scanning settings.</p>
<b>Email and Scan to Network Folder Quick Setup Wizards</b>	<p>Configure the printer to send scanned images as email attachments.</p> <p>Configure the printer to save scanned images to network-folder Quick Sets. Quick Sets provide easy access to files saved on the network.</p>
<b>Digital Sending Software Setup</b>	<p>Configure settings related to using optional Digital Sending software.</p>

## Fax tab

Refer to the table for settings in the **Fax** tab.

**Table 1-6** HP Embedded Web Server Fax tab

Menu	Description
<b>Fax Send Setup</b>	Configure settings for sending faxes, including the following: <ul style="list-style-type: none"><li>• Default settings for outgoing faxes</li><li>• Settings for fax Quick Sets jobs</li><li>• Settings for notifications</li><li>• Default setting for sending faxes using the internal fax modem</li><li>• Settings for using a LAN fax service</li><li>• Settings for using an Internet fax service</li></ul>
<b>Fax Speed Dials</b>	Manage speed dials, including the following: <ul style="list-style-type: none"><li>• Import .CSV files containing email addresses, fax numbers, or user records, so that they can be accessed on this printer.</li><li>• Export email, fax, or user records from the printer into a file on the computer to use as a data backup, or import the records onto another HP printer.</li></ul>
<b>Fax Receive Setup</b>	Configure default print options for incoming faxes, and set up a fax printing schedule.
<b>Fax Archive and Forwarding</b>	Enable or disable fax archiving and fax forwarding, and configure basic settings for each: <ul style="list-style-type: none"><li>• Fax archiving is a method to send a copy of all incoming and outgoing faxes to an email address, a network folder, or an FTP server.</li><li>• Fax forwarding is a method to forward incoming faxes to a different fax device.</li></ul>
<b>Fax Activity Log</b>	Contains a list of the faxes that have been sent from or received by this printer.

## Supplies tab

Refer to the table for settings in the **Supplies** tab.

**Table 1-7** HP Embedded Web Server Supplies tab

Menu	Description
<b>Manage Supplies</b>	Configure how the printer reacts when supplies reach a Very Low state.

## Troubleshooting tab

Refer to the table for settings in the **Troubleshooting** tab.

**Table 1-8 HP Embedded Web Server Troubleshooting tab**

Menu	Description
<b>General Troubleshooting</b>	Use the following options as appropriate: <ul style="list-style-type: none"> <li>• <b>Reports and Tests</b> area: Select and print several types of reports and tests. Some reports can be viewed in the Embedded Web Server by clicking the <b>View</b> button.</li> <li>• <b>Fax Tools</b> area: Configure settings for fax troubleshooting. (MFP and Digital Sender products with HP analog fax accessory only)</li> <li>• <b>OXPD Troubleshooting</b> area: Enable or disable the <b>Allow a Non-Secure Connection for Web Services</b> option</li> <li>• <b>Auto Recovery</b> area: Enable or disable the <b>Enable Auto Recovery</b> option, which allows the printer to auto recover from errors that might require the power to be turned off and on (for example, a 49 error).</li> </ul>
<b>Online Help</b>	Link to HP cloud-based online help to assist in troubleshooting printing issues.
<b>Diagnostic Data</b>	Export printer information to a file that can be useful for HP technical support to use for detailed problem analysis.  <b>NOTE:</b> This item is available only if an administrator password is set from the <b>Security</b> tab.
<b>Calibration/Cleaning</b>  (Color LaserJet printers only)	Enable the automatic cleaning feature, create and print the cleaning page, and select an option to calibrate the printer immediately.
<b>Reset Factory Settings</b>	Restore printer settings to factory defaults.
<b>Firmware Upgrade</b>	Download and install printer firmware upgrade files.

## Security tab

Refer to the table for settings in the **Security** tab.

**Table 1-9 HP Embedded Web Server Security tab**

Menu	Description
<b>General Security</b>	Settings for general security, including the following: <ul style="list-style-type: none"> <li>• Configure an administrator password to restrict access to certain features on the printer.</li> <li>• Set a custom device Service Access Code.</li> <li>• Set PJI password for processing PJI commands.</li> <li>• Set file system access and firmware upgrade security.</li> <li>• Enable or disable the Host USB port on the control panel or the USB connectivity port on the formatter for printing directly from a computer.</li> <li>• View the status of all security settings.</li> </ul>
<b>Account Policy</b>	Enable administrator account settings.
<b>Access Control</b>	Configure access to printer functions for specific individuals or groups, and select the method individuals use to sign in to the printer.

**Table 1-9 HP Embedded Web Server Security tab (continued)**

Menu	Description
<b>Protect Stored Data</b>	Configure and manage the internal storage for the printer.  Configure settings for jobs that are stored on the printer internal storage.
<b>Manage Remote Apps</b>	Manage or whitelist remote apps by importing or deleting certificates that allow devices to use this product.
<b>Certificate Management</b>	Install and manage security certificates for access to the printer and the network.
<b>Email Domain Restriction</b>	If email functionality is enabled, administrators can limit the email addresses to which the printer can send messages.
<b>Web Service Security</b>	Allow resources on this printer to be accessed by web pages from different domains. If no sites are added to the list, then all sites are trusted.
<b>Self Test</b>	Verify that the security functions are running according to expected system parameters.

## HP Web Services tab

Use the **HP Web Services** tab to configure and enable HP Web Services for this printer. It is necessary to Enable HP Web Services to use the HP ePrint feature.

**Table 1-10 HP Embedded Web Server HP Web Services tab**

Menu	Description
<b>Web Services Setup</b>	Connect this printer to HP Connected on the web by enabling HP Web Services.
<b>Web Proxy</b>	Configure a proxy server if there are issues enabling HP Web Services or connecting the printer to the Internet.
<b>HP JetAdvantage</b>	Access solutions that extend the capabilities of the printer
<b>Smart Cloud Print</b>	Enable Smart Cloud Print, which allows access to web-based apps that extend the capabilities of the printer.

## Networking tab

Use the **Networking** tab to configure and secure network settings for the printer when it is connected to an IP-based network. This tab does not display if the printer is connected to other types of networks.

**Table 1-11 HP Embedded Web Server Networking tab > Configuration settings**

Menu	Description
<b>Wireless Station</b>	Configure the initial wireless settings.  <b>NOTE:</b> The configuration options available depend on the print server model.
<b>Wi-Fi Direct</b>	Configure Wi-Fi Direct settings for printers that include embedded Wi-Fi Direct Print and NFC printing or that have a wireless accessory installed.  <b>NOTE:</b> The configuration options available depend on the print server model.
<b>TCP/IP Settings</b>	Configure TCP/IP settings for IPv4 and IPv6 networks.  <b>NOTE:</b> The configuration options available depend on the print server model.

**Table 1-11 HP Embedded Web Server Networking tab > Configuration settings (continued)**

Menu	Description
<b>Network Settings</b>	Configure IPX/SPX, AppleTalk, DLC/LLC, and SNMP settings, depending on the print server model.
<b>Other Settings</b>	Configure general printing protocols and services supported by the print server. The available options depend on the print server model, but can include firmware update, LPD queues, USB settings, support information, and refresh rate.
<b>AirPrint</b>	Enable, set up, or disable network printing from Apple-supported printers.
<b>Select Language</b>	Change the language displayed by the HP Embedded Web Server. This page displays if the web pages support multiple languages. Optionally, select supported languages through language-preference settings in the browser.
<b>Select Location</b>	Select a country/region for the printer.

**Table 1-12 HP Embedded Web Server Networking tab > Google Cloud Print settings**

Menu	Description
<b>Setup</b>	Set up Google Cloud Print options.
<b>Web Proxy</b>	Configure proxy settings.

**Table 1-13 HP Embedded Web Server Networking tab > Security settings**

Menu	Description
<b>Settings</b>	View and restore current security settings to factory-default values.  Configure security settings using the Security Configuration Wizard.  <b>NOTE:</b> Do not use the Security Configuration Wizard to configure security settings if using network-management applications, such as HP Web Jetadmin.
<b>Authorization</b>	Control configuration management and use of this printer, including limiting host access to this printer through an Access Control List (ACL) (for selected print servers on IPv4 networks only).
<b>Secure Communication</b>	Configure Transport Layer Security (TLS) protocol and encryption options.
<b>Mgmt. Protocols</b>	Configure and manage security protocols for this printer, including the following: <ul style="list-style-type: none"> <li>• Set the security management level for the HP Embedded Web Server, and control traffic over HTTP and HTTPS.</li> <li>• Configure the SNMP (Simple Network Management Protocol) operation. Enable or disable the SNMP v1/v2c or SNMP v3 agents on the print server.</li> <li>• Control access through protocols that may not be secure, such as printing protocols, print services, discovery protocols, name resolution services, and configuration-management protocols.</li> </ul>
<b>802.1X Authentication</b>	Configure 802.1X authentication settings on the Jetdirect print server as required for client authentication on the network, and reset the 802.1X authentication settings to factory-default values.  <b>CAUTION:</b> When changing the 802.1X authentication settings; the printer might lose its connection. To reconnect, it might be necessary to reset the print server to a factory-default state and reinstall the printer.
<b>IPsec/Firewall</b>	View or configure a Firewall policy or an IPsec/Firewall policy.

**Table 1-13 HP Embedded Web Server Networking tab > Security settings (continued)**

Menu	Description
<b>Announcement Agent</b>	Enable or disable the HP Device Announcement Agent, set the configuration server, and configure mutual authentication using certificates.

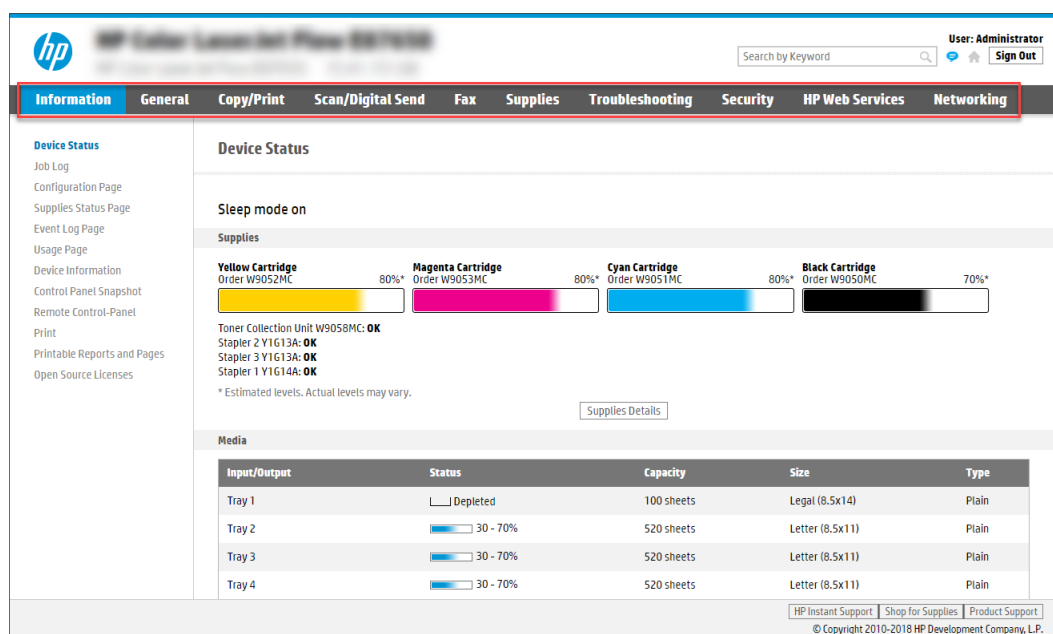
**Table 1-14 HP Embedded Web Server Networking tab > Diagnostics settings**

Menu	Description
<b>Network Statistics</b>	Display network statistics that are collected and stored on the HP Jetdirect print server.
<b>Protocol Info</b>	View a list of network-configuration settings on the HP Jetdirect print server for each protocol.
<b>Configuration Page</b>	View the HP Jetdirect configuration page, which contains status and configuration information.

## HP Embedded Web Server features

Learn about the HP Embedded Web Server (EWS) features available on each tab.

**Figure 1-2 EWS Tabs**



**NOTE:** Copy/Print, Scan/Digital Send, and Fax tabs only appear for multi-function printers (MFPs). A Print tab appears for single-function printers (SFPs).

### Information tab

Refer to the table for settings in the **Information** tab.

**Table 1-15 HP Embedded Web Server Information tab**

Menu	Description
<b>Device Status</b>	Shows the printer status and shows the estimated life remaining of HP supplies. The page also shows the type and size of paper set for each tray. To change the default settings, click the <b>Change Settings</b> link.
<b>Job Log</b>	Provides a list of the jobs that have been processed.
<b>Configuration Page</b>	Shows the information found on the configuration page.
<b>Supplies Status Page</b>	Shows the status of the supplies for the printer.
<b>Event Log Page</b>	Shows a list of all printer events and errors. Use the <b>HP Instant Support</b> link (in the <b>Other Links</b> area on all HP Embedded Web Server pages) to connect to a set of dynamic web pages that help solve problems. These pages also show additional services available for the printer.
<b>Usage Page</b>	Shows a summary of the number of pages the printer has printed, grouped by size, type, and paper print path.
<b>Device Information</b>	Shows the printer network name, address, and model information. To customize these entries, click the <b>Device Information</b> menu on the <b>General</b> tab.
<b>Control Panel Snapshot</b>	Shows an image of the current screen on the control panel display.
<b>Remote Control-Panel</b>	Provides a way to troubleshoot or manage the printer from a browser window on a desktop or laptop.
<b>Print</b>	Allows the user to send a print-ready file to the printer to be printed.
<b>Printable Reports and Pages</b>	Lists the internal reports and pages for the printer. Select one or more items to print.
<b>Open Source Licenses</b>	Shows a summary of the licenses for open source software programs that can be used with the printer.

## General tab

Refer to the table for settings in the **General** tab.

**Table 1-16 HP Embedded Web Server General tab**


Menu	Description
<b>Control Panel Customization</b>	Reorder, show, or hide features on the control-panel display.  Change the default display language and keyboard layouts.
<b>Quick Sets</b>	Configure jobs that are available in the <b>Quick Sets</b> area of the Home screen on the printer control panel.
<b>Alerts</b>	Set up email alerts for various printer and supplies events.
<b>Control Panel Settings App</b>	Shows the Settings app options that are available on the printer control panel.
<b>General Settings</b>	Configure how the printer recovers from jams and other general printer settings.
<b>AutoSend</b>	Configure the printer to send automated emails regarding printer configuration and supplies to specific email addresses.
<b>Edit Other Links</b>	Add or customize a link to another website. This link displays in the footer area on all HP Embedded Web Server pages.
<b>Ordering Information</b>	Enter information about ordering replacement toner cartridges. This information displays on the supplies status page.

**Table 1-16 HP Embedded Web Server General tab (continued)**

Menu	Description
<b>Device Information</b>	Name the printer and assign an asset number to it. Enter the name of the primary contact who will receive information about the printer.
<b>Language</b>	Set the language in which to display the HP Embedded Web Server information.
<b>Firmware Upgrade</b>	Download and install printer firmware upgrade files.
<b>Date/Time Settings</b>	Set the date and time or synchronize with a network time server.
<b>Energy Settings</b>	Set or edit a wake time, sleep time, and sleep delay for the printer. Set a different schedule for each day of the week and for holidays.  Set which interactions with the printer cause it to wake from sleep mode.
<b>Back up and Restore</b>	Create a backup file that contains printer and user data. If necessary, use this file to restore data to the printer.
<b>Reset Factory Settings</b>	Restore printer settings to the factory defaults.
<b>Solution Installer</b>	Install or remove third-party software packages that extend or modify the functionality of the printer.
<b>Job Statistics Settings</b>	Provides connection information about third-party job-statistics services, or enables local serverless device job accounting.
<b>Quota Settings</b>	Provides connection information about third-party job-quota services, or enables local device quota service.

## Other Links list

Configure which links display in the footer of the HP Embedded Web Server by using the **Edit Other Links** menu on the **General** tab.

 **NOTE:** The following are the default links.

**Table 1-17 HP Embedded Web Server Other Links list**

Menu	Description
<b>HP Instant Support</b>	Connect to the HP website to find solutions to printer problems.
<b>Shop for Supplies</b>	Connect to the HP website for information on purchasing original HP supplies, such as cartridges and paper.
<b>Product Support</b>	Connect to the support site for the printer to search for help on various topics.

## Copy/Print tab

Refer to the table for settings in the **Copy/Print** tab.

**Table 1-18 HP Embedded Web Server Copy/Print tab**

Menu	Description
<b>Print from USB Drive Settings</b>	Enable or disable the <a href="#">Print from USB Drive</a> menu on the control panel.
<b>Manage Stored Jobs</b>	Enable or disable the ability to store jobs in the printer memory.  Configure job-storage options.

**Table 1-18 HP Embedded Web Server Copy/Print tab (continued)**

Menu	Description
<b>Default Print Options</b>	Configure the default options for print jobs.
<b>Restrict Color</b>  (Color printers only)	Permit or restrict color printing and copying.  Specify permissions for individual users or for jobs that are sent from specific software programs.
<b>PCL and PostScript Settings</b>	Adjust the PCL and PostScript settings for all print jobs, including copy jobs and received faxes.
<b>Print Quality</b>	Configure the print quality settings, including color adjustment, image registration, and allowed paper types.
<b>Copy Settings</b>	Configure the default options and Quick Sets for copy jobs.  <b>NOTE:</b> If job-specific copy setting options are not set from the control panel at the start of a job, the default settings will be used for the job.
<b>Expert Copy</b>	Enable or disable Expert Copy and set the initial copy view.  The Expert Copy feature is available only on some HP MFPs with larger control panels, and is available in FutureSmart 4 firmware 24.7.3 release or later.
<b>Manage Trays</b>	Configure settings for paper trays.
<b>Manage Stapler/Stacker</b>	Configure settings for the stapler/stacker for printers that have this feature.

## Scan/Digital Send tab

Refer to the table for settings in the **Scan/Digital Send** tab.

**Table 1-19 HP Embedded Web Server Scan/Digital Send tab**

Menu	Description
<b>Email Setup</b>	Configure the default email settings for digital sending, including the following: <ul style="list-style-type: none"><li>• Settings for the outgoing mail (SMTP) server</li><li>• Settings for Email Quick Sets jobs</li><li>• Default message settings, such as the "From" address and the subject line</li><li>• Settings for digital signatures and encryption</li><li>• Settings for email notifications</li><li>• Default scan settings for email jobs</li><li>• Default file settings for email jobs</li></ul>
<b>Scan to Network Folder</b>	Configure the network folder settings for digital sending, including the following: <ul style="list-style-type: none"><li>• Settings for Quick Sets jobs saved in a network folder</li><li>• Settings for notifications</li><li>• Default scan settings for jobs saved in a network folder</li><li>• Default file settings for jobs saved in a network folder</li></ul>

**Table 1-19 HP Embedded Web Server Scan/Digital Send tab (continued)**

Menu	Description
<b>Scan to SharePoint*</b>	Configure the SharePoint settings for digital sending, including the following: <ul style="list-style-type: none"><li>• Settings for Quick Sets jobs saved in a document library on the SharePoint site</li><li>• Default settings for jobs saved in a document library on the SharePoint site</li></ul>
<b>Scan to USB Drive</b>	Configure the USB settings for digital sending, including the following: <ul style="list-style-type: none"><li>• Settings for Quick Sets jobs saved on a USB flash drive</li><li>• Settings for notifications</li><li>• Default scan settings for jobs saved on a USB flash drive</li><li>• Default file settings for jobs saved on a USB flash drive</li></ul>
<b>Contacts</b>	Manage contacts, including the following: <ul style="list-style-type: none"><li>• Add email addresses into the printer one at a time.</li><li>• Import a large list of frequently-used email addresses on to the printer all at once, rather than adding them one at a time.</li><li>• Export contacts from the printer into a .CSV file on the computer to use as a data backup, or import the records onto another HP printer.</li><li>• Edit email addresses that have already been saved in the printer.</li></ul>
<b>Preferences</b>	Manage general scanning settings.
<b>Email and Scan to Network Folder Quick Setup Wizards</b>	Configure the printer to send scanned images as email attachments.  Configure the printer to save scanned images to network-folder Quick Sets. Quick Sets provide easy access to files saved on the network.
<b>Digital Sending Software Setup</b>	Configure settings related to using optional Digital Sending software.

## Fax tab

Refer to the table for settings in the **Fax** tab.

**Table 1-20 HP Embedded Web Server Fax tab**

Menu	Description
<b>Fax Send Setup</b>	Configure settings for sending faxes, including the following: <ul style="list-style-type: none"><li>• Default settings for outgoing faxes</li><li>• Settings for fax Quick Sets jobs</li><li>• Settings for notifications</li><li>• Default setting for sending faxes using the internal fax modem</li><li>• Settings for using a LAN fax service</li><li>• Settings for using an Internet fax service</li></ul>

**Table 1-20 HP Embedded Web Server Fax tab (continued)**

Menu	Description
<b>Fax Speed Dials</b>	Manage speed dials, including the following: <ul style="list-style-type: none"><li>• Import .CSV files containing email addresses, fax numbers, or user records, so that they can be accessed on this printer.</li><li>• Export email, fax, or user records from the printer into a file on the computer to use as a data backup, or import the records onto another HP printer.</li></ul>
<b>Fax Receive Setup</b>	Configure default print options for incoming faxes, and set up a fax printing schedule.
<b>Fax Archive and Forwarding</b>	Enable or disable fax archiving and fax forwarding, and configure basic settings for each: <ul style="list-style-type: none"><li>• Fax archiving is a method to send a copy of all incoming and outgoing faxes to an email address, a network folder, or an FTP server.</li><li>• Fax forwarding is a method to forward incoming faxes to a different fax device.</li></ul>
<b>Fax Activity Log</b>	Contains a list of the faxes that have been sent from or received by this printer.

## Supplies tab

Refer to the table for settings in the **Supplies** tab.

**Table 1-21 HP Embedded Web Server Supplies tab**

Menu	Description
<b>Manage Supplies</b>	Configure how the printer reacts when supplies reach a Very Low state.

## Troubleshooting tab

Refer to the table for settings in the **Troubleshooting** tab.

**Table 1-22 HP Embedded Web Server Troubleshooting tab**

Menu	Description
<b>General Troubleshooting</b>	Use the following options as appropriate: <ul style="list-style-type: none"><li>• <b>Reports and Tests</b> area: Select and print several types of reports and tests. Some reports can be viewed in the Embedded Web Server by clicking the <b>View</b> button.</li><li>• <b>Fax Tools</b> area: Configure settings for fax troubleshooting. (MFP and Digital Sender products with HP analog fax accessory only)</li><li>• <b>XPd Troubleshooting</b> area: Enable or disable the <b>Allow a Non-Secure Connection for Web Services</b> option</li><li>• <b>Auto Recovery</b> area: Enable or disable the <b>Enable Auto Recovery</b> option, which allows the printer to auto recover from errors that might require the power to be turned off and on (for example, a 49 error).</li></ul>
<b>Online Help</b>	Link to HP cloud-based online help to assist in troubleshooting printing issues.

**Table 1-22 HP Embedded Web Server Troubleshooting tab (continued)**

Menu	Description
<b>Diagnostic Data</b>	Export printer information to a file that can be useful for HP technical support to use for detailed problem analysis.
<b>NOTE:</b> This item is available only if an administrator password is set from the <b>Security</b> tab.	
<b>Calibration/Cleaning</b> (Color LaserJet printers only)	Enable the automatic cleaning feature, create and print the cleaning page, and select an option to calibrate the printer immediately.
<b>Reset Factory Settings</b>	Restore printer settings to factory defaults.
<b>Firmware Upgrade</b>	Download and install printer firmware upgrade files.

## Security tab

Refer to the table for settings in the **Security** tab.

**Table 1-23 HP Embedded Web Server Security tab**

Menu	Description
<b>General Security</b>	Settings for general security, including the following: <ul style="list-style-type: none"> <li>• Configure an administrator password to restrict access to certain features on the printer.</li> <li>• Set a custom device Service Access Code.</li> <li>• Set PJL password for processing PJL commands.</li> <li>• Set file system access and firmware upgrade security.</li> <li>• Enable or disable the Host USB port on the control panel or the USB connectivity port on the formatter for printing directly from a computer.</li> <li>• View the status of all security settings.</li> </ul>
<b>Account Policy</b>	Enable administrator account settings.
<b>Access Control</b>	Configure access to printer functions for specific individuals or groups, and select the method individuals use to sign in to the printer.
<b>Protect Stored Data</b>	Configure and manage the internal storage for the printer.  Configure settings for jobs that are stored on the printer internal storage.
<b>Manage Remote Apps</b>	Manage or whitelist remote apps by importing or deleting certificates that allow devices to use this product.
<b>Certificate Management</b>	Install and manage security certificates for access to the printer and the network.
<b>Email Domain Restriction</b>	If email functionality is enabled, administrators can limit the email addresses to which the printer can send messages.
<b>Web Service Security</b>	Allow resources on this printer to be accessed by web pages from different domains. If no sites are added to the list, then all sites are trusted.
<b>Self Test</b>	Verify that the security functions are running according to expected system parameters.

## HP Web Services tab

Use the **HP Web Services** tab to configure and enable HP Web Services for this printer. It is necessary to Enable HP Web Services to use the HP ePrint feature.

**Table 1-24** HP Embedded Web Server HP Web Services tab

Menu	Description
<b>Web Services Setup</b>	Connect this printer to HP Connected on the web by enabling HP Web Services.
<b>Web Proxy</b>	Configure a proxy server if there are issues enabling HP Web Services or connecting the printer to the Internet.
<b>HP JetAdvantage</b>	Access solutions that extend the capabilities of the printer
<b>Smart Cloud Print</b>	Enable Smart Cloud Print, which allows access to web-based apps that extend the capabilities of the printer.

## Networking tab

Use the **Networking** tab to configure and secure network settings for the printer when it is connected to an IP-based network. This tab does not display if the printer is connected to other types of networks.

**Table 1-25** HP Embedded Web Server Networking tab > Configuration settings

Menu	Description
<b>Wireless Station</b>	Configure the initial wireless settings.  <b>NOTE:</b> The configuration options available depend on the print server model.
<b>Wi-Fi Direct</b>	Configure Wi-Fi Direct settings for printers that include embedded Wi-Fi Direct Print and NFC printing or that have a wireless accessory installed.  <b>NOTE:</b> The configuration options available depend on the print server model.
<b>TCP/IP Settings</b>	Configure TCP/IP settings for IPv4 and IPv6 networks.  <b>NOTE:</b> The configuration options available depend on the print server model.
<b>Network Settings</b>	Configure IPX/SPX, AppleTalk, DLC/LLC, and SNMP settings, depending on the print server model.
<b>Other Settings</b>	Configure general printing protocols and services supported by the print server. The available options depend on the print server model, but can include firmware update, LPD queues, USB settings, support information, and refresh rate.
<b>AirPrint</b>	Enable, set up, or disable network printing from Apple-supported printers.
<b>Select Language</b>	Change the language displayed by the HP Embedded Web Server. This page displays if the web pages support multiple languages. Optionally, select supported languages through language-preference settings in the browser.
<b>Select Location</b>	Select a country/region for the printer.

**Table 1-26** HP Embedded Web Server Networking tab > Google Cloud Print settings

Menu	Description
<b>Setup</b>	Set up Google Cloud Print options.
<b>Web Proxy</b>	Configure proxy settings.

**Table 1-27 HP Embedded Web Server Networking tab > Security settings**

Menu	Description
<b>Settings</b>	<p>View and restore current security settings to factory-default values.</p> <p>Configure security settings using the Security Configuration Wizard.</p> <p><b>NOTE:</b> Do not use the Security Configuration Wizard to configure security settings if using network-management applications, such as HP Web Jetadmin.</p>
<b>Authorization</b>	<p>Control configuration management and use of this printer, including limiting host access to this printer through an Access Control List (ACL) (for selected print servers on IPv4 networks only).</p>
<b>Secure Communication</b>	<p>Configure Transport Layer Security (TLS) protocol and encryption options.</p>
<b>Mgmt. Protocols</b>	<p>Configure and manage security protocols for this printer, including the following:</p> <ul style="list-style-type: none"><li>• Set the security management level for the HP Embedded Web Server, and control traffic over HTTP and HTTPS.</li><li>• Configure the SNMP (Simple Network Management Protocol) operation. Enable or disable the SNMP v1/v2c or SNMP v3 agents on the print server.</li><li>• Control access through protocols that may not be secure, such as printing protocols, print services, discovery protocols, name resolution services, and configuration-management protocols.</li></ul>
<b>802.1X Authentication</b>	<p>Configure 802.1X authentication settings on the Jetdirect print server as required for client authentication on the network, and reset the 802.1X authentication settings to factory-default values.</p> <p><b>CAUTION:</b> When changing the 802.1X authentication settings; the printer might lose its connection. To reconnect, it might be necessary to reset the print server to a factory-default state and reinstall the printer.</p>
<b>IPsec/Firewall</b>	<p>View or configure a Firewall policy or an IPsec/Firewall policy.</p>
<b>Announcement Agent</b>	<p>Enable or disable the HP Device Announcement Agent, set the configuration server, and configure mutual authentication using certificates.</p>

**Table 1-28 HP Embedded Web Server Networking tab > Diagnostics settings**

Menu	Description
<b>Network Statistics</b>	<p>Display network statistics that are collected and stored on the HP Jetdirect print server.</p>
<b>Protocol Info</b>	<p>View a list of network-configuration settings on the HP Jetdirect print server for each protocol.</p>
<b>Configuration Page</b>	<p>View the HP Jetdirect configuration page, which contains status and configuration information.</p>

---

## 2 Open the HP Embedded Web Server (EWS)

Learn how to look up the printer's IP address and access the EWS.


### Overview

The HP Embedded Web Server (EWS) is included in the printer firmware for HP printers. This document is specific to HP Enterprise or HP Managed printers. Use the EWS to view the printer status, and to configure and manage the printer remotely without having to access the control panel.




### Open the HP Embedded Web Server (EWS)

To learn how to open the EWS, follow these steps:

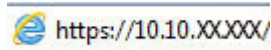
---

 **NOTE:** Typically, a system administrator sets a password to secure the printer. If you are unable to access the EWS or certain tabs, contact your system administrator.

---


1. Have the printer IP address or host name available.
  - **FutureSmart 3:** From the Home screen on the printer control panel, touch the Network icon  to display the IP address or host name.
  - **FutureSmart 4:** From the Home screen on the printer control panel, touch the Information icon , and then touch the Ethernet icon  to display the IP address or host name.
2. Open a web browser.
3. In the url field, type the IP address or host name of the printer as displayed following the above instructions, and then press `Enter`.

**Figure 2-1** Example of an IP address in a browser window




4. If the web browser displays a message indicating that accessing the website might not be safe, select the option to continue to the website.

---

 **NOTE:** Accessing this website will not harm the computer. This message is received if the printer enforces HTTPS.

---

The EWS opens.

- On standard desktops, the tabs for the EWS are available across the top of the page.
- On small, narrow devices such as phones, the tabs are collapsed and not immediately visible. To open the tabs, use the menu icon .

For more information about a specific page in the EWS, click the **Help** link located in the upper-right corner of the page. Some pages in the EWS do not have a **Help** link.

For more information about the EWS, watch the following video.



[Introduction to the HP Embedded Web Server](#)

---

# 3 Customize the control panel and EWS appearance

Learn how to customize the printer's control panel and the information shown in the EWS.

## Customize the Control-Panel Home screen

Learn about the options for customizing the control-panel Home screen.

### Introduction

It is quick and easy to configure a printer's control panel. Configure the Home screen to save both time and money on frequently-performed tasks.

The following control-panel Home screen options can be customized:

- Which menu options display
- The order in which the menu options display
- The background that displays.
- The connection information that displays
- Language selection and languages that display
- Keyboard layouts

To restrict the ability to customize the control-panel display only to administrators, assign an administrator password.



**NOTE:** This feature requires JavaScript®. Verify that JavaScript is enabled for the browser being used.

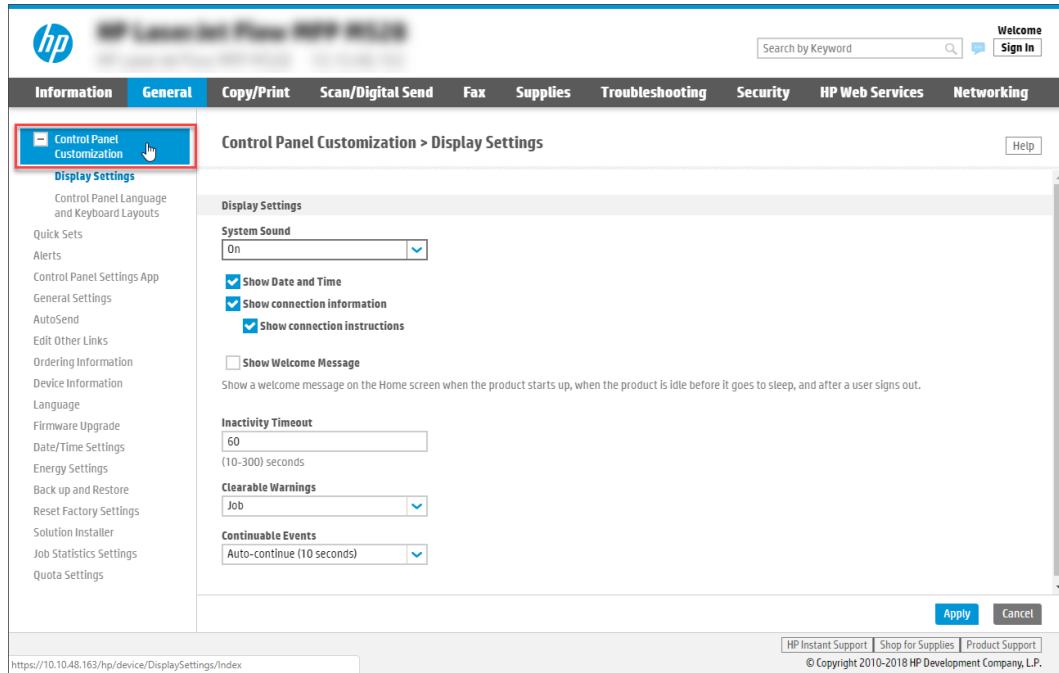
### Navigate to the Control Panel Customization menu

Use the following steps to locate the **Control Panel Customization** menu.

1. Using the top navigation tabs, click **General**.

2. In the left navigation pane, click **Control Panel Customization**, and then complete one or more of the procedures that follow in this document.

**Figure 3-1** Control Panel Customization menu



## Change the items that display on the Home screen

Use the following information to change the menu items shown on the control panel Home screen.

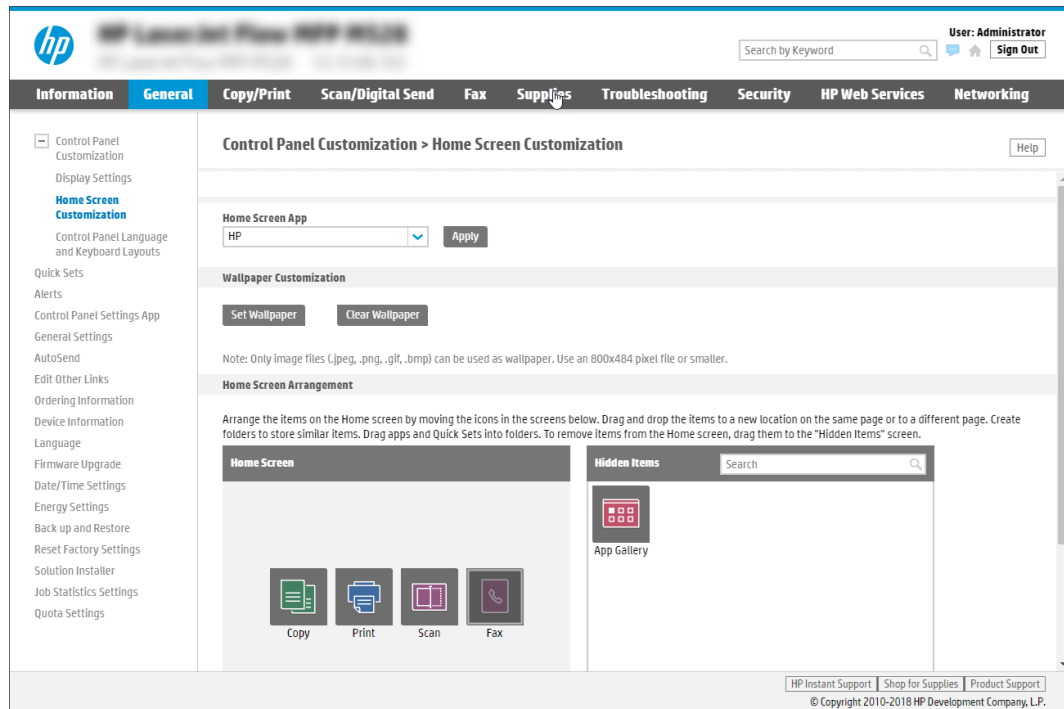
View a video on how to change the menu items that display on the Home screen, and/or follow the steps below.




[View a video on how to change the menu items that display on the Home screen.](#)

1. Under the **Control Panel Customization** menu, click **Home Screen Customization**.

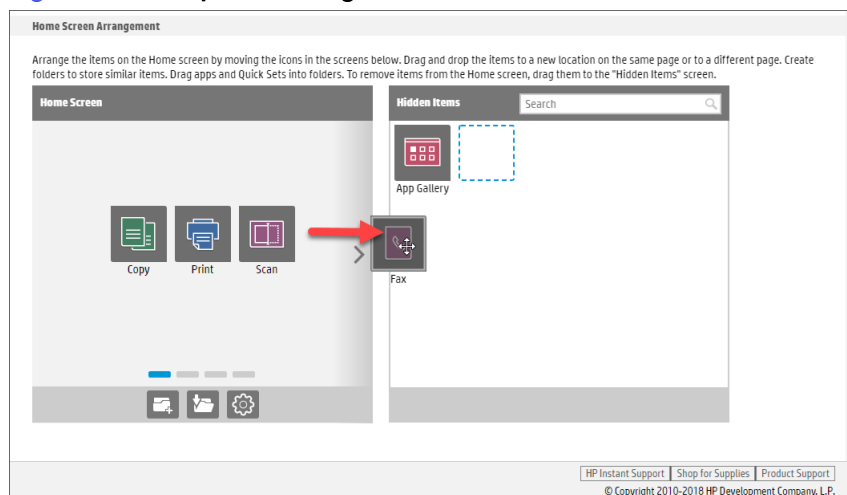
**Figure 3-2** Home Screen Customization page



 **NOTE:** To use a different application for the Home screen, use the **Home Screen App** list to select the app, and then click **Apply**.

2. Use the **Home Screen Arrangement** section to hide or show items on Home screen as follows:
  - To hide a menu item: Click and hold the cursor over the menu item to be hidden, drag the item to the **Hidden Items** section, and then release the mouse button.
  - To show a hidden item: Click and hold the cursor over the menu item to be shown, drag the item to the **Home Screen** section, and then release the mouse button.

**Figure 3-3** Example of moving a menu item to Hidden Items




3. (Optional) In the **Home Screen** section, use the Folder and Configuration icons at the bottom of this section to add a folder, move an item into a folder, or access the setup page for an item.

**Figure 3-4 Folder and Configuration icons**



4. FutureSmart 3: Click the **Apply** button at the bottom of the EWS window to save the changes.  
FutureSmart 4: The updates are automatically saved.

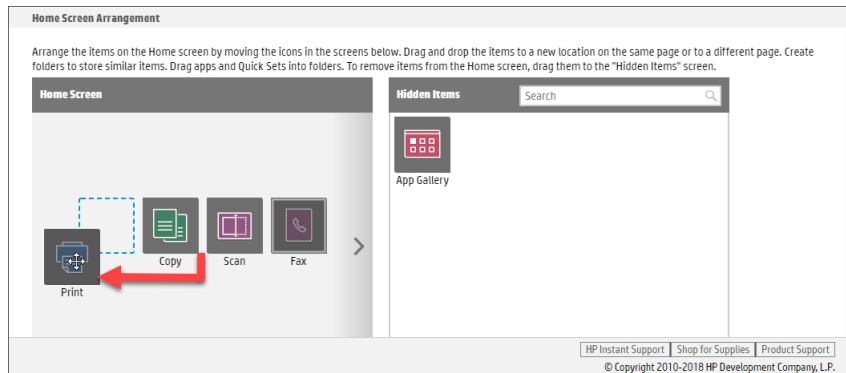
 **NOTE:** The **Quick Sets** menu item must be displayed on the Home screen to use Quick Sets.

## Change the order in which the items appear on the Home screen

Use the following steps to change the order in which menu items appear.

1. On the **Home Screen Customization** page, click and hold the cursor over a menu item to be moved.
2. Drag the menu item to the new location, and then release the mouse button.

**Figure 3-5 Example of moving a menu item**



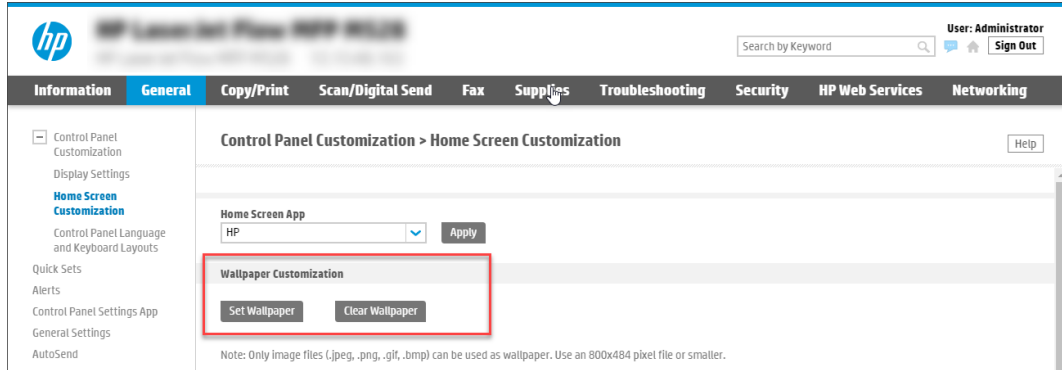
3. FutureSmart 3: Click the **Apply** button at the bottom of the EWS window to save the changes.  
FutureSmart 4: The updates are automatically saved.

## Change the Home screen background

Use the following steps to change the Home screen background.

1. On the **Home Screen Customization** page, locate the **Wallpaper Customization** section. This section shows you which file types are supported as well as the maximum file resolution.

**Figure 3-6** Wallpaper Customization section



2. To set wallpaper, click **Set Wallpaper**, browse to the image file, and then click **Open**.



**NOTE:** The wallpaper image is placed with the top-left corner of the picture in the top-left corner of the control panel.

To clear wallpaper, click **Clear Wallpaper**.

## Set the Home screen font color and effect

Use the following steps to set the Home screen font color and text effects.

1. On the **Home Screen Customization** page, locate the **Wallpaper Customization** section.
2. Select the **Enable Wallpaper Customization** check box.
3. Under **Home Screen App Font Color**, select **Black** or **White**.
4. Under **Text Effects**, select effects to apply to the text on the home screen.
5. Click **Apply** to save the changes.

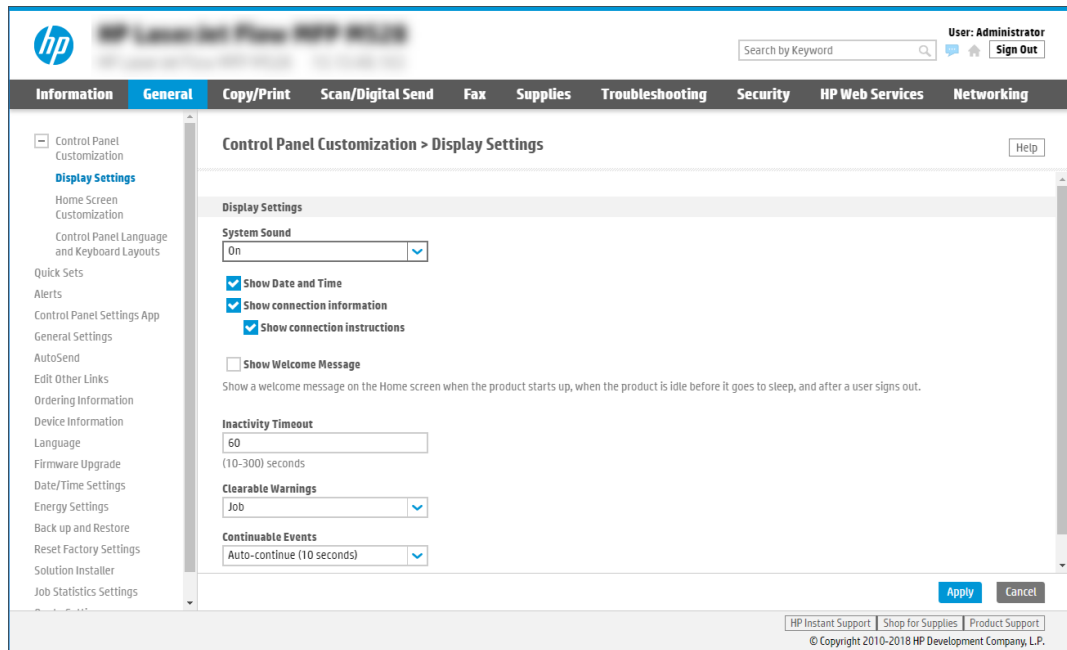
## Change the display settings

The date and time display on many control-panel screens. Information such as fax number, IP address, and HP ePrint address, as well as instructions on how to connect to the product display in the **How to Connect** menu by default. Use the following procedure to control which information displays in these areas.

1. Under the **Control Panel Customization** menu, click **Display Settings**.

2. On the **Display Settings** page, select or deselect the individual options.

**Figure 3-7** Display Settings page



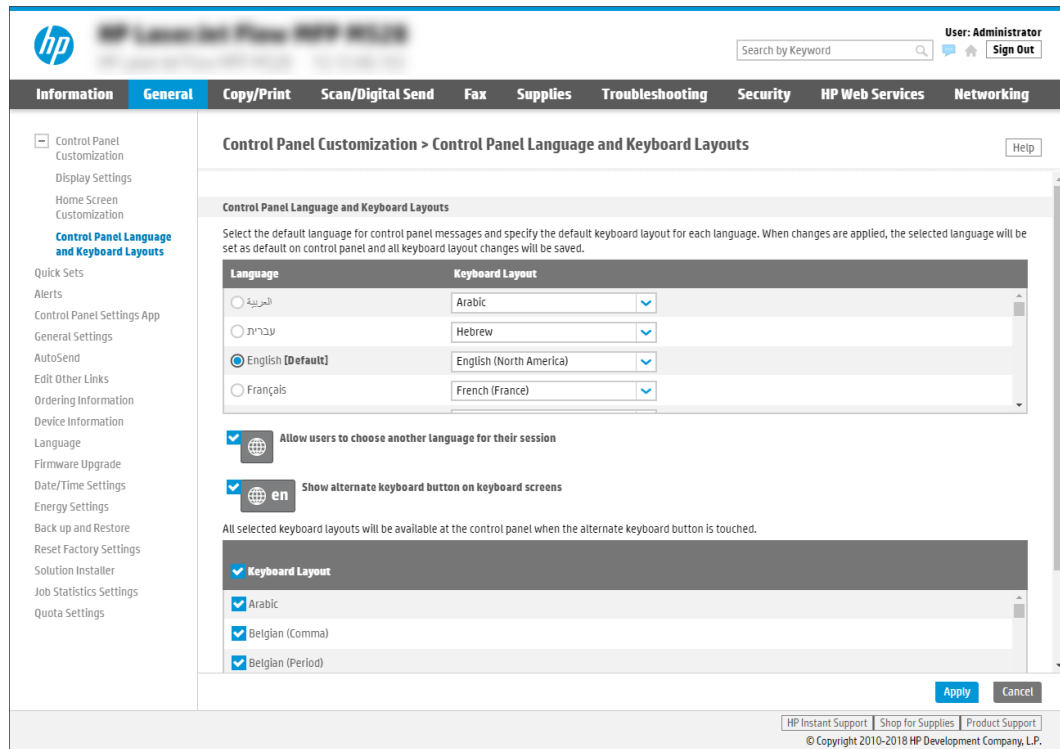
3. Click the **Apply** button at the bottom of the EWS window to save the changes.

## Change the control-panel language and keyboard layout

Use the following steps to change the language and keyboard layout.

1. Under the **Control Panel Customization** menu, click **Control Panel Language and Keyboard Layouts**.

**Figure 3-8** Control Panel Language and Keyboard Layouts page



2. Select the radio button next to the preferred default language from the **Language** column.
3. Select the preferred keyboard layout from the **Keyboard Layout** drop-down menu.
4. Enable or disable the **Allow users to choose another language for their session** option.
5. Enable or disable the **Show alternate keyboard button on keyboard screens** option, and then select the languages to display. If the feature is enabled, select the preferred keyboard layouts.

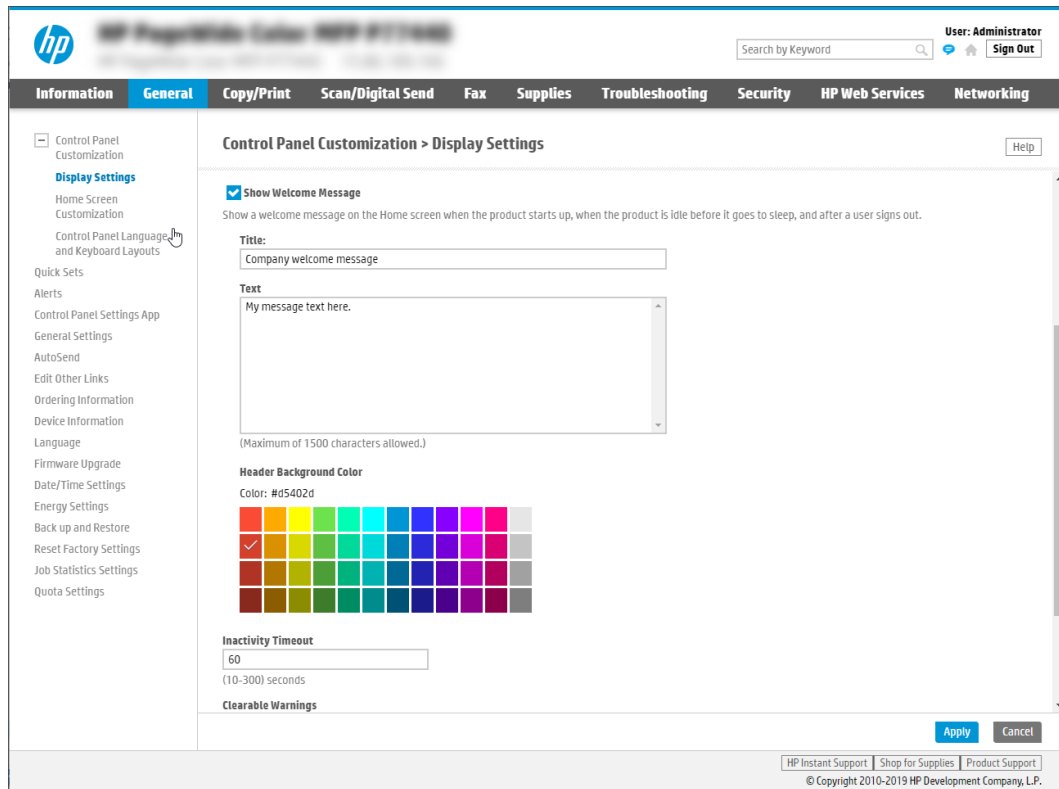
## Create a custom welcome screen

Use this procedure to select the screen-border color and the text that displays while the product is inactive.

1. Under the **Control Panel Customization** menu, click **Display Settings**.
2. On the **Display Settings** page, select **Show Welcome Message**.

3. Enter a title in the **Title:** field, enter the message into the **Text:** field, and then select a color from the **Header Background Color** choices.

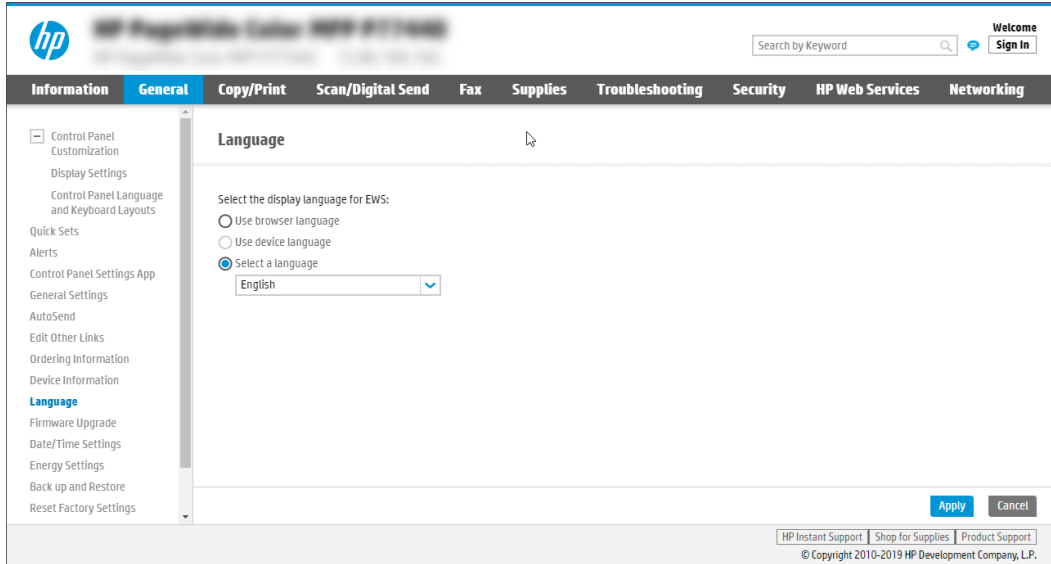
Figure 3-9 Welcome Message settings



## Configure the EWS display language

Use the **Language** page, located in the **General** tab to control which language the EWS uses. You can set up the EWS to use the web browser language, the language that the printer is using, or another language.

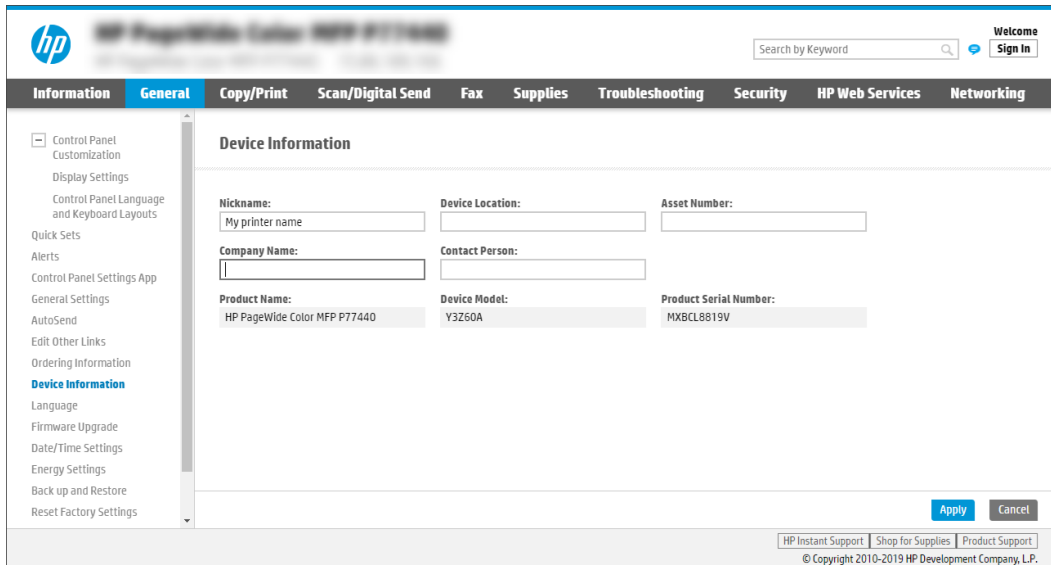
Figure 3-10 Language page



## Customize the information shown on the Device Information page

Use the **Device Information** page in the **General** tab to edit the device information. This information will then be displayed on the **Device Information** page in the **Information** tab.

Figure 3-11 Device Information page

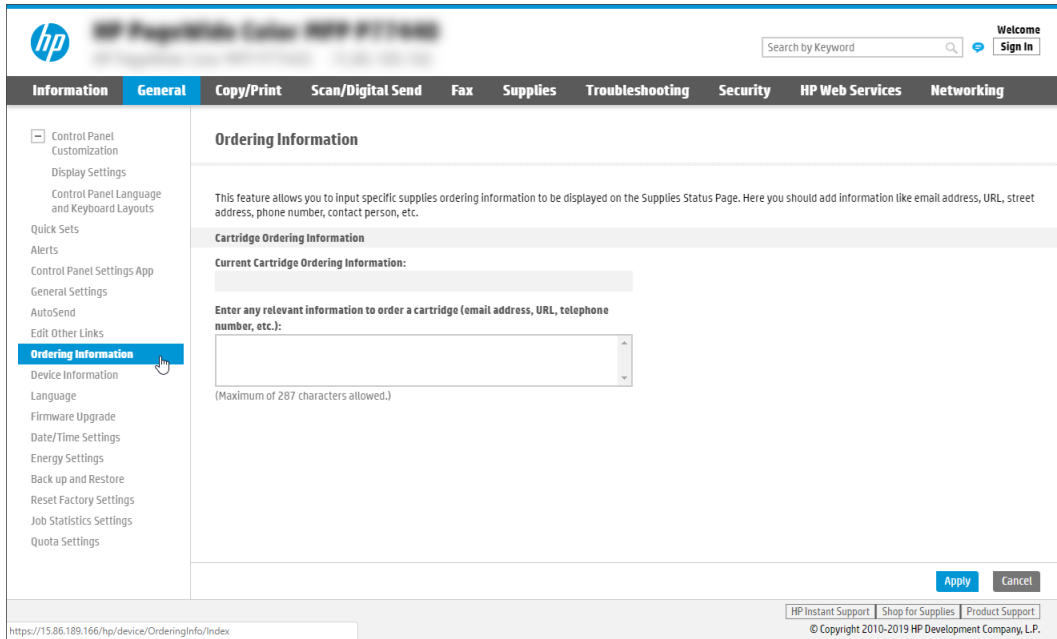


## Customize the ordering information shown on the Supplies page

Use the **Ordering Information** page, located in the **General** tab, to add specific supplies-ordering information that is displayed on the **Supplies Status Page** page.

To view the printer-specific supply information that can be added on this page, click **Shop for Supplies** at the bottom of the page.

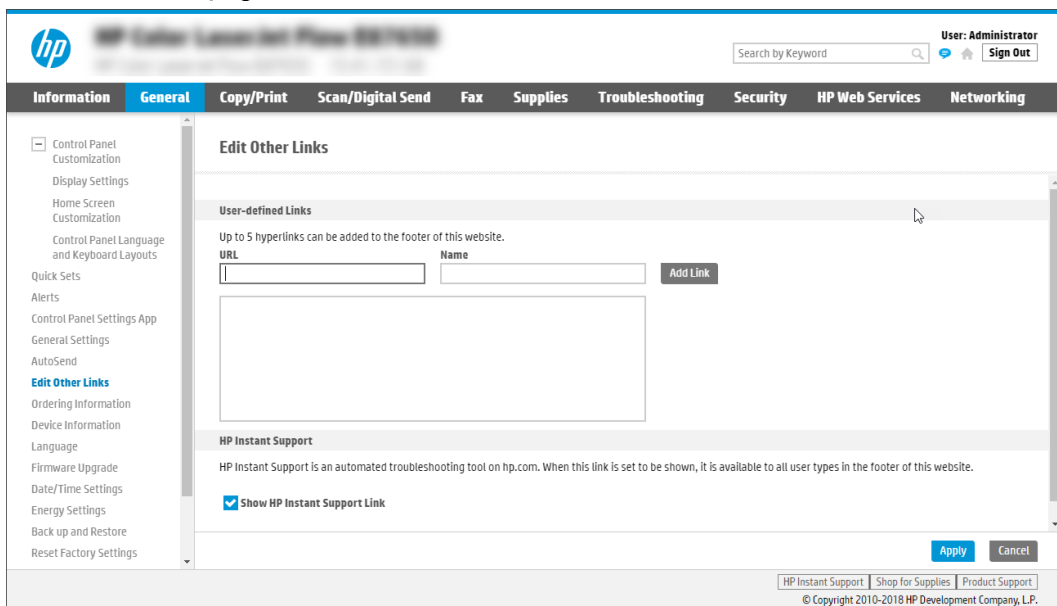
Figure 3-12 Ordering Information page



## Add links to the bottom of an EWS screen

By default, the HP EWS webpage contains links to the HP Instant Support, Shop for Supplies, and Product Support websites. Use the **Edit Other Links** page, located in the **General** tab, to add up to five additional links to the footer of the EWS page.

Figure 3-13 Edit Other Links page



# Configure the EWS Help options

Use the **Online Help** page, located in the **Troubleshooting** tab, to configure settings for the EWS online help.

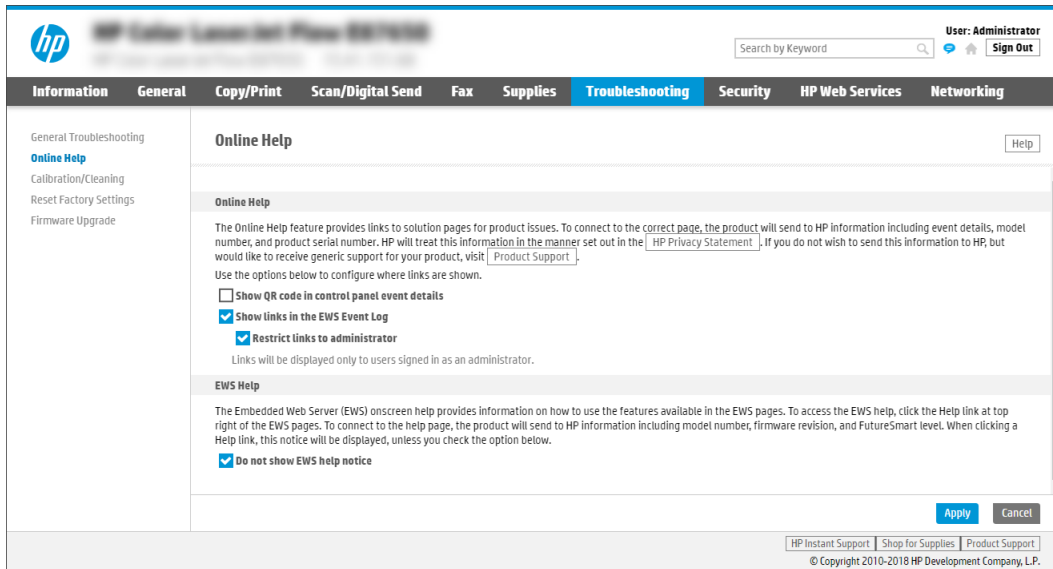
To configure where Help links are shown for events, select or clear the following options (for Admin users only):

- **Show QR code in control panel event details**
- **Show links in the EWS Event log**

To connect to the correct Help page, the product sends information to HP including the model number, firmware revision, and FutureSmart level. When clicking a Help link, a notice is displayed, which allows the user to continue or cancel.

To turn off this notice, select **Do not show EWS help notice**.

Figure 3-14 Online Help page



---

## 4 Configure the network to which a printer is attached

Configure the network using the **Networking** tab in the EWS.

### Introduction

This Help provides an overview of the Embedded Web Server (EWS) interface provided by the HP Jetdirect print server. For detailed help, see the following resources:

- The HP.com support Web page: [www.hp.com/support](http://www.hp.com/support)
- The Administrator's Guide or other documentation for *this* print server model. These documents are typically provided on CD-ROM with each Jetdirect product.
- The printer's *User Guide* or other documentation supplied with your network device.

The Embedded Web Server provides a simple way to manage your HP Jetdirect print server or attached network device (such as a printer or multifunction, all-in-one peripheral). Using your Web browser, you can monitor status, configure network parameters, or access device features. Tabs across the top of the interface provide access to device and networking pages.

The tabs and functions displayed will vary depending on your print server model and the capabilities of the attached device. For example, the Jetdirect print server will provide a generic Home tab if the attached device does not supply Web pages. In addition, features that are displayed for full-featured print servers may not be available for value-based print servers.

Menu items in the left margin for each tab provide links to configuration and status pages.

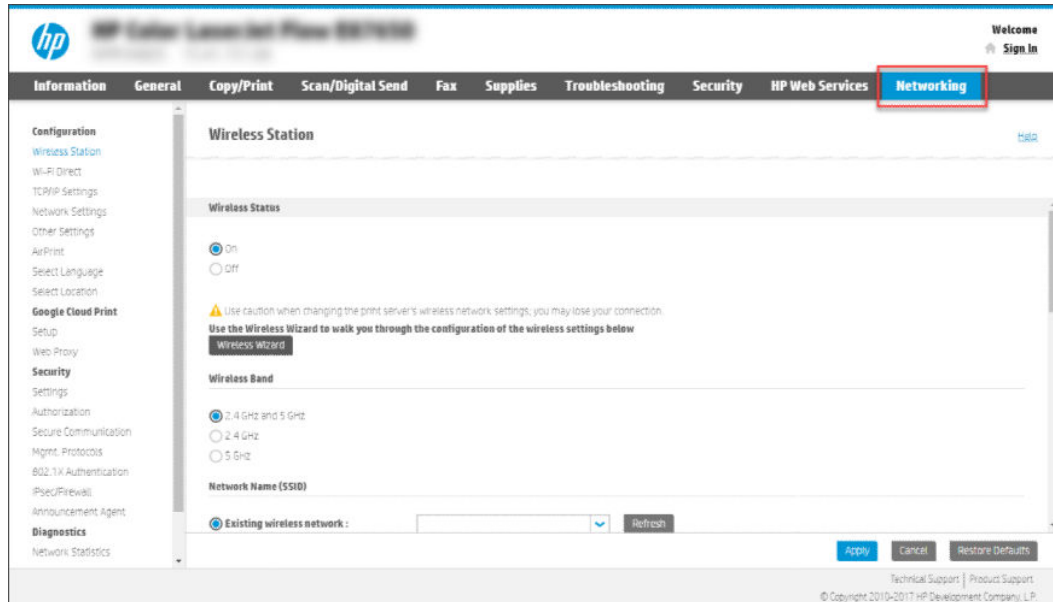
### Home Tab

A special Home tab will be displayed by the Jetdirect print server only for printers or devices that do not support EWS services. The print server will attempt to display basic networking and device information that can be retrieved.

### Networking Tab

This tab provides access to network configuration, security, and diagnostic parameters on the HP Jetdirect print server.

Figure 4-1 Networking tab



## Configuration

Use these menu items to set general network configuration parameters.

### Wireless Station

(Wireless print servers only.) Use this page to configure wireless station connection settings required by your network. You can manually configure the settings, or run a wizard that guides you through the wireless configuration process. Typically, you will provide the following information about your wireless network:

- Wireless network name (SSID) and network topology. Ad hoc and channel 11 are selected by default.
- Network security. Select from no security, WEP - Personal, WEP - Enterprise, WPA/WPA2 - Personal, or WPA/WPA2 - Enterprise.

WEP - Personal. Select the authentication (Open System, Shared Key, or Automatic), and enter the WEP key and key index.

WEP - Enterprise. Select the protocol (LEAP, PEAP, and EAP-TLS), and the user name, password, server ID, encryption strength, and certification details.

WPA/WPA2 - Personal. Enter the passphrase.

WPA/WPA2 - Enterprise. Select the protocol (Auto, LEAP, PEAP, or EAP-TLS), and enter the user name, password, server ID, encryption strength, and certification details.

### Wi-Fi Direct

HP Wi-Fi Direct is a feature that allows your Wi-Fi capable devices to make a wireless network connection directly to your printer without using a wireless router or access point. A print application must be installed in order to use the printer over the HP Wi-Fi Direct connection.

- **Wi-Fi Direct Name:** The unique name of the printer given by the user. This name is used to identify the printer in the wireless network.

- **Connection Method:**
  - **Advanced:** This connection method includes security features such as hiding the Wi-Fi Direct name in addition to authentication by the user.
  - **Manual:** This connection method requires simple authentication by the user using a password.
  - **Auto:** There will be no authentication. The mobile device can connect automatically to the printer and print the document.
- **Password:** The password given by the user for Advanced and Manual connections.
- **Channel:** Allows the user to choose the frequency band at which the printer operates.
- **IP Address:** IP address to access the printer wirelessly.
- **Connected Clients:** Identifies the IP addresses of the Connected Clients.

## Wireless Direct

HP Wireless Direct is a feature that allows your Wi-Fi capable devices to make a wireless network connection directly to your printer without using a wireless router or access point. A print application must be installed in order to use the printer over the HP Wireless Direct connection.

- **Wireless Direct Printing:** Turn Wireless Direct Printing On/Off. User can enable it with either of two options: On (No Security) or On (With Security).
- **Network Name (SSID):** The unique name of the network given by the user, used to identify the printer in the wireless network.
- **Allow Broadcast of Name (SSID):** Allows the user to advertise or hide the network name.
- **Passphrase:** The password given by the user when Wireless Direct Printing is enabled with Security.
- **Channel:** Allows the user to choose among the channels which operate on 2.4 GHz frequency band.
- **IP Address:** IP address to access the printer wirelessly.
- **Connected Clients:** Identifies the IP Addresses of the Connected Clients.

## TCP/IP Settings

The configuration options available depend on your print server model. Use the tabs on this page to view or configure TCP/IP (Transmission Control Protocol / Internet Protocol) settings for IPv4 and IPv6 networks.

**Summary.** Provides a summary of the current TCP/IP configuration settings.

**Network Identification.** Provides access to identification settings such as the hostname, IPv4/IPv6 Domain Names, FQDN update options, DNS and WINS(IPv4) server addresses, and Bonjour Service Name.

**HP Connection Inspector.** An Intrusion Detection technique that focuses on identifying malwares based on their behavioral patterns rather than on their signatures. This focuses particularly on detecting and preventing malwares based on their network behaviors. Select the **Enable** check box to enable this feature.

- **Protection Mode settings**

- **DNS Failure Threshold** - Failure threshold value to enable throttle mode for detecting false alarms.
- **Monitoring Window** - Time duration to monitor failed DNS queries for enabling throttle mode.
- **Protected Mode Duration** - (Throttle mode duration) The duration where the printer operates in a safe mode after and initial detection.
- **Remediation settings**
  - **Number of Times in a Protected Mode** - Maximum number of times the printer can enter into Throttle mode before remediation action.
  - **Cumulative Protected Mode Duration** - Maximum duration the printer can be in Throttle mode before remediation action.
- **Advanced settings**
  - **White List / Exception List** - White list table entries are considered as safe DNS queries during throttling mode.
- **Restore settings**
  - To restore HP Connection Inspector to default values, click the **Restore Defaults** button.



**NOTE:** If you enter a value, click **Apply** to set it, or click **Cancel** to ignore the entry.

**USE CAUTION** when changing IP addresses; the connection to the Embedded Web Server will be closed, and client printing may be affected. To re-establish a connection, use the new IP address.

TCP/IP cannot be disabled. It is required for communication with the Embedded Web Server.

**TCP/IPv4.** Allows you to configure IP version 4 (IPv4) parameters, including server-based or manual IPv4 address settings. For Auto IP, a link-local address is assigned automatically by the print server.

**TCP/IPv6.** Allows you to configure IP version 6 (IPv6) parameters, including server-based or manual IPv6 address settings. Multiple IPv6 addresses may be configured. A stateful address may be assigned, for example, from a DHCPv6 server. A stateless address, such as a link-local address, is assigned automatically by the print server.

**Config Precedence.** Provides access to a configuration precedence table, to indicate which configuration method has precedence over another.

**Advanced.** Provides access to other TCP/IP network settings, including idle timeout, LPD banner page, FQDN Update Options, Web Proxy Server and Syslog Server settings. You can also enable HP Customer Care Center logging.

**Web Proxy Setup** - Use this page when you must manually configure a proxy server for use with HP Web Services. This might be necessary if you have issues when enabling HP Web Services.

**Proxy Server.** Proxy server to use by embedded applications in your printer/MFP. Enter up to 64 alphanumeric characters. A proxy server is typically used by network clients for Internet access. It caches Web pages and provides a degree of Internet security for those clients. Enter its IP address or FQDN. On some networks, you might need to contact your ISP for the proxy server address.

**Proxy Server Port.** Port number used by the proxy server for client support. Enter a value from 0 to 65535. The port number identifies the port reserved for proxy activity on your network.

**Proxy Server User Name.** If a user account is set on the proxy server, enter the user name.

**Proxy Server Password.** If a user account is set on the proxy server, enter the user password.

**Proxy Server Exception List.** Web addresses, host names, or domain names not requiring access through the proxy server. Use a semicolon (;) to separate addresses.

## Network Settings

Use the tabs on this page to configure other network protocols. Depending on the print server model, you can view or configure SNMP settings.

If you enter a value, click **Apply** to set it, or click **Cancel** to ignore the entry.

**SNMP:** Configure SNMP (Simple Network Management Protocol) operation. You may enable or disable the SNMP v1/v2c or SNMP v3 agents on the print server. For SNMP v1/v2c, you can choose to control access through custom SNMP community names and selectable options for the Get Community Name "public". For SNMP v3, you may set up an account that allows a management application to access the SNMP v3 agent.

## Other Settings

Use the tabs on this page to configure general printing protocols and services supported by the print server. Depending on the print server model, you can configure the following items:

**Misc. Settings.** Enable or disable printing protocols and services. In addition, you can set 10/100/1000Base-T Link settings, assign a locally administered address, configure networking features for supported multifunction/scanning devices, determine name resolution, specify Bonjour priority service, and whether to clear device settings (Erase Data) during a cold reset.

**Firmware Upgrade.** Upgrade your HP Jetdirect print server firmware. (For print servers that support firmware upgrades.)

**LPD Queues.** Set up custom LPD (Line Printer Daemon) queues for printing.

**USB Settings.** (For HP Jetdirect external print servers with a USB printer port.) Configure Universal Serial Bus port parameters for communications between the print server and connected device. The configurable parameters available depend on the HP Jetdirect model and firmware version.

**Support Info.** Specify the **Support** page links. Designate a Support contact or phone number, or specify URL addresses for product and technical support.

**Refresh Rate.** Specifies the time interval (in seconds) for embedded Web page updates. To disable the refresh rate, set this value to 0 (zero).

## AirPrint

AirPrint™ enables easy network printing from Apple supported products with no need to install drivers or download software. AirPrint works on wireless and wired networks and over USB. AirPrint **MUST** be either enabled by default or the Printer **MUST** have a single top-level menu item that enables all network interfaces, networking services, and printing protocols required by AirPrint. The user can modify the AirPrint settings parameter using Edit settings page.

- **Device Name:** A unique name given to the printer by the User. The default name is the Bonjour Service name of the printer.
- **Device Location:** Describes the location of the printer.
- **Use Degrees Minutes Seconds:** Describes the exact location of the printer by mentioning latitude and longitude coordinate values in Degrees, Minutes, and Seconds (DMS).

- Use Decimal degrees: Describes the exact location of the printer by mentioning latitude and longitude coordinate values in Decimal Degrees, (DD).

## Select Language

This page appears if the Web pages support multiple languages. (Optionally, supported languages can be selected through language preference settings in your browser. See your browser's Help).

## Google Cloud Print

Learn how to set up Google Cloud Print.

### Before you begin

Before you can set up Google Cloud Print, the *HP printer must be connected to a network with an active internet connection*. The Google Cloud Print feature will not work if the HP printer is not connected to a network.

### Setup

The printer has a feature that allows you to configure Google Cloud Print with your HP printer using the HP Embedded Web Server (EWS). Google Cloud Print allows you to print to your printer from anywhere with any web-connected device, such as your computer, phone, or tablet.

#### Step one: Print the claim sheet

Before setting up the printer to use Google Cloud Print, you will need to print the Claim Sheet, which contains a Claim URL and QR Code that are both generated by Google.

1. Using the EWS top navigation tabs, click **Networking**.
2. In the left navigation pane, under **Google Cloud Print**, click **Setup**. The **Setup** page will indicate the Google Cloud Print status as **Not Registered** and provide a **Print Claim Sheet** button.
3. Click the **Print Claim Sheet** button to send printer capabilities and model number to Google and print a sheet of registration instructions from Google.



**NOTE:** A **Communicating with Google Cloud** message displays on the screen. DO NOT leave this page until the process completes, which can take up to two minutes.

---

4. When the claim sheet is retrieved from the Google Cloud, the EWS will indicate that the sheet will print and prompt you to follow the instructions.



**CAUTION:** Registration must be completed within 15 minutes of printing the claim sheet, otherwise you will have to repeat this process.

---

5. Click **OK**.

#### Step two: Complete Google Cloud Print registration

Use the following procedures to complete Google Cloud Print registration.

#### Cancel registration

You can choose to cancel the Google Cloud Print registration after you have printed the claim sheet. Click the **Cancel Setup** button, and then click **Yes** to confirm.

## Complete the registration

Follow the instructions on the printed claim sheet to complete registration on a Google account.

When the registration is complete, the **Google Cloud Print** page will indicate the Google Cloud Print status as **Registered** and provide a **Remove Google Cloud** button.

The **Troubleshooting** area provides an option to **Disable PDF Printing** on Google Cloud Print jobs in order to resolve print errors. Select this check box if jobs fail to print; however, this can cause images and fonts to look slightly rougher.

## Registration when an admin password is set

If the system admin password is set on the device, you must enter in the admin password to have access to the following:

- Google Cloud Print page in the EWS
- Control Panel menu to complete a registration for Google Cloud Print (Magic Frame displays only)
- Control Panel menu to Print the Info Sheet (2 line displays only)

## Privet or local registration

Privet or local registration is initiated from your Chromebook and not the printer control panel or EWS.

During Privet registration, the EWS displays a "A registration request has been sent to this printer" message. To complete registration, go to the printer control panel and press **OK**. The display should show a "Press [OK] to allow <username>@gmail.com to register this printer with Google Cloud Print" message. Touch **OK**.

## Remove Google Cloud Print

When the printer is registered with a Google account, the EWS **Google Cloud Print** page will say that Google Cloud Print is **Registered**. Click the button to remove your printer from Google Cloud Print, and then click **Yes** to confirm.

## Web Proxy

**Web Proxy Setup** - Use this page when you must manually configure a proxy server for use with HP Web Services. This might be necessary if you have issues when enabling HP Web Services.

**Proxy Server.** Proxy server to use by embedded applications in your printer/MFP. Enter up to 64 alphanumeric characters. A proxy server is typically used by network clients for Internet access. It caches Web pages and provides a degree of Internet security for those clients. Enter its IP address or FQDN. On some networks, you might need to contact your ISP for the proxy server address.

**Proxy Server Port.** Port number used by the proxy server for client support. Enter a value from 0 to 65535. The port number identifies the port reserved for proxy activity on your network.

**Proxy Server User Name.** If a user account is set on the proxy server, enter the user name.

**Proxy Server Password.** If a user account is set on the proxy server, enter the user password.

**Proxy Server Exception List.** Web addresses, host names, or domain names not requiring access through the proxy server. Use a semicolon (;) to separate addresses.

If you enter a value, click **Apply** to set it, or click **Cancel** to ignore the entry.

**Please note:**

- **USE CAUTION** when changing IP addresses; the connection to the Embedded Web Server will be closed, and client printing may be affected. To re-establish a connection, use the new IP address.
- TCP/IP cannot be disabled. It is required for communication with the Embedded Web Server.

## Security

The security features that may be configured depend on your particular HP Jetdirect print server model.

## Settings

This page provides a tab to run the Security Configuration Wizard, an interactive utility that will help you configure security settings.

**Please note:** Do **not** use the Security Configuration Wizard if you configure security settings using network management applications, such as HP Web Jetadmin.

In addition, tabs to view current settings and to restore security settings to factory-default values are also provided.

## Authorization

This page provides methods to control configuration management and use of this device.

**Certificates.** Request, install, and manage digital certificates on the HP Jetdirect print server. Certificates are used to identify the Jetdirect print server both as a valid Web server for network clients, and as a valid client requesting access on a secure network. By default, the Jetdirect print server contains a self-signed preinstalled certificate. (When using the self-signed certificate, you can select an encryption key length of 1024 or 2048 bits.)

**Access Control.**(For selected print servers on IPv4 networks only) Limit host access to this device through an Access Control List (ACL). Each entry in the list consists of an IP address, and a Mask (a Mask is usually used to identify a network or group of host systems). Up to 10 entries can be entered. If the list is empty, any supported system may access the device.

If you are using a Proxy Server or Network Address Translator for your HTTP connection, ensure that HTTP connections are configured to bypass the Access Control List.

## Secure Communication

This page provides settings to securely manage the network using a Web browser and the HTTPS protocol.

To authenticate the HP Jetdirect Web Server when HTTPS is used, you can configure a certificate or use the pre-installed, self-signed X.509 Certificate. The encryption strength specifies which ciphers the Web server can use for secure communications.

**Active Ciphers.** Select the ciphers and SSL/TLS protocols that the Web server uses for secure communications.



---

**NOTE:** SSL might lose connectivity if an invalid cipher and protocol combination is configured.

---

**FIPS Configuration.** Enable Federal Information Processing Standards (FIPS) mode. This mode enforces the use of cryptographic suites and protocols to comply with the FIPS-140 standards for computer security.



---

**NOTE:** The browser might lose connectivity during the reconfiguration process.

---

**Troubleshooting Secure Communication.** Enable the logging features to record events that occur when the product makes connections (as a client) to a secure server (such as email or network folder). These records can be used for troubleshooting secure connectivity failures.

## Mgmt. Protocols

This page allows you to configure and manage security protocols for this device.

**Web Mgmt.** Set the security management level for the Embedded Web Server. You can allow traffic over both HTTP and HTTPS, or choose HTTPS only. For secure management, HTTPS (Secure HTTP) is used to ensure secure communications between a Web browser and the Embedded Web Server. For HTTPS, you may use the preinstalled Jetdirect certificate (X.509) or configure a new one, and you can select an encryption level (supported cipher suites are DES, RC4, 3DES).

The factory-default setting depends on the print server model and the features supported by the device. Typically, the default setting is to allow traffic over HTTP and HTTPS. However, for selected print server models on devices that support IPsec, the factory default requires all traffic (except IPP traffic) to use HTTPS only.

**SNMP.** Configure SNMP (Simple Network Management Protocol) operation. You may enable or disable the SNMP v1/v2c or SNMP v3 agents on the print server. For SNMP v1/v2c, you can choose to control access through custom SNMP community names and selectable options for the Get Community Name "public". For SNMP v3, you may set up an account that allows a management application to access the SNMP v3 agent.

**Other.** Enable or disable printing protocols, print services, discovery protocols, name resolution services, and configuration management protocols as desired for security. This allows you to control access through protocols that may not be secure.

## 802.1X Authentication

This page allows you to configure 802.1X authentication settings on the Jetdirect print server as required for client authentication on your network. In addition, you can reset the 802.1X authentication settings to factory-default values.

**USE CAUTION** when changing the 802.1X authentication settings; you may lose your connection. If communication with the device is lost, you may need to reset the print server to a factory-default state and reinstall the device.

Supported 802.1X authentication protocols and configuration settings depend on the print server model and firmware version. Full-featured print servers support the following protocols:

- **PEAP.** Protected Extensible Authentication Protocol (PEAP) is a mutual authentication protocol that uses digital certificates for network server authentication and passwords for client authentication.
- **EAP-TLS.** Extensible Authentication Protocol using Transport Layer Security (EAP-TLS) is a mutual authentication protocol based on digital certificates for authentication of both the client and the network authentication server.

Both PEAP and EAP-TLS use dynamic encryption keys for secure communications. If an authentication failure occurs, you can select whether to connect anyway or block access.

**Please note:** Many infrastructure components, such as LAN switches, use 802.1X protocols to control a port's access to the network. Before network installation on these ports, you must initially configure the Jetdirect print server with 802.1X settings using an isolated LAN, or directly using a cross-over cable.

## IPsec / Firewall

A Firewall or IP Security (IPsec) policy allows you to control traffic to or from the device using network-layer protocols. Either **Firewall** or **IPsec / Firewall** pages will appear depending on whether IPsec is supported by the print server and device. If IPsec is not supported, **Firewall** pages will be displayed and a Firewall policy can be configured.

**Please note:** Before you enable a Firewall or IPsec policy, you should secure access to your configuration management settings (for example, through an administrator password). This will ensure your policy is not easily disabled through Telnet, control panel menus, or other management tools.

- **Firewall.** Use this page to view or configure a Firewall policy. A Firewall policy consists of up to 10 rules, where each rule specifies the IP addresses and services allowed by the print server and device. To add a rule, click **Add Rule**. This runs a wizard that will help you configure each rule.
- **IPsec / Firewall.** (Selected HP Jetdirect models only) Use this page to view or configure an IPsec / Firewall policy. An IPsec / Firewall policy consists of up to 10 rules. As with a Firewall policy, each rule specifies the IP addresses and services allowed by the print server and device. With IPsec support, you can apply IPsec authentication and encryption protocols for those addresses and services. To add a rule, click **Add Rule**. This runs a wizard that will help you configure each rule.

For a detailed description of wizard settings and additional help, click [Jetdirect IPsec/Firewall Help](#).

## Announcement Agent

Use this page to enable or disable the HP Device Announcement Agent, to set the configuration server, and to indicate whether to require mutual authentication using certificates. When enabled (the default), the HP Device Announcement Agent sends an announcement to a configuration server when the device first connects to your network. The configuration server, such as the HP Imaging and Printing Security Center, then sends the pre-established configuration settings to the device.

## Diagnostics

Use these pages to troubleshoot or enhance network operation.

## Network Statistics

Displays network statistics that have been collected and stored on the HP Jetdirect print server. Network statistics are often useful to diagnose network performance and operational problems.

## Protocol Info

Provides a list of network configuration settings on the HP Jetdirect print server for each protocol.

## Configuration Page

Displays the HP Jetdirect configuration page, which contains HP Jetdirect status and configuration information. See the HP Jetdirect documentation on your CD-ROM for a detailed description of the configuration page contents.

## Other Links

Learn about other resources available in the **Networking** tab.

## Support

This page displays a list of resource links for additional help. The local and remote resource links on this list may be configured using the **Support Info** page. To open this page, select the **Networking** tab and choose the **Other Settings** menu, then select the **Support Info tab**.

# 5 Configure printer security

Configure printer security using the **Security** tab in the EWS.

HP recommends reviewing the following security best practices documents.

- [HP Printing Security Best Practices for HP FutureSmart Products](#)
- [HP Printers - Minimum security settings for products on the open Internet](#)

## Printer security features

Learn how to configure the printer security features using the Embedded Web Server (EWS).

### Introduction

The printer includes several security features to restrict who has access to configuration settings, to secure data, and to prevent access to valuable hardware components.


 **NOTE:** The steps vary according to the type of control panel.

Table 5-1

Firmware version	Control panels
FutureSmart 3	
FutureSmart 4	

## Video overview

View information about how to set the printer's security features.



---

**NOTE:** This video applies to multi-function printers (MFPs) with FutureSmart 4 firmware installed.

---



[View a video demonstration on how to set the security features](#)

## Security statements

The printer supports security standards and recommended protocols that help you keep the printer secure, protect critical information on your network, and simplify the way you monitor and maintain the printer.



---

**NOTE:** The EWS has a security log that provides access to device generated syslog event information. The EWS Security Log stores all generated syslog event messages to an internal file that can be exported from the device EWS Security page. For more information, see [HP FutureSmart EWS Security Log](#).

---

## Assign an administrator password

HP recommends securing the printer by setting the admin password for the EWS. If the password is not set, anyone with access to the printer can configure any setting and discover information about your network.

Some tabs, pages, and settings are available only when an administrator password is set. For more information about assigning an administrator password, see the **General Security** page on the **Security** tab.

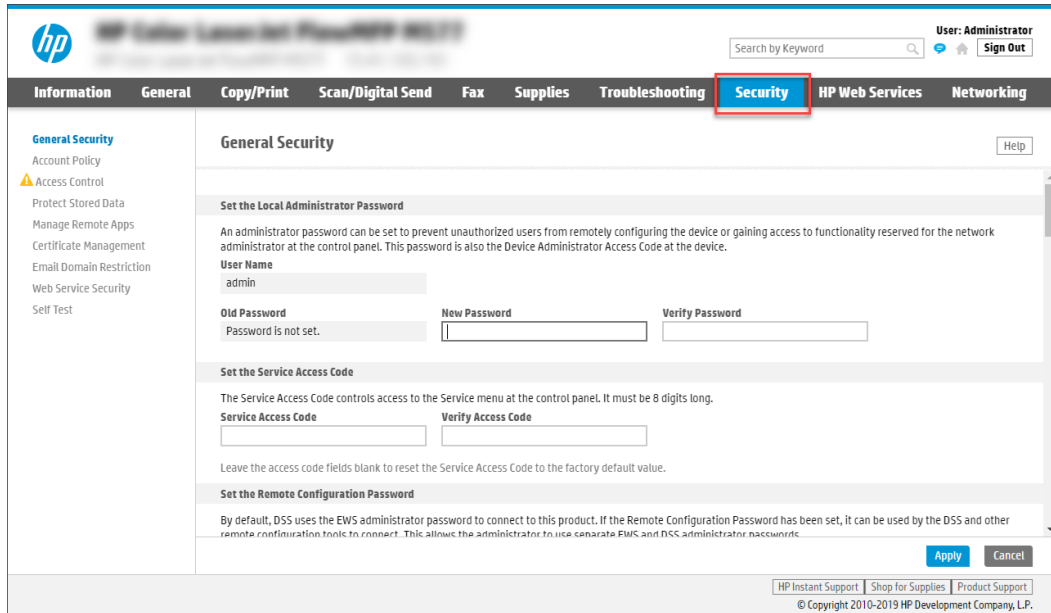
## Assign the password

Assign an administrator password for access to the printer and the HP Embedded Web Server so that unauthorized users cannot change the printer settings.


1. In the address line of your web browser, type the IP address or host name of the printer to open the EWS. For more information, see [Open the HP Embedded Web Server \(EWS\) on page 20](#).
2. On the EWS Home page, click the **Sign In** button on the top right corner of the page, and then enter the Administrator credentials, as follows:
  - **Local Device Account:** Administrator
  - **Password:** admin

3. Click the **Security** tab.


**Figure 5-1 Security tab**



4. In the left navigation pane, click **General Security**.
5. In the **User Name** field, enter or select the desired administrator user name.
6. Enter a password in the **New Password** field, and then enter it again in the **Verify Password** field.

 **NOTE:** For more information about password requirements for length and complexity, see [Enable password complexity on page 48](#).

 **NOTE:** To change an existing password, first enter the existing password in the **Old Password** field.

 **NOTE:** Make note of the password and store it in a safe place. The administrator password cannot be recovered. If the administrator password is lost or forgotten, contact HP Support at [support.hp.com](http://support.hp.com) for the assistance required to completely reset the printer.

7. Click **Apply** to save the settings.


 **NOTE:** To maintain security, click **Sign Out** when you have finished using the EWS.

## Sign in at the printer

Some features on the printer control panel can be secured so that unauthorized people cannot use them. When a feature is secured, the printer prompts you to sign in before you can use it.

You can also sign in without waiting for a prompt by selecting **Sign In** from the printer control panel. Typically, the credentials for signing in to the printer are the same as for signing in to the network. Consult the network administrator for this printer if you have questions about which credentials to use.

1. From the Home screen on the printer control panel, select **Sign In**.
2. Follow the prompts to enter the credentials.

 **NOTE:** To maintain security for the printer, select **Sign Out** when you have finished using the printer.

## Encryption support: HP High Performance Secure Hard Disks

The **Protect Stored Data** page shows the current method of overwriting stored and temporary files on the device hard drive. The hard disk provides hardware-based encryption to protect sensitive data without impacting printer performance. This hard disk uses the latest Advanced Encryption Standard (AES) and has versatile time-saving features and robust functionality.

Use the **Protect Stored Data** page in the HP Embedded Web Server to configure the disk.

1. In the address line of your web browser, type the IP address or host name of the printer to open the EWS. For more information, see [Open the HP Embedded Web Server \(EWS\) on page 20](#).
2. On the EWS Home page, click the **Security** tab.
3. In the left navigation pane, click **Protect Stored Data**.

Figure 5-2 Protect Stored Data page

The screenshot shows the HP Embedded Web Server (EWS) interface for the 'Protect Stored Data' page. The page has a navigation menu at the top with tabs for Information, General, Copy/Print, Scan/Digital Send, Fax, Supplies, Troubleshooting, Security (selected), HP Web Services, and Networking. A left-hand navigation pane lists various security settings, with 'Protect Stored Data' highlighted. The main content area is titled 'Protect Stored Data' and includes a 'Help' button. Below the title, there is a paragraph explaining the importance of data protection. A table titled 'Drive Status' shows the following data:

Drive	Drive Content	Serial Number	Encryption Status
<input type="radio"/> Internal Disk	<input type="info"/> System Data <input type="info"/> Configuration Data <input type="info"/> Job Data	CCD926D1	<input type="warning"/> Status Disk cannot be encrypted

Below the table, there are buttons for 'Erase Drive...' and 'Use Drive...'. The 'Job Data' section explains that erasing job data deletes files from all installed drives. It includes a note: 'The drive used to store job data allows only Secure Cryptographic Erase.' Under 'Select the data erase mode:', there are four radio button options: 'Non-Secure Fast Erase (No overwrite)', 'Secure Fast Erase (Overwrite 1 time)', 'Secure Sanitize Erase (Overwrite 3 times)', and 'Secure Cryptographic Erase' (which is selected). Below these options is an 'Erase...' button and a warning: 'The product will restart automatically after this operation completes.' At the bottom right, there are 'Apply' and 'Cancel' buttons. The footer contains links for 'HP Instant Support', 'Shop for Supplies', and 'Product Support', along with the copyright notice: '© Copyright 2010-2019 HP Development Company, L.P.'

4. Configure the desired options and then click **Apply**.


## Configure the Account Policy settings

Learn how to configure the Account Policy settings in the EWS.

### Introduction

The account policy should be configured to match the printers network account policy as closely as possible. The default policy was created by matching the Microsoft Active Directory security defaults. HP suggests working with your customer's IT department to make sure the MFP account is secure.

---

 **NOTE:** Remote configuration accounts include access to management tools, such as HP Web Jetadmin.

---


## Configure the Account Policy settings

Learn how to configure the Account Policy settings.

### Enable account lockout

The Account lockout feature allows administrators to specify the number of failed log in attempts before the printer enters Protected Mode, which makes the account unavailable for the duration of the lockout period.


---

 **NOTE:** Before reducing the number of maximum log in attempts, make sure that the total number of EWS credentials stored in Web Jetadmin do not exceed the number of allowed log in attempts. If the number of credentials exceeds the number of log in attempts, a status communication error might occur if Web Jetadmin discovers a new printer.

---

1. Click the **Security** tab.
2. Open the **Account Policy** menu.
3. In the area labeled **Local Administrator Password** or the area labeled **Remote Configuration Password**, select **Enable account lockout**.
4. In **Maximum attempts**, type the number of times an administrator can enter an incorrect password before being locked out of the account.


---

 **NOTE:** The default number of attempts is 5. The allowable number of attempts can range between 3 and 30.

---

5. In **Lockout interval**, type the number of seconds for which the account will be locked.


---

 **NOTE:** The default number of seconds is 300. The allowable number of seconds can range between 5 and 1800 seconds.

---

6. In **Reset lockout counter interval**, type the number of seconds that must pass after a failed log in attempt before the failed log in attempt counter resets to 0.

---

 **NOTE:** The default number of seconds is 300. The allowable number of seconds can range between 5 and 1800 seconds.

---

7. Click the **Apply** button to save the settings.

### Enable password complexity


The password complexity feature means that you must select three different character types when selecting a password. The options include uppercase letter, lowercase letter, numbers, and special characters. This is based on the Microsoft default for password complexity requirements.

For more information, see [Microsoft complexity requirements](#).

1. Click the **Security** tab.
2. Open the **Account Policy** menu.

3. In the area labeled **Local Administrator Password** or the area labeled **Remote Configuration Password**, select **Enable Password Complexity**.


---

 **NOTE:** When password complexity is enabled, administrator account passwords must contain three of the following characteristics:

- Uppercase letters
- Lowercase letters
- Numbers
- Special Characters

4. In Minimum password length, type the minimum numbers of characters that the password must contain.

---

 **NOTE:** The default number of characters is 8. The number of characters required in a password can range from 0 to 16. Setting the number of characters to 0 indicates that the minimum number of characters is disabled and that no password is required to access an account.

---

5. Click the **Apply** button to save the settings.

## Configure Access Control settings for walk-up features in the EWS

Learn how to configure Access Control settings for walk-up printing features.

### Introduction

Use the **Access Control** page to manage the print features users can access:

- **Enable and Configure Sign-In Methods** - set up how users log in at the printer control panel or from the computer to access print features
- **Sign-In and Permission Policies** - set up access restrictions for user types, access types, and sign-in methods
- **Device User Accounts** - create, edit, import, export, and delete user and group accounts for accessing printer features


The following steps explain how to use the Access Control feature.

### Step one: Set up the sign-in methods

The Access Control sign-in methods can be enabled for the printer, but only one can be the default sign-in method. If more than one method is enabled, access the non-default method from the printer control panel by touching [Sign In](#), and then touch [Advanced](#).

#### Sign-in methods

---

 **NOTE:** If an HP Smart Card Reader solution is installed, disable all other sign-in methods on this page because signing in is required with this solution. Install certificates on the **Certificate Management** page if required.

---

- **Windows**

- LDAP
- Installed third-party sign-in solutions – See the documentation that came with the third-party solution for information about setting up that sign-in method.

## Windows sign-in setup

Use the following steps to set up Windows sign-in.

1. Using the EWS top navigation tabs, click **Security**.
2. In the left navigation pane, click **Access Control**.
3. To configure the **Windows** sign-in method, click the **Setup** link for this method on the **Access Control** page.
4. Select the **Enable Windows Sign In (Kerberos and NTLM)** check box.
5. Add Windows domains to be recognized by the printer:
  - a. Enter the Fully Qualified Domain Name (FQDN) or IP address in the **Trusted Domains** field.
  - b. Click **Add**.

Enter the fully-qualified host name or an IP address in dotted-decimal notation.



**NOTE:** If DNS settings are not set appropriately, a fully-qualified domain name might be required.

By default, the first domain added to the trusted domain list is automatically selected as the **Default Windows Domain**. If other trusted domains have been added, they can be selected as the default domain in the **Default Windows Domain** field.

6. Select the **Show Preferred Domain Servers** check box to create a list of preferred domain servers.
 

The specified Preferred Domain Servers will be used first, and if these servers do not work, the firmware will find domain servers based on the Trusted Domains list.

  - a. Enter the FQDN or IP address in the **Preferred Domain Servers** field.
  - b. Click **Add**.
7. Verify the match and retrieval default attributes and update if necessary.



**NOTE:** The **Enable reverse DNS lookups** option is selected by default. **Use a secure connection (SSL)** is disabled by default.

### Match and retrieve attribute fields

- **Match the name entered with this attribute:** The **sAMAccountName** attribute is entered by default. This attribute retrieves the Windows Active Directory account name to verify the user names.
- **Retrieve the user's e-mail address using this attribute:** The **mail** attribute is entered by default and is the recommended attribute. This attribute retrieves the Windows Active Directory user's email address to pre-populate address fields as appropriate.
- **Retrieve the device user's name using this attribute:** The **displayName** attribute is entered by default. This attribute retrieves the Windows Active Directory display name.

8. To verify that the sign-in method is working correctly, enter a valid **Username** and **Password** in the **Test Windows Sign in** area, and then click **Test**.
9. At the bottom of the page, click **OK** to save the settings.



---

**NOTE:** To remove a domain, select the domain, and then click **Remove**.

---

## LDAP sign-in setup

Use the following steps to set up LDAP sign-in.

1. Using the EWS top navigation tabs, click **Security**.
2. In the left navigation pane, click **Access Control**.
3. To enable the **LDAP** sign-in method, click the **Setup** link for this method on the **Access Control** page.
4. Select the **Enable LDAP Sign In** check box in the **Setup** area.
5. Enter an LDAP address in the **LDAP Server Address** field. The address can be a fully-qualified host name or an IP address in dotted-decimal notation.
6. Select **Use a secure connection (SSL)** to use SSL when connecting, and then enter the port number on the LDAP server in the **Port** field.



---

**NOTE:** When using TSL or SSL, port 636 is used by default.

---

7. Specify the authentication requirements in the **Server Authentication Requirements** area.
  - a. Select **Use Device User's Credentials**, and then enter the **Bind Prefix**.
  - b. Select **Use LDAP Administrator's Credentials**, and then enter values in the **LDAP Administrator's DN** and **Password** fields.
8. In the **LDAP Database Search Settings** area, enter the **Bind and Search Root**, and then click **Add**.
9. Verify the match and retrieval default attributes and update if necessary.

### Match and retrieve attribute fields:

- **Match the name entered with this attribute:** Enter the name of an attribute
- **Retrieve the user e-mail address using this attribute:** Enter the name of an attribute
- **Retrieve the device user's name using this attribute:** Enter the name of an attribute
- **Retrieve the device user's group using this attribute:** The **objectClass** attribute is entered by default



---


**NOTE:** The **Exact match on Group attribute** option is selected by default.

---

10. To verify that the sign-in method is working correctly, enter a valid **Username** and **Password** in the **Test LDAP Sign In** area, and then click **Test**.
11. At the bottom of the page, click **OK** to save the settings.

## Step two: Set up print feature permissions

The following instructions provide information on how to configure access restrictions for user types, access types, and sign-in methods.

 **NOTE:** By default, all print features for **Device Guest** are set to **Access Granted** and **Device User** are set to **Full Access**, which do not require a sign-in method. Sign-in is not required unless the sign-in method is changed in the **Sign In Method** column from **Use Default** to one of the three sign-in methods (**Local Device**, **LDAP**, or **Windows**).

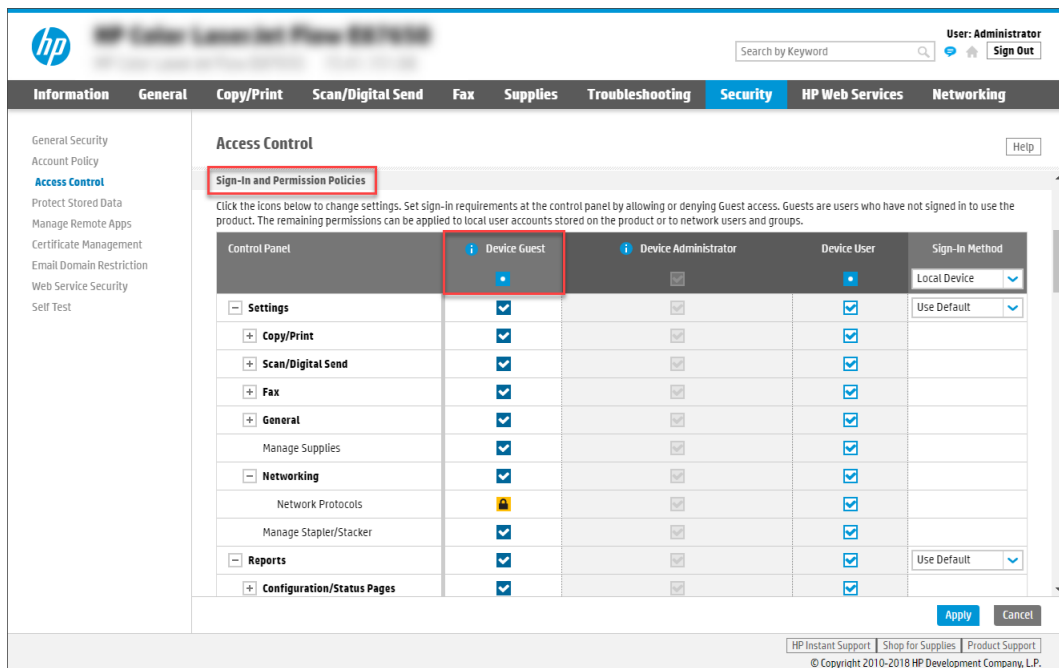
1. Determine the appropriate level of Guest access in the **Device Guest** column.

- **Access Granted:** Allows a **Device Guest** to use the specified print feature without signing in
  - **Requires Sign In:** Requires a **Device Guest** to sign in to use the specified print feature
- a. Disable all print features by clicking the check box under **Device Guest**. The check boxes are now set to **Requires Sign In** to use the print features.

OR

- b. To disable a specific print feature, click the check box to the right of the feature in the **Device Guest** column. The print feature is now set to **Requires Sign In** to use the feature.

**Figure 5-3** Options for permissions on the Access Control page



Control Panel	Device Guest	Device Administrator	Device User	Sign-In Method
Settings	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Use Default
Copy/Print	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Scan/Digital Send	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Fax	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
General	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Manage Supplies	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Networking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Network Protocols	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Manage Stapler/Stacker	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Reports	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Use Default
Configuration/Status Pages	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

2. Determine the level of access for a **Device User**.

- **Full Access:** Allows a **Device User** to use the specified print feature without signing in
  - **Access Denied:** Requires a **Device User** to sign in to use the specified print feature
- a. Disable all print features by clicking the check box under **Device User**. The check boxes are now set to **Access Denied**. If a print feature is set to **Access Denied** in the **Device User** column, the access in the **Device Guest** column automatically changes to **Requires Sign In**.



2. Click **New...** to create a new Device User Account, and enter the following information:
  - **Display Name:** Enter a Device User Account name
  - **E-mail Address:** Enter the user e-mail address
  - **Network Name:** Enter the network name
  - **Access Code:** Use this generated Access Code or assign a new code
  - **Permission Set:** From the drop-down list, select either **Device Administrator** or **Device User**
3. Click **OK**.

## Step six: Complete the setup

On the **Access Control** page, review the selected settings, and then click **Apply** to complete the setup.

## Protect printer data

Learn how to protect printer data on the printer hard drive(s).

### Introduction

There are several methods to protect data stored on the printer hard drive(s). One of the best solutions is to purchase a printer with an encrypted drive or upgrade to an encrypted drive if the option is available.

The data on an encrypted drive is not accessible if removed from the printer. Data on the drive should be erased prior to donating, recycling, or transferring ownership of this printer. To ensure that print or scan job images are not retained on the hard drive (until overwritten by another job) select a secure file erase mode in the **Managing Temporary Job Files** area of the **Protect Stored Data** page.



---

**NOTE:** If a job is in process at the same time a data erase mode operation is initiated, the job will complete before the data erase operation begins.

---

## Set up Protect Stored Data

Learn how to set up Protect Stored Data using the EWS.

### Drive Status

Click the **Security** tab, and then select **Protect Stored Data** to access the Drive Status in the EWS.

The **Drive Status** area of the **Protect Stored Data** page contains the following information about each drive installed on the printer:

- Type of drive
- Content on the drive
- Serial number
- Encryption status

If multiple drives are installed on the printer, use this **Drive Status** area to specify which drive the printer uses by using the **Use Drive...** operation and also to perform an **Erase Drive...** operation on a specified drive.

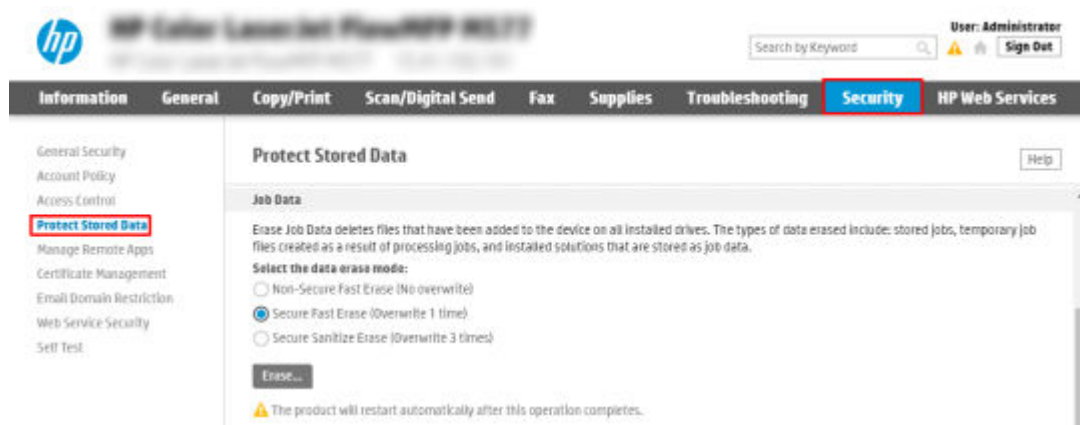
eMMC/SSD devices show **Status Disk Cannot be encrypted** for the encryption status. This status is normal because these devices are not self-encrypting. All customer data written to eMMC/SSD devices is encrypted.

## Job Data

Use the following steps to select a data erase mode.

Types of data erase modes available for performing a data erase operation for devices with a hard disk drive:


Figure 5-4 Job Data for printers with a hard disk drive



- **Non-Secure Fast Erase (No overwrite)**
- **Secure Fast Erase (Overwrite 1 time)** – overwrites the data once and has little effect on printer performance
- **Secure Sanitize Erase (Overwrite 3 times)** – overwrites the data three times and might have an affect on printer performance

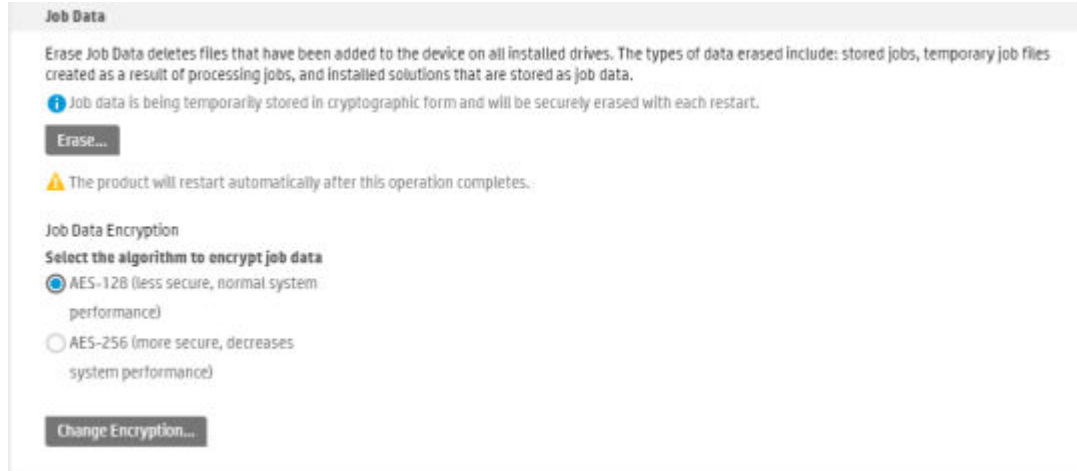
Data erased when performing a data erase operation:

- Stored jobs
  - Temporary job files (created as the result of processing jobs)
  - Installed solutions that are stored as job data
1. For devices with hard disk drives, select a data erase mode in the **Job Data** area of the **Protect Stored Data** page.
  2. At the bottom of the page, click the **Apply** button.

 **NOTE:** The printer automatically restarts after the Erase Job Data operation completes. The printer control panel displays the splash screen while the operation is in progress. Erase Job Data operations can take varying lengths of time, from minutes to hours, depending on the amount of data being erased.

Printers with eMMC/SSD storage devices do not have data erase modes for job data. However, they do have job encryption algorithm options.

**Figure 5-5 Job Data for printers with eMMC/SSD storage**



Algorithms to encrypt job data for devices with eMMC/SSD (no HDD):


- **AES-128 (less secure, normal system performance)**
- **AES-256 (more secure, decreases system performance)**


To change the data encryption algorithm on a printer with eMMC/SSD storage, select the algorithm to use, and then click the **Apply** button at the bottom of the page.

Changing the encryption algorithm setting causes all stored jobs to be lost.

## Change Password for Encrypted Drives

Learn how to change the password for encrypted hard drives.


 **NOTE:** This is an optional configuration setting. The printer encryption keys are randomly generated when the product is started and securely stored in a protected memory area.

 **NOTE:** This configuration setting is not available for eMMC/SSD printers. The encryption key on an eMMC/SSD printer is regenerated every time the printer is restarted.

If an EIO drive is installed on the printer, its information will be displayed in the **Drive Status** section and a **Change Password...** button will be available in the **Change Password for Encrypted Drives** area.

## Generate a new random password for all encrypted drives


Use the following steps to generate a new password for encrypted drives.

 **CAUTION:** All customer data currently stored will be lost during a cryptographic erase.

1. Select **Generate a new random password (Recommended)**.
2. Click the **Change Password...** button.

## Manually set a new password for all encrypted drives

Use the following steps to manually set a new password for encrypted drives.

 **CAUTION:** All customer data currently stored will be lost during a cryptographic erase.

1. Select **Manually set a new drive password**.

2. Enter a password in the **Password:** and **Confirm Password:** fields.
3. Click the **Change Password...** button.


## Managing Temporary Job Files

Use the **Managing Temporary Job Files** area to set the data erase mode used when temporary job files are erased during a data erase operation.

The following types of data erase modes are available for data erase operations on temporary job files:

- **Non-Secure Fast Erase (No overwrite)** – deletes the cryptographic key
- **Secure Fast Erase (Overwrite 1 time)** – overwrites the data once and has little effect on printer performance


---

 **NOTE:** This data erase mode is not available for eMMC/SSD devices.

---

- **Secure Sanitize Erase (Overwrite 3 times)** – overwrites the data three times and might have an affect on printer performance

---

 **NOTE:** This data erase mode is not available for eMMC/SSD devices.

---

## Manage Stored Jobs

Use the **Manage Stored Jobs** area to manage settings for jobs stored on the printer and for Quick Copy jobs; stored jobs sent from the print driver.

The following settings are available for configuration:

- **Allow new jobs to be saved in Job Storage** - select this check box to enable job storage on the printer. The jobs are sent from a print driver, or they can be created with the Scan to Job Storage app on the printer control panel (if available).

Select one or more of the following check boxes to configure the use of PINs for stored jobs:

- **Require all PINs to be four digits**
- **Require all Scan to Job Storage jobs to be PIN-protected**
- **Require all print driver stored jobs to be PIN-protected or encrypted**
- **Cancel all print driver jobs without PIN protection**
- **Add PIN protection to existing stored jobs** - the specified PIN will be assigned to all currently existing jobs that do not already have an associated PIN.
- **Retain Temporary Jobs After Reboot** - specify if temporary jobs are retained after the printer is restarted. The following settings are available:
  - **Do not retain**
  - **Personal jobs only**
  - **All temporary jobs**
- **Temporary Stored Job Retention** - specify how long Quick Copy jobs are held on the printer. The following settings are available:

- **Off**  
(default)
  - **30 minutes**
  - **1 hour**
  - **4 hours**
  - **1 day**
  - **1 week**
  - **4 weeks**
  - **3 days**
- **Temporary Job Storage Limit** - specify how many Quick Copy jobs can be stored on the printer.
  - **Job Sort Order** - specify how stored jobs are sorted, either by **Job Name** (default) or **Date**.  
The job sort order also affects the jobs that are in the print queue on the device.
  - **Default Folder Name** - specify the default folder where jobs are stored.
  - **Standard Stored Job Retention** - specify how long standard jobs are held on the printer. The following settings are available:
    - **Off**  
(default)
    - **30 minutes**
    - **1 hour**
    - **4 hours**
    - **1 day**
    - **1 week**
    - **4 weeks**
    - **3 days**
  - **Behavior when users are authenticated** - define what users first see when they enter the Retrieve from Device Memory app (FutureSmart 3) or the Print from Job Storage app (FutureSmart 4) from the printer control panel. The following settings are available:
    - **Default** - when users enter the app from the printer control panel, they see all folders inside the app.
    - **Assist users to their jobs** - authenticated users entering the app first see only their jobs.

Review the selected settings, and then click the **Apply** button to save any changes made on the **Protect Stored Data** page.

## Step two: Complete the setup

On the **Protect Stored Data** page, review the selected settings, and then click **Apply** to complete the setup.

## Install certificates

Learn how to install certificates.

### Install certificates to ensure data security

Learn how to install and configure security certificates.

#### Introduction

Use the **Certificate Management** page to manage certificates for identification of the printer on a network and to encrypt data used by the printer.

The printer comes with a self-signed identity certificate and a self-signed Certificate Authority (CA) certificate. The printer also comes with three Root CA Certificates from popular Certificate Authorities. These Root CA Certificates can be used to authenticate popular email services including Gmail, Yahoo, and MS Office 365.

Certificates are managed from the **Security** tab > **Certificate Management** page of the EWS. The **Certificate Management** page contains the following tabs:

- **Certificate** tab – Use to import, view details, remove, export, and use for e-mailing signing with certificates
- **Certificate Validation** tab – Use to disable or enable validation of Kerberos server certificates with either the OCSP or CDP validation

The printer supports the following import formats for certificates:

- .DER (binary)
- .CER (binary or Base64)
- .PEM (Base64, installs single certificate)
- .PFX (identity certificate)
- .P7B (CA certificates only)

### Create or install certificates

Learn how to create or install security certificates.

#### Create a new self-signed certificate

Use this feature to create a new, self-signed identity certificate for the printer. A self-signed identity certificate is installed on the printer by default for data-encryption purposes only. Self-signed identity certificates are not accepted for authentication since they are not issued by a trusted Certificate Authority (CA).



---

**NOTE:** To create an identity certificate signed by a CA, see the following sections on creating a certificate signing request (CSR) and installing an identity certificate from a CSR.

---

Creating a new, self-signed certificate overwrites and replaces the existing self-signed certificate on the printer.

1. Using the top navigation tabs, click **Security**.
2. In the left navigation pane, click **Certificate Management**.
3. Click **Create...** in the **Create New Self-Signed Certificate** area.
4. Enter the identifying information for the printer in the **Identifying Information** area.
5. Select an encryption key length in the **RSA Key Length**: drop-down menu in the **Key Options** area.



---

**NOTE:** If the Trusted Platform Module (TPM) is installed, the private key may be marked as exportable. However, if **Mark private key as exportable** is selected, the private key will not be generated on the TPM.

---

6. Select a signature algorithm from the **Signature Algorithm** drop-down menu in the **Signature Algorithm** area.
7. Enter the validity period for the certificate in the **Certificate Validity** area. The default validity period is five years from the system date at creation time.
8. Click **OK** to go to the new, self-signed certification confirmation page. To return to the main Certificates page without updating the current, signed certificate, click **Cancel**.

### Create a certificate signing request

Use the following steps to create a certificate signing request.

1. Using the top navigation tabs, click **Security**.
2. In the left navigation pane, click **Certificate Management**.
3. Click **Create...** in the **Create Certificate Signing Request** area.
4. Enter the identifying information for the organization to which the certificate will be issued in the **Identifying Information** area.
5. Select an encryption key length for the requested certificate in the **RSA Key Length**: drop-down menu in the **Key Options** area.



---

**NOTE:** If the Trusted Platform Module (TPM) is installed, the private key may be marked as exportable. However, if **Mark private key as exportable** is selected, the private key will not be generated on the TPM.

---

6. Select a signature algorithm for the requested certificate from the **Signature Algorithm** drop-down menu in the **Signature Algorithm** area.
7. Click **OK** to proceed to the **Create Certificate Signing Request** confirmation page.
8. Copy, or save to a file, the contents of the certificate signing request on the **Create Certificate Signing Request** confirmation page. The contents of the certificate signing request must be presented to a CA to complete the request process.

### Install an identity certificate

Use this to install an identity certificate created from a CSR.

1. Using the top navigation tabs, click **Security**.

2. In the left navigation pane, click **Certificate Management**.
3. Select **Install Identity Certificate from CSR**.
4. Click **Browse** next to the **Choose File** field.
5. Locate the certificate for import, and then click **Open**.
6. Click **Install**.

### Import an identity certificate

Use the following steps to import an identity certificate.

1. Using the top navigation tabs, click **Security**.
2. In the left navigation pane, click **Certificate Management**.
3. Select **Import Identity Certificate with Private Key**.



---

**NOTE:** If Trusted Platform Module (TPM) is installed, HP recommends creating and using a certificate signed by a CA.

---

4. Click **Browse** next to the **Choose File** field.
5. Locate the certificate for import, and then click **Open**.
6. Click **Install**.

### Install a certificate

Use the following steps to install a certificate.

1. In the left navigation pane, click **Certificate Management**.
2. Click **Browse** next to the **Choose File** field.
3. Locate the certificate for import, and then click **Open**.



---

**NOTE:** Identity type certificates, as well as Certificate Authority type certificates, are valid types for importation and use with this printer.

---

4. If the certificate has a private key (for example, a .pfx file), enter the password for the certificate in the **Certificate Password** field. Use the same password used to encrypt the private key.
5. Click **Import**.

### Configure the certificate validation settings

Use the following information to configure the certificate validation settings in the EWS.

#### Configure OCSP certificate validation

Use the following steps to set up OCSP certificate validation.



---

**NOTE:** Certificates might need to be installed in the **Certificates** tab for the OCSP servers.

---

1. Using the top navigation tabs, click **Security**.
2. In the left navigation pane, click **Certificate Management**.

3. Click the **Certificate Validation** tab of the **Certificate Management** page.
4. Select the **Perform OCSP Validation on the certificate trust chain** option on the **Certificate Validation** tab.
5. Enter a URL for an OCSP server, and then click **Add**.



**NOTE:** Multiple OCSP servers can be added for certificate validation. The URLs for the OCSP server(s) might be fully-qualified domain names or IP addresses.

6. Select the **Treat Unknown certificate status as valid** check box, if necessary.
7. Click **Apply** to save the settings.

### Configure CDP certificate validation

Use the following steps to configure CDP certificate validation.

1. Using the top navigation tabs, click **Security**.
2. In the left navigation pane, click **Certificate Management**.
3. Click the **Certificate Validation** tab of the **Certificate Management** page.
4. Select the **Perform CDP Validation on the certificate trust chain** option on the **Certificate Validation**.
5. Click **Apply** to save the settings.

## Install certificates for remote apps

Learn how to install certificates for remote apps.

### Introduction

The **Manage Remote Apps** page is available only for printers that have FutureSmart 4 with firmware version 4.5 or later. Use the **Manage Remote Apps** page to install and manage the certificates for the remote apps that are available on mobile devices. When a certificate is installed, the remote app is added to a whitelist that allows it to be used on the printer.

The printer supports the following import formats for certificates:


- .DER (binary)
- .CER (binary or Base64)
- .PEM (Base64, installs single certificate)

### Install remote app certificates

Use the following steps to install remote app certificates:

1. Sign in to the EWS using administrator credentials.
2. Using the top navigation tabs, click **Security**.
3. In the left navigation pane, click **Manage Remote Apps**.
4. Click **Browse** next to the **Choose File** field.

5. Locate the certificate for import, and then click **Open**.

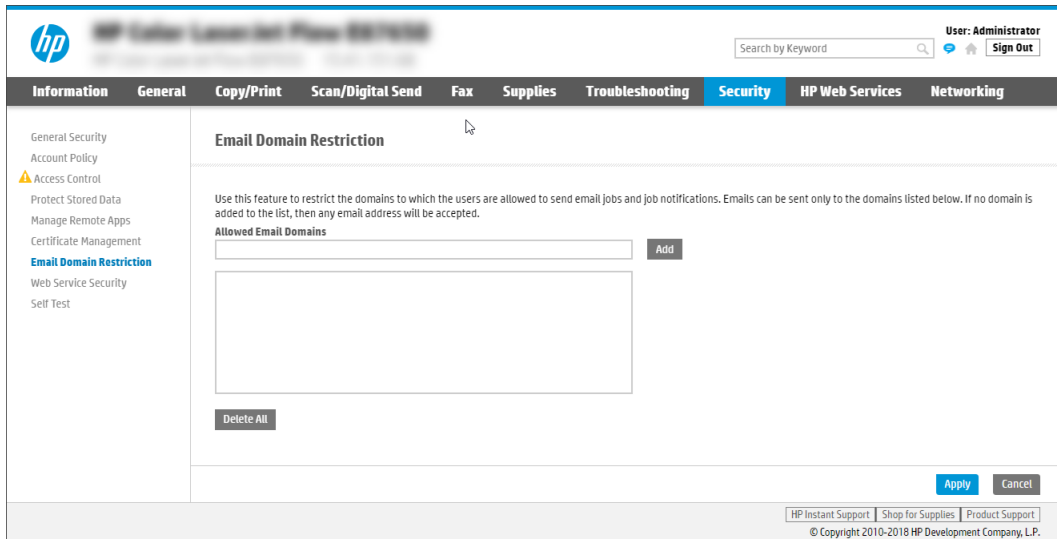
 **NOTE:** The certificate can be a self-signed certificate.

6. Click **Import**.

## Restrict email domains

Use the **Email Domain Restriction** page, located in the **Security** tab, to restrict the domains to which the users are allowed to send email jobs and job notifications.

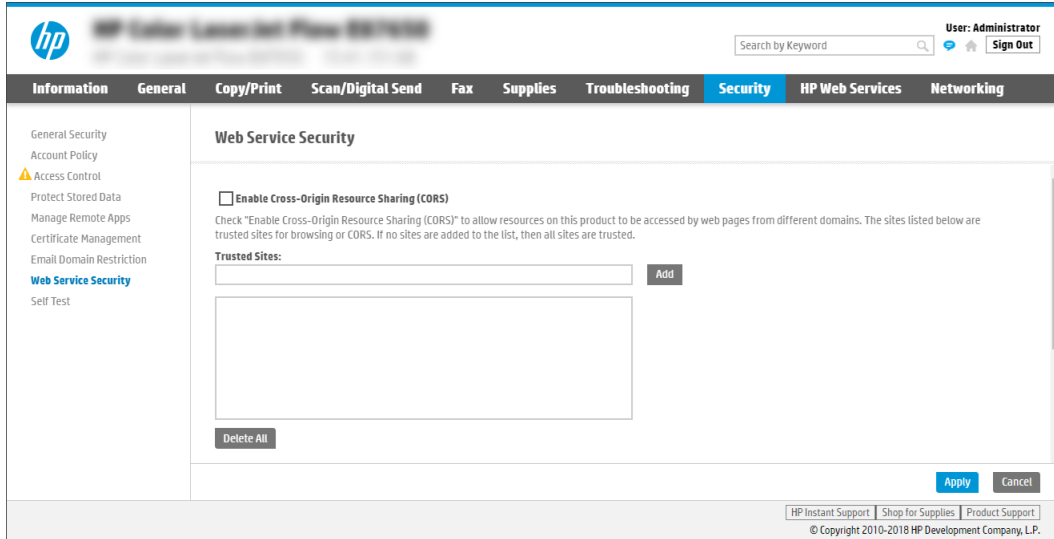
Figure 5-6 Email Domain Restriction page



## Specify websites able to access a printer

Use the **Web Service Security** page, located in the **Security** tab, to enable Cross-Origin Resource Sharing (CORS), which allows resources on this printer to be accessed by web pages from different domains, and manually add trusted sites for this printer.

Figure 5-7 Web Service Security page



---

# 6 Configure printer features using the EWS

Learn how to configure printer features using the EWS.

## Configure the printer

Use the following information to configure printer features using the EWS.

### Configure the color calibration and cleaning cycles

Learn how to configure the color calibration and cleaning cycles using the EWS. These features are available in the **Troubleshooting** tab.

#### Introduction

Multifunction printers automatically calibrate and clean at various times to maintain the highest level of print quality. The purpose of this document is to provide an understanding of these processes and suggest possible configuration changes that will minimize interruptions to the user.

While the printer is calibrating and cleaning, the printer will pause normal print operations for the amount of time it takes to complete the calibration or cleaning. For most calibrations and cleaning, the printer will not interrupt a print job, but will wait for the job to complete (or in the case of a job with multiple copies, a copy boundary) before calibrating or cleaning. In the case of very large jobs, a calibration may occur before the job completes.

The end result of any calibration is to achieve an optimal printing state. This desired state is the result of carefully measuring print performance over the life of several printers in different environmental conditions.

#### Print a cleaning page or perform a color calibration

Learn how to print a cleaning page or perform a color calibration using the EWS.

1. Click the **Troubleshooting** tab.
2. Open the **Calibration/Cleaning** menu.
3. Use one or both of the following options:
  - Click **Print** to print a cleaning page.
  - Click **Start Color Calibration** to perform color calibration.

## Additional calibration and cleaning information

Reference more details about printer calibration and cleaning.

### Calibration Timing and Duration

Please note that all of the below times are “best case” times. Color Plane Registration (CPR) calibrations may require additional retry sequences before they complete with satisfactory results.

**Table 6-1 Normal Timings and Durations**

When	Cycle Performed	Duration
The product is powered on or brought to Ready from sleep mode.  <b>NOTE:</b> Dhalf <sup>1</sup> and Dmax <sup>2</sup> calibrations are not performed when the printer is powered on or brought to Ready and the fuser temperature registers 122 degrees F (50 degrees C) or more.	<ul style="list-style-type: none"> <li>Dhalf, Dmax</li> <li>Color Plane Registration (CPR)<sup>3</sup></li> </ul>	1 minute 21 seconds
One or more new print cartridges are installed.  <b>NOTE:</b> Dhalf and Dmax calibration are run after 50 pages are printed on the new cartridge(s).  Intermediate Transfer Belt (ITB) <sup>4</sup> is replaced.  Laser Scanner is replaced.  After 1000 pages have printed since the last calibration.  <b>NOTE:</b> The printer will finish printing the current job before calibrating.	<ul style="list-style-type: none"> <li>Dhalf, Dmax</li> <li>Color Plane Registration (CPR)</li> </ul>	1 minute 21 seconds
After 8 hours has elapsed since the last print job.	<ul style="list-style-type: none"> <li>Dhalf, Dmax</li> </ul>	43 seconds
After 15 minutes of continuous printing.	<ul style="list-style-type: none"> <li>Color Plane Registration (CPR)</li> </ul>	38 seconds
In the middle of print operations.  <b>NOTE:</b> When the printer needs to perform a CPR calibration, it will wait until the end of the print job or 100 pages before execution.	<ul style="list-style-type: none"> <li>Color Plane Registration (CPR)</li> </ul>	38 seconds
When <b>Quick Calibration</b> is selected from the control panel menu.	<ul style="list-style-type: none"> <li>Dhalf, Dmax</li> </ul>	43 seconds
When <b>Full Calibration</b> is selected from the control panel menu.	<ul style="list-style-type: none"> <li>Dhalf, Dmax</li> <li>Color Plane Registration (CPR)</li> </ul>	1 minute 21 seconds
When the printer needs to evaluate toner level in print cartridge.	<ul style="list-style-type: none"> <li>Cleaning, toner level sensing</li> </ul>	45 seconds
When the printer needs to perform periodic lubrication and cleaning of toner cartridges.	<ul style="list-style-type: none"> <li>Toner Purge</li> </ul>	21 seconds
After a mis-print.	<ul style="list-style-type: none"> <li>Cleaning primary transfer</li> </ul>	13 seconds

**Table 6-1 Normal Timings and Durations (continued)**

When	Cycle Performed	Duration
After a paper jam.	<ul style="list-style-type: none"><li>• Clearing paper path</li></ul>	28 seconds

- <sup>1</sup> Density Halftone (Dhalf): A means of calibrating the print tone characteristics.
- <sup>2</sup> Density Maximum (Dmax): The maximum density that can be printed.
- <sup>3</sup> Color Plane Registration (CPR): A method of aligning the 4 primary color planes.
- <sup>4</sup> Intermediate Transfer Belt (ITB): The medium onto which the print image is intermediately formed and then transferred to print media.

## Worst Case Delays

The calibration and cleaning processes run independently. If they happen to coincide, then the resulting delay could be as long as 1 minute 42 seconds.

At power on, if the fuser is cold, the combined time for boot-up (3 minutes) plus calibration (1 minute 21 seconds) could result in a total delay of 4 minutes 21 seconds before the printer is Ready.

 **NOTE:** Delay times depend on the printer model.

## Steps to minimize interruptions

Use the following recommendations to minimize interruptions for printer users.

- Set the **Sleep Delay** to 120 minutes (2 hours).
  - Administration, General Settings, Energy Settings, Sleep delay
- Set **Delay Calibration at Wake/Power On** to NO.
  - Device Maintenance, Calibration/Cleaning, Delay Calibration at Wake/Power On
- Set the **Wake Time** for each day to 15 minutes before the first expected use of the product.
  - Control Panel:Administration, Display Settings, Sleep Mode, Use Sleep Schedule
  - Embedded Web Server:General Tab, Sleep Schedule

These steps will ensure that the printer has completed the calibration and cleaning cycles before users are expected to need the product. Setting the **Sleep Delay** to 2 hours will prevent the product from going into sleep mode (this assumes the product will not be inactive more than two hours).

## Background - Explanation of Calibration and Cleaning

The purpose of a print alignment calibration is to adjust one or more elements of the print system such that print and image quality is returned to an optimal state. These calibrations carefully measure each CMYK print result to ensure that the colors are properly aligned in the resulting image.

## Color Plane Registration

CPR Calibration sets several printer parameters; top of page (vertical scanning start position), start of line (horizontal scanning start position), and scale in the scan direction (horizontal scanning magnification). We refer to registration errors as being in the Process Direction (PD) or the Scan Direction (SD). Process Direction is in the direction of motion of the paper through the printer; Scan Direction is perpendicular to the Process Direction.

- **Top of page** calibration sets the delay, or offset, between each of the colors, CMYK, so that the color planes are lined up in the process direction.

- [Start of line](#) calibration aligns each of the colors in the scan direction.

As with Halftone Adjustment, CPR calibration is done by writing patterns on the image transfer belt and then using sensors to read the patterns. Variations in the timing of the patterns tell the printer how to compensate for top of page, start of line, and scale in the scan direction.

There are several sources of CPR error in the print system. While cartridge and ITB variation are large contributors, there are other factors which may contribute to CPR error. These include the laser scanner assembly and heat dissipation during printing. Therefore, following long periods of print operation, the printer may require a calibration to be performed.

### Maximum Density (Dmax) Calibration

The purpose of Maximum Density calibration is to set the maximum density (100% exposure) of each of the primary print colors (cyan, magenta, yellow, and black). During Dmax calibration, patches are generated and developed onto the image transfer belt (ITB). The developed patches pass by two internal sensors that “read” the patches and the data is used by the printer to adjust the print parameters so that the printer generates the desired “nominal” maximum density.

### Halftone Density (Dhalf) Calibration

The purpose of the Halftone Density (Dhalf) calibration is to adjust the density between zero and 100%. As with CPR calibration, patches are developed onto the image transfer belt (ITB) and read by the sensors. The data is then used to calculate the halftone mapping that will generate the desired nominal performance. The result of this calibration is a halftone which is adjusted to compensate for the non-linearity of the laser printing system. The halftones (which are also called an “ordered dither” halftone set) that are adjusted are used for normal print operations (not the scan/copy path).

In the case of a measurement failure, the printer is designed to use an average calibration which is an average of several printers measured over life in different environments. While not optimal, this average should give most customers a reasonably well calibrated printer. Errors will be written to the event log in this case.

### Calibration Controls

Calibration execution controls are found under the [Calibration/Cleaning](#) menu structure ([Device Maintenance](#), [Calibration/Cleaning](#)).

The specific controls are:

- Quick Calibration
- Full Calibration

### Cleaning Cycles

The purpose of the cleaning cycle is to ensure the highest level of print quality by eliminating excess toner and paper dust that accumulates in the primary transfer stage of the electro photographic process.

## Configure the Manage trays settings

Learn how to configure the Manage Tray settings in the EWS.

### Introduction

You can use the HP Embedded Web Server (EWS) to manage tray settings for the printer. In addition to managing the paper size and type settings for specific trays, you can also manage general tray settings for features such as Alternative Letterhead Mode, duplexing, and prompts.

## Step one: Configure the tray settings

Use the following steps to configure the paper tray settings.

1. Click the **Copy/Print** or **Print** tab.
2. Open the **Manage Trays** menu.
3. Modify the tray settings.
  - To set the paper size and type for a tray, complete the following procedure:
    - a. In the area labeled **Trays**, click the **Modify** link next to the name of the tray.
    - b. To change the default paper size, select a paper size from the **Size** drop-down list.
    - c. To change the default paper type, select the paper type from the **Type** drop-down list.
    - d. Click **OK** to return to the main Manage Trays page.
  - To change the general tray settings, complete the following procedure:
    - In the area labeled **General Tray Settings**, open the drop-down list of the appropriate feature.
    - Select the appropriate setting.
4. Click **Apply** to save the settings.

## Step two: Load the trays

Load paper into the trays as follows.



---

**NOTE:** To avoid jams, never add or remove paper from Tray 1 during printing.



---

**NOTE:** Labels on each tray indicate the correct way to load paper. If you change the size or type of paper that is loaded in the tray, you need to configure the tray for the new size or type.

---

### Load Tray 1

Use the following steps to load Tray 1.

1. Open Tray 1.
2. Pull out the tray extension to support the paper and set the side guides to the correct width.
3. Load paper in the tray.
4. Make sure the stack fits under the tabs on the guides and does not exceed the load-level indicators.
5. Adjust the side guides so that they lightly touch the paper stack but do not bend it.

### Load Tray 2 and the optional 500-sheet input trays

Use the following steps to load Tray 2 and optional trays.

1. Open the tray.





---

**NOTE:** Do not open the tray while it is in use.

---

- Adjust the paper-length and paper-width guides by squeezing the adjustment latches and sliding the guides to the size of the paper being used.
- Load paper into the tray. Check the paper to verify the guides lightly touch the stack, but do not bend it.


 **NOTE:** To prevent jams, do not overfill the tray. Be sure the top of the stack is below the tray full indicator.

 **NOTE:** If the tray is not adjusted correctly, an error message might appear during printing or the paper might jam.

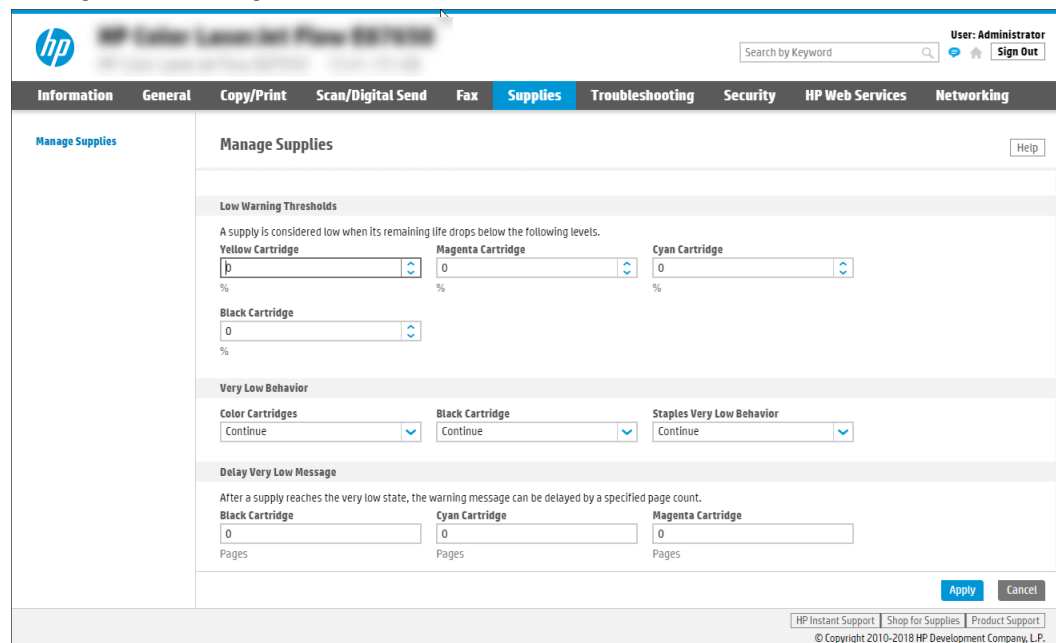
- Close the tray.
- The control panel shows the tray's paper type and size. If the configuration is not correct, follow the instructions on the control panel to change the size or type.

## Configure the Manage Supplies settings

Use the **Manage Supplies** page, located in the **Supplies** tab, to apply settings for the product supplies.

 **NOTE:** To configure the printer to automatically send notifications regarding supplies, see [Configure the printer to send notifications for cartridge or paper events on page 105](#).

**Figure 6-1** Manage Supplies page

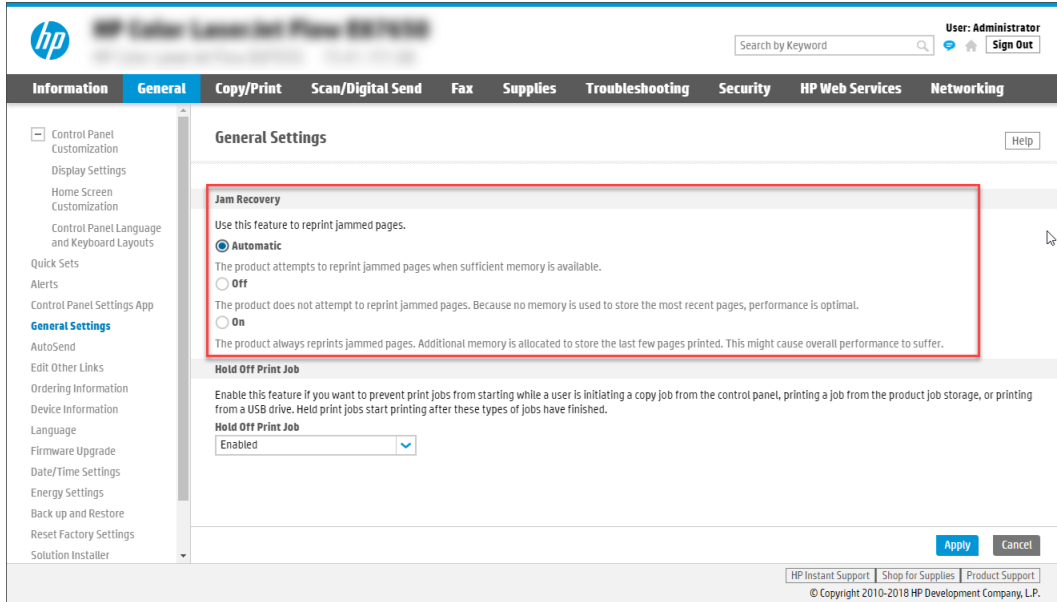


The screenshot displays the 'Manage Supplies' page in the HP EWS interface. At the top, there is a navigation bar with tabs for Information, General, Copy/Print, Scan/Digital Send, Fax, Supplies (selected), Troubleshooting, Security, HP Web Services, and Networking. The main content area is titled 'Manage Supplies' and includes a 'Help' button. Below the title, there are three sections: 'Low Warning Thresholds', 'Very Low Behavior', and 'Delay Very Low Message'. Each section contains various settings for different cartridges and staples, including dropdown menus and input fields. At the bottom right, there are 'Apply' and 'Cancel' buttons. The footer contains links for HP Instant Support, Shop for Supplies, and Product Support, along with a copyright notice for HP Development Company, L.P.

## Configure jam recovery

The **General Settings** page, located in the **General** tab, provides access to the **Jam Recovery** settings. Use this page to specify when jammed pages are printed.

Figure 6-2 Jam Recovery page



## Configure energy-conservation settings

Learn how to configure the printer energy-conservation settings to balance the needs for speed and energy use.

### Introduction

The printer includes several features to help reduce energy consumption.

### Print with EconoMode (mono models only)

Some printers have an EconoMode option for printing drafts of documents. Using EconoMode can use less toner. However, using EconoMode can also reduce print quality.

HP does not recommend the full-time use of EconoMode. If EconoMode is used full-time, the toner supply might outlast the mechanical parts in the toner cartridge. If print quality begins to degrade and is no longer acceptable, consider replacing the toner cartridge.



**NOTE:** If this option is not available in your print driver, you can set it using the printer control panel.

### Configure EconoMode from the print driver

Use the following steps to configure EconoMode from the print driver.

1. From the software program, select the **Print** option.
2. Select the printer, and then click the **Properties** or **Preferences** button.
3. Click the **Paper/Quality** tab.
4. Click the **EconoMode** check box to enable the feature, and then click **OK**.

### Configure EconoMode from the printer control panel (FutureSmart 3)

Use the following steps to configure EconoMode from the control panel for FutureSmart 3.

1. Press the Home  button on the printer control panel.

2. Open the following menus:
  - a. Administration
  - b. General Settings
  - c. Print Quality
3. Select **EconoMode**.
4. Select **On** or **Off** to enable or disable the feature, and then touch **Save** or press the **OK** button.

#### Configure EconoMode from the printer control panel (FutureSmart 4)

Use the following steps to configure EconoMode from the control panel for FutureSmart 4.

1. From the Home screen on the printer control panel, open the **Settings** menu.
2. Open the following menus:
  - a. Copy/Print or Print
  - b. Default Print Options
  - c. Economode
3. Select **On** or **Off** to enable or disable the feature.

#### Set the idle settings (FutureSmart 4 only)

Use the following steps to set the idle settings.


By default the printer stays warm between jobs to optimize speed and print the first page of jobs faster. To conserve energy, set the printer to cool between jobs.

1. From the Home screen on the printer control panel, open the **Settings** menu.
2. Open the following menus:
  - a. General
  - b. Energy Settings
  - c. Idle Settings
3. Adjust the slider to the right to save energy. Touch **Done** to save the setting.

#### Set the sleep timer and configure the printer to use 1 watt or less of power

The printer has several options for the energy-saving sleep timer feature. The time delay to enter the Sleep/Auto Off state is adjustable, and the power usage during the Sleep/Auto Off state varies according to selection for the Wake/Auto On option.

---

 **NOTE:** HP does not recommend using deep sleep settings if you have Security Solutions installed. In some situations, the printer does not wake from deep sleep. For additional information, contact your HP representative.

 **NOTE:** The steps vary according to the type of control panel.


---

Table 6-2 Control panel types

Version	Control panels
FutureSmart 3	
FutureSmart 4	

### FutureSmart 3

Use the following steps to manage the energy settings (FutureSmart 3).

1. Press the Home  button on the printer control panel.
2. Open the following menus:
  - a. Administration
  - b. General Settings
  - c. Energy Settings
  - d. Sleep Timer Settings
3. **4-line control panels only:** Select [Sleep/Auto Off Timer](#), and then select [Enabled](#). Press the **OK** button.
4. Select [Sleep/Auto Off After](#).
5. Use the keypad to enter the appropriate time period, and then touch the [Save](#) button, or press the **OK** button.
6. Select one of the [Wake/Auto On to These Events](#) options:
  - All events: The printer wakes when it receives any print job (through the USB port, network port, or wireless connection), or when someone presses a button on the control panel, or opens any door or tray.
  - Network port: The printer wakes when it receives a print job sent through the network port, or when someone presses a button on the control panel, or opens any door or tray. **With this setting, the printer uses 1 watt or less of power while in the Sleep/Auto Off state.**
  - Power button only: The printer wakes only when someone presses the power button. **With this setting, the printer uses 1 watt or less of power while in the Sleep/Auto Off state.**


## FutureSmart 4

Use the following steps to manage the energy settings (FutureSmart 4).

 [View a video demonstration on how to manage the energy settings](#)

1. From the Home screen on the printer control panel, open the **Settings** menu.
2. Open the following menus:
  - a. **General Settings**
  - b. **Energy Settings**
  - c. **Sleep Settings**
3. Select **Sleep after inactivity** to specify the number of minutes the printer is inactive before it enters sleep mode. Enter the appropriate time period.


---

 **NOTE:** The sleep-mode default time is 0 minutes. Zero (0) indicates that the printer will go to sleep in less than 1 minute.

---

4. Select **Auto Off after sleep** to put the printer into a deeper power save mode after a period of sleep. Enter the appropriate time period.

---

 **NOTE:** By default, the printer will wake from Auto Off in response to any activity other than USB or Wi-Fi, but can be set to wake only to the power button.


---

5. Select **Done** to save the settings.

## Configure the date and time settings

Use the HP Embedded Web Server (EWS) to set the printer date and time settings to match those of your country/region.

---

 **NOTE:** The steps vary according to the type of control panel.

---

**Table 6-3** Control panels

Firmware version	Control panel
FutureSmart 3	

**Table 6-3** Control panels (continued)

Firmware version	Control panel
FutureSmart 4	

1. In the address line of your web browser, type the IP address or host name of the printer to open the EWS. For more information, see [Open the HP Embedded Web Server \(EWS\) on page 20](#).
2. Click the **General** tab.
3. Open the **Date/Time Settings** menu.
4. In the area labeled **Device Time**, configure the date and time.
5. In the area labeled **Date/Time Format**, select the preferred date and time formats.
6. In the area labeled **Network Time Server**, select whether or not the printer should automatically synchronize with a Network Time Server. By default, **Automatically Synchronize with a Network Time Server** is selected.
7. Click the **Apply** button.

## Set the sleep schedule

Use the [Sleep Schedule](#) feature to configure the printer to automatically wake or go into Sleep/Auto Off mode at specific times on specific days of the week.

 **NOTE:** Configure the date and time settings before setting the [Sleep Schedule](#) feature.

## Set the sleep schedule from the printer control panel

Use the following steps to set the printer's sleep schedule.


1. From the Home screen on the printer control panel, scroll to and touch the [Administration](#) button.
2. Open the following menus:
  - a. [General Settings](#)
  - b. [Date/Time Settings](#)
3. Open the [Date/Time Format](#) menu and configure the following settings:
  - Date Format
  - Time Format
4. Touch the [Save](#) button.

5. Open the [Date/Time](#) menu and configure the following settings:
  - Date/Time
  - Time Zone

If you are in an area that uses daylight savings time, select the [Adjust for Daylight Savings](#) box.
6. Touch the [Save](#) button.
7. Touch the back-arrow button to return to the [Administration](#) screen.
8. Open the following menus:
  - a. [General Settings](#)
  - b. [Energy Settings](#)
  - c. [Sleep Schedule](#)
9. Touch the [Add](#) button, and then select the type of event to schedule: [Wake](#) or [Sleep](#).
10. Configure the following settings:
  - Time
  - Event Days
11. Touch the [OK](#) button, and then touch the [Save](#) button.

### Set the sleep schedule from the HP Embedded Web Server (EWS)

Use the following steps to set the sleep schedule.

 **NOTE:** The steps vary according to the type of control panel.

**Table 6-4** Control panels

Firmware version	Control panel
FutureSmart 3	
FutureSmart 4	

1. In the address line of your web browser, type the IP address or host name of the printer to open the EWS. For more information, see [Open the HP Embedded Web Server \(EWS\) on page 20](#).
2. Click the **General** tab.
3. Open the **Date/Time Settings** menu.
4. In the area labeled **Device Time**, configure the date and time.
5. In the area labeled **Date/Time Format**, select the preferred date and time formats.
6. In the area labeled **Network Time Server**, select whether or not the printer should automatically synchronize with a Network Time Server. By default, **Automatically Synchronize with a Network Time Server** is selected.
7. Click the **Apply** button.

The power-button light can indicate the printer status. Use the following table to interpret the printer status.

**Table 6-5 Printer status**

Control-panel status	Power-button status	Printer status
Black or Blank	Blinking in one second intervals	The printer is in Sleep/Auto Off mode The Wake/Auto On Event is set to <b>All events</b>
Black or Blank	Blinking in 0.25 second intervals	The printer is in Sleep/Auto Off mode The Wake/Auto On Event is set to <b>Network port</b>
Active	Blinking	The printer is in one of the following transitional states: <ul style="list-style-type: none"> <li>• Entering Sleep/Auto Off mode</li> <li>• Exiting Sleep/Auto Off mode</li> <li>• Entering Auto On mode</li> <li>• Entering Auto Off mode</li> </ul>

## Enable the USB port for printing

The USB port is disabled by default. Before using this feature, enable the USB port. Use one of the following methods to enable the port:

### Method one: Enable the USB port from the printer control panel

Learn how to enable the USB port from the control panel for either FutureSmart 3 or 4.

#### FutureSmart 3

Use the following steps to enable the USB port from the control panel (FutureSmart 3).

1. From the Home screen on the printer control panel, select the **Administration** button.
2. Open the following menus:

- a. [General Settings](#)
  - b. [Enable Retrieve from USB](#)
3. Select the [Enabled](#) option, and then select the [Save](#) button or press the [OK](#) button.

#### FutureSmart 4

Use the following steps to enable the USB port from the control panel (FutureSmart 4).

1. From the Home screen on the printer control panel, navigate to and select the [Settings](#) menu.
2. Open the following menus:
  - a. [Copy/Print](#) or [Print](#)
  - b. [Enable Device USB](#)
3. Select [Enabled](#) to enable the USB port.

### Method two: Enable the USB port from the HP Embedded Web server (network-connected printers only)

Learn how to enable the USB port from the EWS for either FutureSmart 3 or 4.

#### FutureSmart 3

Use the following procedure to enable the USB port from the EWS for FutureSmart 3.

1. In the address line of your web browser, type the IP address or host name of the printer to open the EWS. For more information, see [Open the HP Embedded Web Server \(EWS\) on page 20](#).
2. On the EWS Home page, open the **Print** tab.
3. On the left side of the screen, click **Retrieve from USB Setup**.
4. Select the **Enable Retrieve from USB** check box.
5. Click **Apply**.

#### FutureSmart 4

Use the following procedure to enable the USB port from the EWS for FutureSmart 4.

1. In the address line of your web browser, type the IP address or host name of the printer to open the EWS. For more information, see [Open the HP Embedded Web Server \(EWS\) on page 20](#).
2. On the navigation bar at the top of the EWS home page, click the **Copy/Print** tab (for MFP models), or the **Print** tab (for SFP models).
3. In the left navigation pane, select **Print from USB Drive Settings**.
4. Select **Enable Print from USB Drive**, and then click **Apply**.

## Configure job accounting

Use the Quota and Statistics Services feature in the Embedded Web Server (EWS) to control the volume of printed or scanned pages on a per-user basis, and to use other job accounting features.

### Introduction


The EWS provides two options for configuring job accounting:

- **Configure job accounting using a quota server** - This option is for large businesses that utilize a quota server for job accounting purposes, such as placing limits on the amount of printed or scanned pages for users.
- **Configure server-less job accounting** - Server-less Job Accounting (SJA) is designed for small businesses with fewer than 10 printers. It provides simple statistics and quota functionality.

SJA is available in FutureSmart firmware v4.6.1 (Date Code 20180531) or newer. SJA includes the following:

- SJA provides the ability to track and report mono and color copied sides, mono and color printed sides, scanned sides, and sent fax sides. By design, there is no interaction with WJA, JAM, HP Security Manager, HP Roam, HP Smart App, HPAC, HPCR, Active Directory, proximity cards, or any other server-based solution.
- SJA utilizes existing local device user account configurations to associate user accounts with User Access Codes. Administrators can utilize generated user access codes or set unique access codes (NOTE: Access codes can NOT be duplicated). Up to 2,000 local device users/accounts can be configured. Device User Account information can be exported from, and imported to, other printers.
- SJA can be configured with a local quota that can block guest printing, copying, and digital sending. SJA with local quotas provides the ability to track and limit, allow or deny, users the ability print, copy, digital send, and fax.

---

 **NOTE:** Outgoing Fax is tracked per User Access Code provided at the front panel. To require a User Access Code and block guest outgoing fax access, use printer permissions, and then remove guest access to Fax.

---

For more information, see the white paper [Server-less Job Accounting \(SJA\) with Local Quotas](#).


## Configure job accounting using a quota server

Connect to a quota server to ensure that each user stays within an acceptable range of printed or scanned pages. Refer to documentation from the company providing the quota server software for more information.

### Before you begin

Connecting to a quota server ensures that each user stays within an acceptable range of printed or scanned pages. When connected, the printer will query the server each time a job is started to ensure that the user has pages available. If the server is unavailable, the user account is not known by the server, or pages are not available for the user, then the user may not be able to complete his or her job. Please refer to documentation from the company providing the quota server software for more information.

---

 **NOTE:** If the printer is connected to an external Job Statistics Service, network-connection problems with that service could prevent users from completing jobs with the printer. Consider disconnecting the Job Statistics Service to prevent conflicts.

---

Disconnect a Job Statistics Service:

1. In the EWS, click the **General** tab.
2. In the left navigation pane, click **Job Statistics Settings**.

3. If one or more Job Statistics Services are listed on this page, select them, and then click the **Remove** button, or click the **Remove All** button to disconnect all services.
4. Click the **Apply** button to save the settings.

### Configure statistics and quota services

Use the following steps to configure statistics and quota services.

Connecting to a quota service ensures that each user stays within a pre-defined range of printed or scanned pages.

When connected, the printer queries the server each time a job is started to ensure that the user has pages available. Any of the following quota-server conditions might prevent the user from completing their job.

- The quota server is unavailable.
- The user account is not known by the server.
- The user has exceeded their page quota.

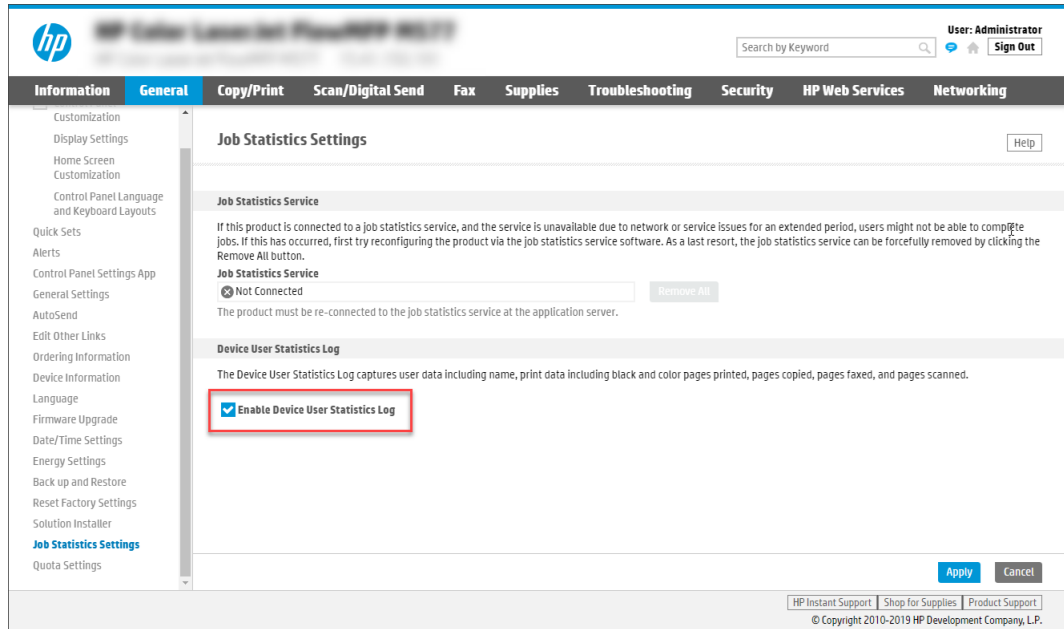
If your business uses a quota server, please refer to documentation from the company providing the quota server software for more information.

For smaller businesses, printing or scanning can also be limited for users or groups with local Device User Accounts (Server-less Job Accounting). For more information, refer to the steps below on how to enable and configure the local quota service.

1. In the EWS, click the **General** tab.
2. In the left navigation pane, click **Job Statistics Settings**. Configure the job statistics settings as follows:
  - a. If the printer is connected to a job statistics service, and the service is available, this connection is listed under **Job Statistics Service**.

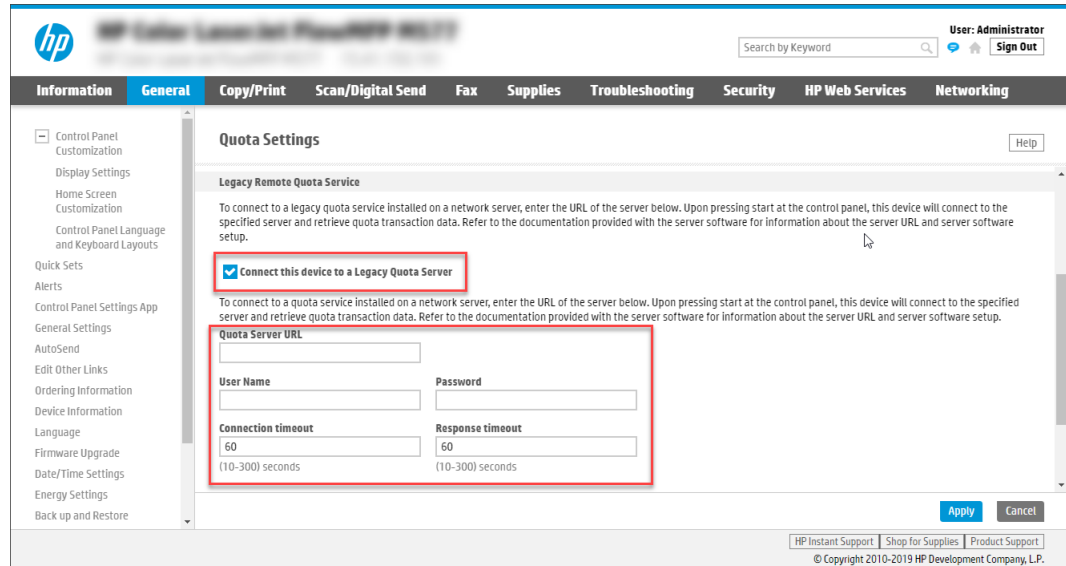
- b. To capture user data in a statistics log, select **Enable Device User Statistics Log**, and then click **Apply**.

Figure 6-3 Job Statistics Settings page



3. In the left navigation pane, click **Quota Settings**. Configure the quota settings as follows:
- a. If the printer is connected to a remote quota service, and the service is available, this connection is listed under **Remote Quota Service**.
- b. To connect to a legacy quota service installed on a network server, select **Connect this device to a Legacy Quota Server**, and complete the following:
- Enter the URL for the quota server in the **Quota Server URL** field.
  - Enter a **Username** and **Password** for accessing the quota server.
  - Set a **Connection Timeout** value from 10-300 seconds, or accept the default setting of 60 seconds. The **Connection Timeout** is the time after which the connection to the Quota Server is closed after the user completes the job.
  - Set a **Response Timeout** value from 10-300 seconds, or accept the default setting of 60 seconds. The **Response Timeout** is the time after which the printer stops attempting to connect to the Quota Server if there is no response from the server.

Figure 6-4 Legacy Quota Server settings



4. To complete the set up, follow these steps:
  - a. Select the **General** tab.
  - b. Select **Job Statistics Settings**, review the selected settings, and then click **Apply**.
  - c. Select **Quota Settings**, review the selected settings, and then click **Apply**.

When a print or scan job is started from the printer control panel, the printer connects to the specified quota server and retrieves quota transaction data, or utilizes the local quota service.

## Configure and use server-less job accounting (SJA)

Configure the server-less job accounting (SJA) feature to apply local quotas. This feature is for small businesses with fewer than 10 printers and provides simple statistics and quota functionality.

### Before you begin

Complete the prerequisites before setting up Server-less Job Accounting with local quotas.

### Prerequisites

- HP FutureSmart version 4.6.1 or newer
- HP Universal Print Driver (UPD) version 6.6.1
- EWS Admin Password

### Get new firmware

Server-less Job Accounting requires HP FutureSmart firmware v4.6.1 or newer. If this version is not available on hp.com, talk to your Pre-Sales technical consultant.



**NOTE:** Local quotas and restricted guest printing features are not available in earlier firmware versions.

### Get UPD version v6.6.1

Server-less Job Accounting requires the HP Universal Print Driver (UPD) v6.6.1. If this version is not available on hp.com, talk to your Pre-Sales technical consultant.


## Set the EWS Administrator password

Server-less Job Accounting requires that an Administrator password be set on the printer. If the admin password is not set, administrators can still add Users and lock down the printer, but the Job Statistics Log and the Local Quota feature will not be available. If the admin password has not been set, you can do this in the EWS. By default, the password is blank out of the box.

1. Open the Embedded Web Server.
2. Select the **Security** tab. Under **General Security**, set the admin password.
3. To change the password length, complexity, and lockout settings for an existing password, select the **Account Policy** option from the left pane.

## Set up server-less job accounting (SJA)

To set up server-less job accounting, follow these steps in the order presented.

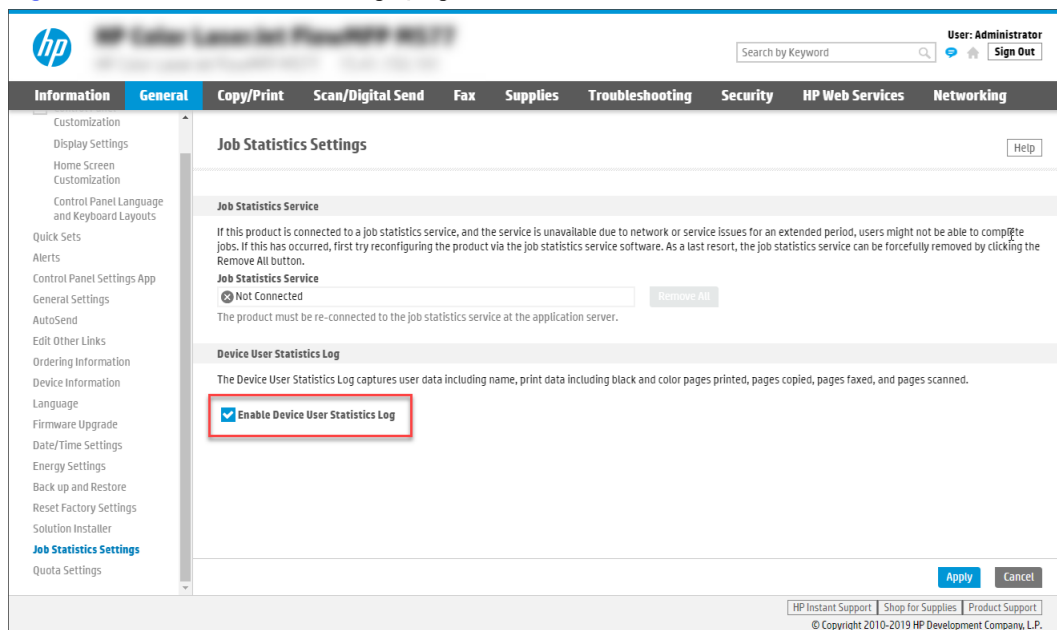
 **NOTE:** For server-less job accounting (SJA) with local quotas to function properly, Device User Statistics and the Local Quota service must be enabled, and all device users must be set up. If using SJA to restrict color, it is best to leave the default Permission Sets untouched.

## Enable job statistics

To enable Job Statistics for users, follow these steps.

1. Open the Embedded Web Server.
2. Select the **General** tab and then select the **Job Statistics Settings** option from the left pane.
3. Scroll to the bottom of the page and under **Device Users Statistics Log**, select the **Enable Device User Statistics Log** check box.

Figure 6-5 Job Statistics Settings page



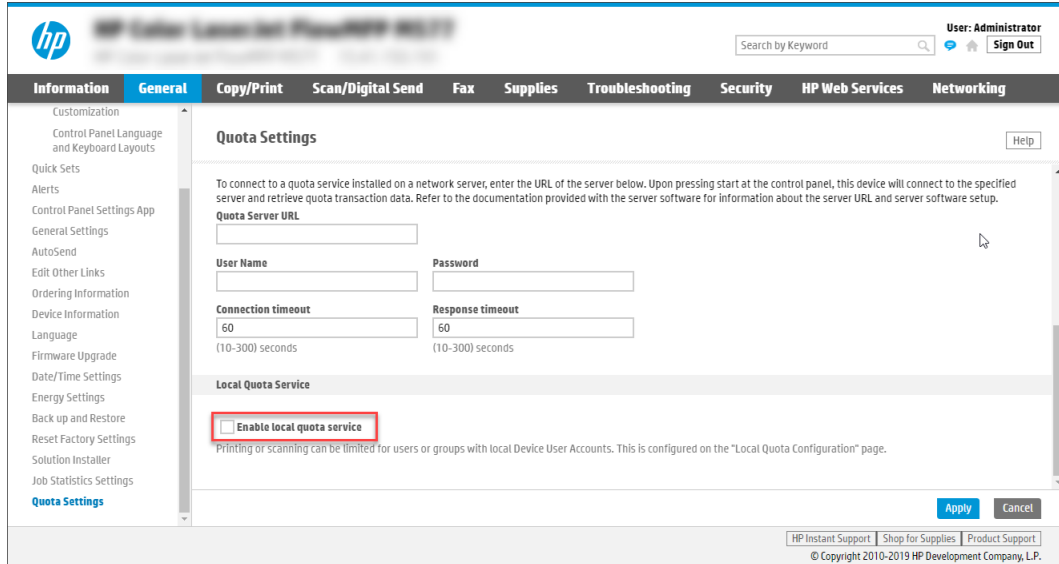
4. Click **Apply**.

## Enable local quotas

To enable local quotas, follow these steps.

1. Open the Embedded Web Server.
2. Select the **General** tab and then select the **Quota Settings** from the left pane.
3. Select the **Enable local quota service** check box, and then click **Apply**.

**Figure 6-6** Enable local quota service



## Add device users

Device User Accounts are used to create User Access Codes that are required for Server-less Job Accounting, Quotas, and locking down the control panel. To add device users and track new users, follow these steps.




**NOTE:** When creating Device Users and utilizing Server-less Job Accounting with Local Quota the User Access Code is used to track usage, identify device permissions, limit, restrict, and allow access to color and mono prints, color and mono copies, digital send, and fax.

1. Open the Embedded Web Server.
2. Select the **Security** tab and then select the **Access Control** option from the left pane.
3. Scroll down and under **Device User Accounts**, click **New**.
4. Type the User information and then click **OK**.
  - **Display Name:** This name will be shown in EWS, the Control Panel, the Job Log, and on the SJA Job Statistics Log exports.
  - **Email Address:** Email address for user, this field is not required.
  - **Network Name:** Windows username to be captured from the print stream. Can be left blank.

- **Access Code:** Used to access the Control Panel. If using Server-less Job Accounting with Local Quota, this is also the code used in the Print driver. This field should be filled in but is not required.
- **Permission Set:** This is the permission set the user can be connected to for custom access to the control panel. If no restrictions are being used or if restrictions are being applied to the **Device User** permission set, the administrator can use the default **Device User**.

---

 **NOTE:** You might find it easier to create additional users in Excel and then import your list. The easiest way is to create one or two users, select **Export** to create a .csv file, modify and add the users in the .csv file, save the file, and then select **Import** to import the list to the EWS.


---

5. Click **Apply**.

### Configure device access (optional)

The administrator can force users to login using an access code or lock down the printer for every activity, however, this is not recommended. If locking down the printer is not required, administrators can skip this step.

---


 **NOTE:** All Server-less Job Accounting Local Quota restrictions are still in place without locking the printer down. When not signed in, all actions performed are completed as a **Guest**.

---

If locking down the printer is required, follow these steps to use Access Control and Permission Sets to configure printer access.

1. Open the Embedded Web Server.
2. Select the **Security** tab and then select the **Access Control** option from the left pane.
3. Scroll down and under **Sign-In and Permission Policies**, clear the **Device Guest** checkbox. All printer options should display with lock icons.

---

 **NOTE:** To restrict outgoing Guest faxes and track every outgoing fax to an account, set the **Device Guest** fax option to locked (sign-in required). Without this set the Guest account faxes and outgoing fax jobs created while a user is signed in via User Access Code are tracked. Outbound faxes sent via the PC Send to Fax driver cannot be tracked currently.

---


4. Make sure the **Sign-In Method** is set to **Local Device**, and then click **Apply**.

### Configure local quotas

To configure and setup local quotas, follow these steps.

1. Open the Embedded Web Server.
2. Select the **Security** tab and then select the **Quota** tab.
3. Select the **Local Quota Configuration** option from the left pane.
4. To set default credits for new users, type the number of credits available for users, and then click **Apply**.

---

 **NOTE:** You can also reset credits for all users to defaults or set the job-in-progress limit requirement to Finish or Stop print jobs after a limit has been met. To make sure copy or print jobs can not be ran without a code, you must default the Guest and Others account to 0 credits. This will force the printer to delete any jobs not having a user code. In the case of users that have no credits left, the printer will receive the job, then delete it and it will display as **Canceled** in the Job Log.

---

5. Adjust the Device User settings and set custom limits for individual users as needed.



**NOTE:** There are three default users after Quotas are enabled. As new device users are created, they will automatically display here with the default credits set at the top of the page. As features are enabled (**Incoming Fax**, **ePrint**, etc.) are enabled, those names will also display here.

- **Guest:** This account is for any jobs done at the printer that is requested by a non-authenticated user (a user without a User Access Code)
  - **Others:** This is less common and is used when a user is authorized, but in a way not recognized by Server-less Job Accounting and Local Quota (Example: User logged in through third party solution, but no User Access Code provided)
  - **Administrator:** This is for the printer administrator account
  - **Incoming Fax** - This is for tracking and possibly limiting any incoming faxes to the printer
  - **ePrint:** This is for tracking and possibly limiting the HP ePrint service
6. To change the default amount of credits a user has, select the check box next to the name and click **Edit**. After making all changes, click **OK**.
  7. To reset the credits available for individual users, select the user you want to change, and then click **Reset**. When prompted to confirm the credit reset, click **Reset**.
  8. To configure Quota credits (the number of credits each image will use), under **Usage Charges**, adjust the **Cost in Credits** values, and click **Apply**. Each printed, scanned, or blank side uses (1) one credit by default.



**NOTE:** Digital Send is utilized for Scan to Folder, Scan to USB, and Scan to Email. Setting the Empty Print side credit cost to 0 will not charge users for blank printed sides.

### Install and setup a print driver in Windows

Learn how to install and setup the Universal Print Driver v6.6.1 for printing with Server-less Job Accounting with Local Quota. This version of UPD might not be available on hp.com and is only available to partners and customers on an as-needed basis.




**NOTE:** If this version of UPD is not be available on hp.com, talk to your Pre-Sales technical consultant. It is available to partners and customers on an as-needed basis.

Currently there is no Mac PPD, Linux PPD, or PC Send to Fax driver for use with Server-less Job Accounting.

1. Obtain version **HP UPD v6.6.1** through your Pre-Sales technical consultant.
2. Install the print driver.
3. After installing UPD v6.6.1, open **Printing Preferences** and on the **Job Accounting** tab, change the **Accounting Type** from **Off** to **User Access Code only**.
  - Type the User Access Code to statically set the User Access Code to be used for this print queue.
  - Leave the User Access Code blank and select the **Always prompt when printing** check the box to open a blank input box that will allow for a User Access Code to be entered for every print.

- Or do both, and enter a User Access Code, and select the **Always prompt when printing** check box to open an input box with the User Access Code shown here set by default for every print, but still allowing for it to be deleted and another code entered before printing if needed.

---

 **NOTE:** In UPD versions earlier than 6.5, the driver will allow for prints to be captured via Custom Name in Job Storage (entry point for User Access Code) and in Job Storage when enabled in the driver as Personal or Stored Job. In UPD version 6.5, the driver will allow for a Custom Name in Job Storage without having to enable Job Storage in the driver. The Custom Name is the User Access Code.

---

### Use server-less job accounting (SJA)


Use SJA to perform the following tracking and reporting tasks.

### Export and print reports (EWS)

To export or print a report for tracked Users from the EWS, follow these steps.

1. Open the Embedded Web Server.
2. Select the **General** tab and select the **Job Statistics Settings** option from the left pane.
3. Scroll to the bottom and under **Device User Statistics Log**, click **Export...** or click **Print**.

---

 **NOTE:** Selecting **Export** will display the standard Windows download dialog box allowing you to open and/or save the file. Sample \*.CSV file shown below.


---

4. When prompted, click **Open** to view the report.
5. After clicking **Export...**, select either a .txt or .csv as the file format to export, choose whether to include User Access Codes, and then click **Export**.

### Reset counters (EWS)

After exporting the counts, it is important to reset the counters back to zero. To do this, click **Reset** after you have confirmed the export.

---

 **NOTE:** If counts are not reset after exporting a report, the next time a report is pulled, the counts will include all counts from the previous report and any new usage data since that last report.

---

1. Open the Embedded Web Server.
2. Select the **General** tab and select the **Job Statistics Settings** option from the left pane.
3. Under **Device User Statistics Log**, click **Reset**.

### Print reports (control panel)

To print a report for tracked Users from the Control Panel, follow these steps.

1. From the Home screen, swipe to and open [Support Tools](#).
2. Open the [Maintenance](#) menu, and then open the [Device User Statistics Log](#) menu.
3. Login using Administrator credentials.
4. Click the print icon to print.

## Reset counters (control panel)

To reset counters from the Control Panel, follow these steps.



**NOTE:** If counts are not reset after exporting a report, the next time a report is pulled, the counts will include all counts from the previous report and any new usage since that last report.

1. From the Home screen, swipe to and open [Support Tools](#).
2. Open the [Maintenance](#) menu, and then open the [Device User Statistics Log](#) menu.
3. From the Access Type drop-down, select the [Administrator Access Code](#).
4. Type the [Access Code](#) and [Sign In](#).
5. Click [Reset](#).

## Sign in using the access code (control panel)

To sign in using a User Access Code, follow these steps.



**NOTE:** To require an Access Code for all control panel features, administrators can optionally lock down the printer.

1. From the Home screen, select [Sign In](#).
2. From the Access Type drop-down, select the [Administrator Access Code](#).
3. Type the [Access Code](#).
4. Select [Sign In](#).

## View quota credits (control panel)

To view local Quota information, users must sign in using their User Access Code.



**NOTE:** After signing in, User Credits are displayed in a banner at the top of the control panel, or by opening the Message Center. If not signed in, the **Guest** account is used, and local quotas will be blocked (by default).

1. From the Home screen, select [Sign In](#).
2. Login using Administrator credentials and select [Sign In](#).



**NOTE:** After signing in, the quota credits are displayed in a banner at the top of the control panel.

3. Select the message icon to view the number of credits, etc.
4. View or take note of the credits, and quota information, etc.
5. When finished, select [Sign Out](#) or allow the printer to automatically log out the user.

## Configure the initial copy view (Expert Copy)

The **Expert Copy** page, located in the **Copy/Print** tab, allows you to enable or disable Expert Copy and set the initial copy view.

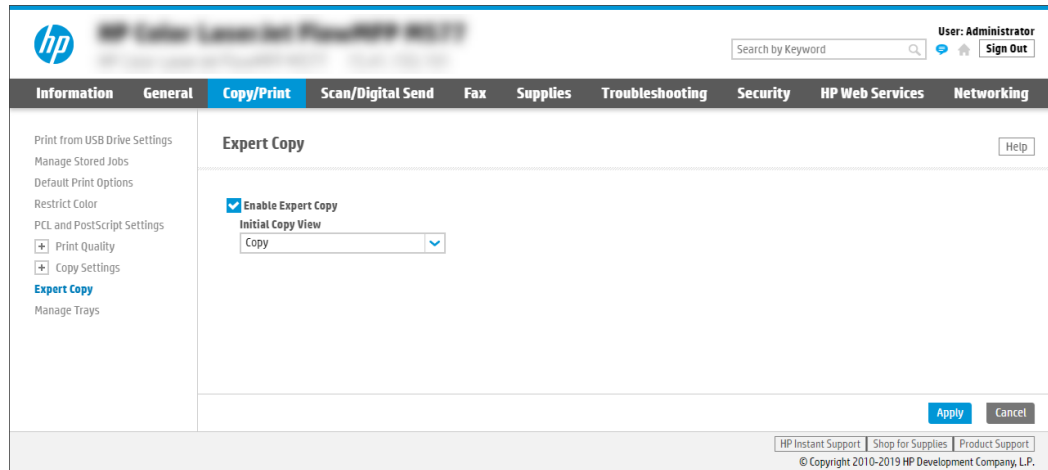


**NOTE:** The **Expert Copy** feature is available only on some HP MFPs with larger control panels. **Expert Copy** mode allows users to perform some copy jobs quickly and with fewer steps than standard copy.

An Administrator can configure which version of copy shows first when the Copy app is opened on the printer's control panel.

- To enable the feature, select **Enable Expert Copy**.
- In the **Initial Copy View** list, select which version of the Copy app to show first, **Copy** (standard copy) or **Expert Copy**.

Figure 6-7 Expert Copy page



## Install third-party solutions

Use the EWS to install third-party software packages that extend or modify the functionality of the printer.

### Introduction

The EWS solution installer page can be used to install example applications that come as part of the software development kit (SDK).

If the solution partner develops applications similar to those provided in the SDK—for example, a custom menu (create a custom menu under administrator menu), a custom internal page (that displays on the EWS), a custom pdl (page description language) using OPI interface, a custom authentication agent—they can be installed by making use of the Solution Installer page on EWS.

Many current third party solutions use OXP 1.5 interface apis in the solution to install the bundle. For example, when Safecom or HPAC (versions before 15.0) secure pull-print applications are configured, they install the solution bundles containing the custom authentication agent by using OXP 1.5 "Install" api automatically without requiring the user to go to EWS to install.

### Before you begin

Before installing a solution, verify that there is a non-blank administrator password set on the **General Security** page under the **Security** tab.

For solutions that require a restart of the printer to complete the installation, click the **Restart Now** button to restart the printer immediately, or click the **Restart Later** button to delay the restart.

Before reinstalling a solution, look for the solution in the **Installed Solutions** area, and then remove the solution. If an existing solution is installed again, a message displays warning that the installation is about to overwrite the existing solution. In this message, click **OK** to continue, or click **Cancel** to stop the installation.

After-market solutions require a digital signature to ensure that they come from a trusted source and have not been modified.

Firmware upgrades cannot be performed using the **Solution Installer** page. Install firmware upgrades on the **Firmware Upgrade** page.

### Step one: Install a solution

Use the following steps to install a new solution.

1. Using the top navigation tabs, click **General**.
2. In the left navigation pane, click **Solution Installer**.
3. Click the **Browse...** button in the **Install New Solution** area to locate and open the installation file from the network.
4. Click the **Install** button. Installed solutions display in the **Installed Solutions** area.

### Step two: Remove a solution

Use the following procedure to remove an installed solution.

1. Select a solution in the **Installed Solutions** area.
2. Click the **Remove...** button.
3. Restart the printer to complete the removal of the solution.

## Configure printing

Use the following information to configure printing features using the EWS.

### Set up default print options

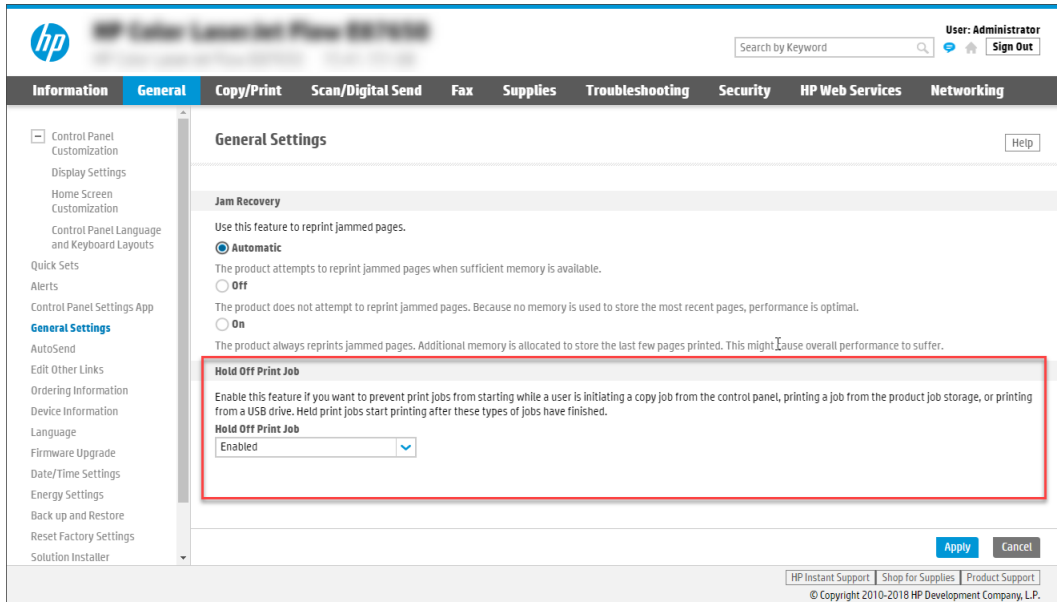
Use the **Default Print Options** page, located in the **Copy/Print** tab, to set the default settings for print jobs on this printer. These settings include the default paper size, paper type, and print quality setting. An Administrator password is required to access this page.

### Configure hold off print jobs

The **General Settings** page, located in the **Copy/Print** tab, provides access to the **Hold Off Print Job** settings, also referred to as "job interrupt."

Use this page to prevent print jobs from starting while a user is initiating a copy job from the control panel, printing a job from the product job storage, or printing from a USB drive. Held print jobs start printing after these types of jobs have finished.

Figure 6-8 Hold Off Print Job page



## Restrict the number of colored pages printed

Use this feature to restrict the number of color pages output from the printer.

### Introduction

For unrestricted color usage, select **Enable color**. To only allow black pages, select **Disable color**. To restrict color based upon the computer application used to print the job or upon user permissions, select **Set custom color access**.

### Configure or restrict the color settings

Learn how to configure or restrict the color settings.

#### Main Color Setting

On the **Restrict Color** page under the **Main Color Setting** area, there are three methods for managing color use on the printer:

- **Enable Color** - Select **Enable color** to print all color print jobs in color.
- **Disable Color** - Select **Disable color** to print all color print jobs in black or grayscale only.
- **Set custom color access** - Select **Set custom color access** to define the color printing capability for computer programs, or to print color jobs in black or grayscale only if the user or group does not have permission to print in color.

#### Main Color Setting

The **Main Color Setting** area of the **Restrict Color** page provides three methods for managing color use on the printer:

- Method one: **Enable Color**  
Select **Enable color** to print all color print jobs in color.
- Method two: **Disable Color**

Select **Disable color** to print all color print jobs in black or grayscale only.

- Method three: **Set custom color access**

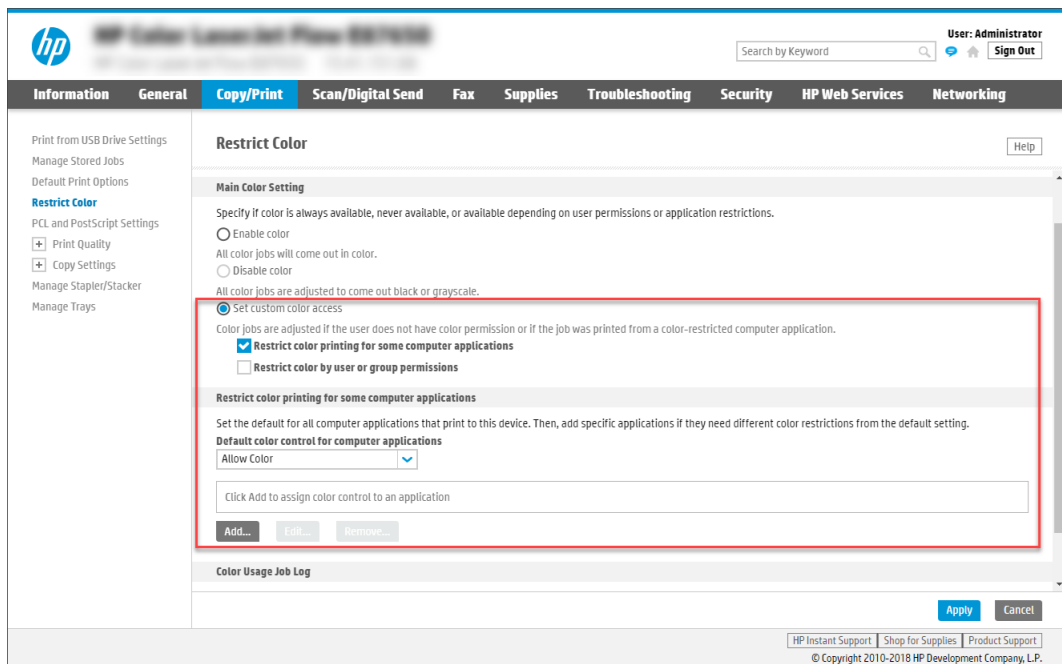
Select **Set custom color access** to define the color printing capability for computer programs, or to print color jobs in black or grayscale only if the user or group does not have permission to print in color.

### Restrict color printing for specific computer applications

Use the **Set custom color access** method to define the color printing capabilities or restrict color printing for some computer applications.

1. Select the **Set Custom Color Access** option.
2. Select the **Restrict color printing for some computer applications** check box.

**Figure 6-9** Settings for restricting color by computer application



3. Set a default color control setting by selecting from the **Default color control for computer applications** drop-down list in the **Restrict color printing for some computer applications** area. The color-control choices are:

- **Remove All Color**
- **Allow Color**

The **Default color control for computer applications** setting applies to print jobs originating from computer programs that do not have a specific color control associated with them.

4. Click **Add** to apply a color control setting to a specific computer program:
  - a. Enter the name of the program to apply a color control setting to in the **Application Name** field.
  - b. Select a color control type from the **Color Control** drop-down list.
  - c. Click **Apply**.

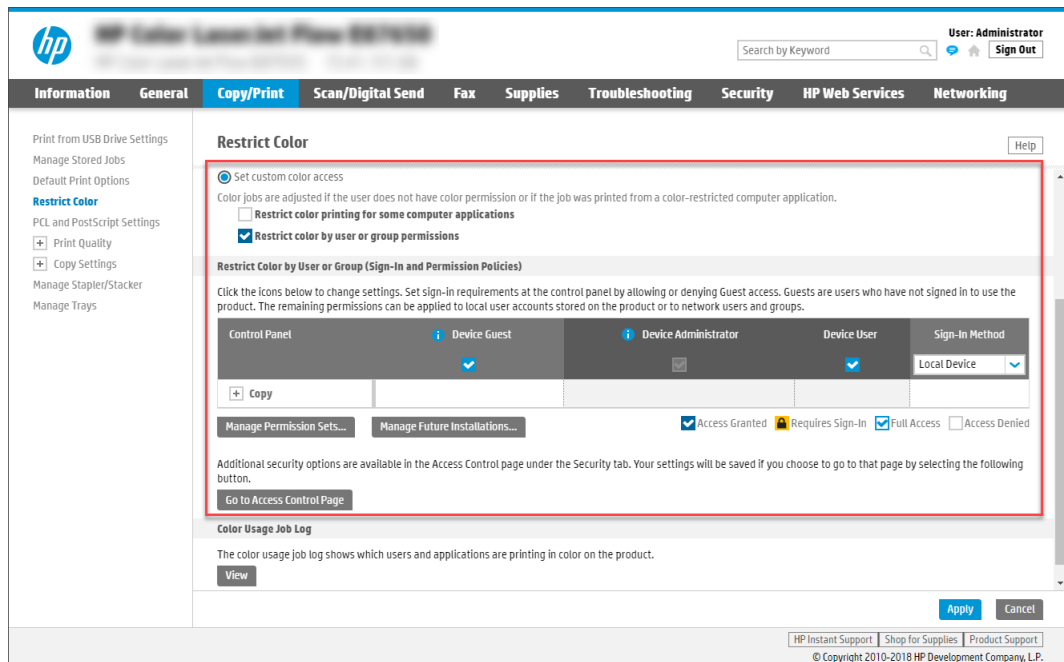
5. Click **Edit** to modify the color control setting for a software program from the list of programs that have a color control setting specified.
6. Click **Remove...** to remove a software program from the list of programs that have a color control setting specified.
7. Review the selected settings, and then click **Apply** to complete the setup.

### Restrict color printing by a user or group

Use the Set custom color access method to restrict color printing by a user or group.

1. Select the **Set Custom Color Access** method in the **Main Color Setting** area.
2. Select the **Restrict color by user or group permissions** check box.

**Figure 6-10** Settings for restricting color by user or group permissions



3. The following users/groups can have their access set:

- **Device Guest**
- **Device Administrator**
- **Device User**

The following levels of access are available for setting:

- **Access Granted**
- **Requires Sign In**
- **Full Access**
- **Access Denied**

4. Click the **Manage Permission Sets...** button to add, edit, copy, or delete a permission set.

5. To view detailed access control settings, click the **Go to Access Control Page** button to open the **Access Control** page on the **Security** tab.
6. Review the selected settings, and then click **Apply** to complete the setup.

### Color Usage Job Log

The Color Usage Job Log displays the following information about the printer and the color prints jobs processed through the printer:

- **Printer Information**
  - **Device Serial Number**
  - **Printer Name**
- **Usage Totals**
  - **Total Jobs in Log**
  - **Total Mono Sides**
  - **Total Color Sides**
  - **Total Sheets**
- **Job Log**
  - The **Job Log** area contains specific information about color print job processed through the printer, including date/time, the print job user, the print job name, the application the print job came from, and information about the number of sides and sheets for the print job.

### Step two: Complete the setup

On the **Restrict Color** page, review the selected settings, and then click **Apply** to complete the setup.

## Customize printer job short-cuts using Quick Sets

Quick Sets are short-cut jobs that are available from the [Home](#) screen or within the [Quick Sets](#) feature on the printer control panel and do not impact the defaults set for the base application.

### Introduction

To use a Quick Set on the printer control panel, enable the base application. Create Quick Sets for the following base applications to improve job accuracy and the time to complete a job:

- **E-mail** – Use email Quick Sets to configure and save commonly used settings for sending jobs from the printer via email as email attachments.
- **Fax** – Use fax Quick Sets to configure and save commonly used settings for fax jobs.
- **Save to Network Folder** – Use Save to Network Folder Quick Sets to configure and save commonly used settings for saving jobs to a network folder.
- **Save to USB** – Use Save to USB Quick Sets to configure and save commonly used settings for saving jobs to a USB device.
- **Copy (MFPs only)** – Use Copy Quick Sets to configure and save commonly used settings for copy jobs.

- **Save to SharePoint®** – Use Save to SharePoint Quick Sets to configure and save commonly used settings for saving jobs to a SharePoint site.

Select from various job settings, such as starting a job immediately upon selection of a quick set or requiring an image preview before starting a job.

## Add and manage Quick Sets

Learn how to add and manage Quick Sets.

### Add a Quick Set

Use the following steps to add a new Quick Set.

1. Using the top navigation tabs, click **General**.
2. In the left navigation pane, click **Quick Sets Setup**.
3. Click **Add** to begin the **Quick Set Wizard**.



---

**NOTE:** Click **Cancel** on any page of the **Quick Set Wizard** to cancel the current changes, exit the **Quick Set Wizard**, and return to the **Quick Sets Setup** page.

---

4. Select a **Quick Set Type**, and then click **Next**. The following Quick Set types are available for selection, depending on your printer:



---

**NOTE:** A **Quick Set Type** only needs to be determined when a quick set is created by using the **General EWS** tab.

---

- **E-mail**
  - **Fax**
  - **Save to Network Folder**
  - **Save to USB**
  - **Copy (MFPs only)**
  - **Scan to SharePoint®**
5. Enter a title for the Quick Set in the **Quick Set Title** (required) field.
  6. Select the location for the quick set to appear on the printer from the **Button Location** drop-down list. This setting determines whether the Quick Set displays on the **Home** screen or within the **Quick Sets** area on the printer control panel.
  7. Enter a description of the Quick Set in the **Quick Set Description** (required) field.
  8. Select a **Quick Set Start Option** to determine what occurs after selecting a Quick Set on the printer control panel, and then click **Next**.
  9. Select settings and complete tasks in the wizard. Click **Next** to proceed to the next page of available options until reaching the **Summary** page.



---

**NOTE:** The settings available in the Quick Set Wizard vary by the type of Quick Set being added. Refer to the tables in the Quick Set settings and options section in [Quick Set settings and options on page 97](#) to see the available settings and options for each type of Quick Set.

---

10. Review the summary of settings, and then click **Finish** to save the Quick Set, or click **Previous** to edit the settings.

### Edit a Quick Set

Use the following steps to edit the settings of an existing Quick Set.

1. Using the top navigation tabs, click **General**.
2. In the left navigation pane, click **Quick Sets Setup**.
3. In the **Quick Sets** area, click the check box next to the appropriate Quick Set, and then click **Edit**. The **Quick Set Wizard** opens.



**NOTE:** Click **Cancel** on any page of the **Quick Set Wizard** to cancel the current changes, exit the **Quick Set Wizard**, and return to the **Quick Sets Setup** page.

4. If necessary, modify the following settings, and then click **Next**:
  - **Quick Set Title**
  - **Button Location**
  - **Control Panel location**
  - **Quick Set Description**
  - **Quick Set Start Option**
5. Select settings and complete tasks in the wizard. Click **Next** to proceed to the next page of available options until reaching the **Summary** page.



**NOTE:** The settings available in the Quick Set Wizard vary by the type of Quick Set being edited. Refer to the tables in the Quick Set settings and options section in [Quick Set settings and options on page 97](#) to see the available settings and options for each type of Quick Set.

6. Review the **Summary** page, and then click **Finish** to save changes made to the Quick Set.

Following is an example of a **Scan to USB Drive** icon, which displays after that quick set has been created.



**Scan to USB Drive**

### Copy a Quick Set

Use the following steps to copy a Quick Set.

1. Using the top navigation tabs, click **General**.

2. In the left navigation pane, click **Quick Sets Setup**.
3. In the **Quick Sets** area, click the check box next to the appropriate Quick Set, and then click **Copy**. The **Quick Set Wizard** opens.



**NOTE:** Click **Cancel** on any page of the **Quick Set Wizard** to cancel the current changes, exit the **Quick Set Wizard**, and return to the **Quick Sets Setup** page.

4. If necessary, modify the following settings, and then click **Next**:
  - **Quick Set Title**
  - **Button Location**
  - **Control Panel location**
  - **Quick Set Description**
  - **Quick Set Start Option**
5. Select settings and complete tasks in the wizard. Click **Next** to proceed to the next page of available options until reaching the **Summary** page.



**NOTE:** The settings available in the Quick Set Wizard vary by the type of Quick Set being copied. Refer to the tables in the Quick Set settings and options section in [Quick Set settings and options on page 97](#) to see the available settings and options for each type of Quick Set.

6. Review the **Summary** page, and then click **Finish** to save the Quick Set.

## Remove a Quick Set

Use the following steps to remove a Quick Set.

1. Using the top navigation tabs, click **General**.
2. In the left navigation pane, click **Quick Sets Setup**.
3. In the **Quick Sets** area, click the check box next to the appropriate Quick Set, and then click **Remove....**
4. When the **Confirmation Page** opens, click **Remove** to finish removing the Quick Set.

## Quick Set settings and options

The following tables list the settings and options available in the Quick Set Wizard when adding, editing, or copying a Quick Set.

**Table 6-6 Address and Message Field Control – Email Quick Sets**

Option	Description
<b>Address Field Restrictions</b>	Use the <b>Address Field Restrictions</b> drop-down list to specify whether users can type an email address or select an email address from an address book.

**Table 6-6 Address and Message Field Control – Email Quick Sets (continued)**

Option	Description
<b>From:</b>	<p>Use the <b>From:</b> drop-down list to set the email address that displays in the From: field of the email.</p> <p>If <b>Default From:</b> is selected, the email address listed in the <b>Default From:</b> field is used.</p> <p>If <b>User's address (sign-in required)</b> is selected, the user is required to sign in to the printer with their email address when using the Quick Set.</p> <p>This field can be set to be user-editable.</p>
<b>Default From:</b>	<p>The <b>Default From:</b> field is used to define the email address used when <b>Default From:</b> is selected in the <b>From:</b> drop-down list.</p>
<b>Default Display Name:</b>	<p>Use this field to set the name displayed on the printer's control panel. If this field is not set, the value in the <b>Default From:</b> displays on the printer's control panel.</p> <p>This field is optional.</p>
<b>To:</b> <b>CC:</b> <b>BCC:</b>	<p>Use these drop-down lists to set the email recipient, CC (carbon copy) and BCC (blind carbon copy) values.</p> <p>The options for each of these fields are:</p> <ul style="list-style-type: none"> <li>• <b>User's address (sign-in required)</b></li> <li>• <b>Blank</b></li> <li>• <b>Specify address</b></li> </ul> <p>These fields can be set to be user-editable.</p>
<b>Subject:</b>	<p>Use this field to set the value that appears in the subject line of the email.</p> <p>This field can be set to be user-editable.</p>
<b>Message:</b>	<p>Use this field to set the value for the body of the email.</p> <p>This field can be set to be user-editable.</p>

**Table 6-7 Signing and Encryption – Email Quick Sets**

Option	Description
<b>Signing</b>	<p>Use the <b>Signing</b> drop-down list to specify whether the email sent using the Quick Set is digitally signed.</p> <p>This field can be set to be user-editable.</p>
<b>Hashing Algorithm</b>	<p>Use the <b>Hashing Algorithm</b> drop-down list to set the type hashing algorithm used with signed emails. The following hashing algorithms are available:</p> <ul style="list-style-type: none"> <li>• <b>SHA-1</b></li> <li>• <b>SHA-256 (recommended)</b></li> <li>• <b>SHA-384</b></li> <li>• <b>SHA-512</b></li> </ul>
<b>Encryption</b>	<p>Use the <b>Encryption</b> drop-down list to specify whether the email sent using the Quick Set is encrypted.</p> <p>This field can be set to be user-editable.</p>

**Table 6-7** Signing and Encryption – Email Quick Sets (continued)

Option	Description
<b>Encryption Algorithm</b>	Use the <b>Encryption Algorithm</b> drop-down list to set the encryption algorithm used for encrypted emails sent using the Quick Set.
<b>Attribute for Recipient Public Key</b>	The <b>Attribute for Recipient Public Key</b> field is used to set the attribute used for retrieving the email recipient's public key from LDAP for signed or encrypted emails.

**Table 6-8** Scan settings – Email, Fax, Save to Network Folder, and Save to USB Quick Sets

Option	Description
<b>Default File Type</b>	Select the default file type for the scanned document: <ul style="list-style-type: none"><li>• PDF</li><li>• JPEG</li><li>• TIFF</li><li>• MTIFF</li><li>• XPS</li><li>• PDF/A</li><li>• Text (OCR)</li><li>• Unicode Text (OCR)</li><li>• RTF (OCR)</li><li>• Searchable PDF (OCR)</li><li>• Searchable PDF/A (OCR)</li><li>• HTML (OCR)</li><li>• CSV (OCR)</li></ul>
<b>Default Color Preferences</b>	Select the default color setting for the scanned document: <ul style="list-style-type: none"><li>• Color</li><li>• Black</li><li>• Black/Gray</li><li>• Automatically detect</li></ul>
<b>Default Output Quality</b>	Select the default output quality for the scanned document: <ul style="list-style-type: none"><li>• Low (small file)</li><li>• Medium</li><li>• High (large file)</li></ul>

**Table 6-8 Scan settings – Email, Fax, Save to Network Folder, and Save to USB Quick Sets (continued)**

Option	Description
<b>Default Resolution</b>	Select the default scan resolution for the scanned document: <ul style="list-style-type: none"> <li>• 75 dpi</li> <li>• 150 dpi</li> <li>• 200 dpi</li> <li>• 300 dpi</li> <li>• 400 dpi</li> <li>• 600 dpi</li> </ul>

**Table 6-9 File settings – Email, Save to Network Folder, and Save to USB Quick Sets**

Feature	Description
<b>File Name Prefix</b>	Set the default file name prefix used for files saved to a network folder.
<b>Default File Name</b>	Default file name for the file to be saved.  Select the <b>User editable</b> check box to make this setting editable at the product control panel.
<b>File Name Suffix</b>	Set the default file name suffix used for files saved to a network folder.  Duplicate filename suffix default [filename]_YYYYMMDDT
<b>File Number Format</b>	Select a file name format for when the job is divided into multiple files.
<b>Default File Type</b>	Select the file format for the saved file.  Select the <b>User editable</b> check box to make this setting editable at the product control panel.
<b>File Name Preview</b>	Enter a file name, and then click the <b>Update Preview</b> button.
<b>Default Color Preference</b>	Select whether the file is in black & white or in color.
<b>Default Output Quality</b>	Select the quality for the file. Higher-quality images require a larger file size than lower-quality images, and they take more time to send.
<b>Default Resolution</b>	Set the resolution for the file. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller.
<b>Compression</b>	Specify if the file uses Normal or High compression when saving a scanned document as a PDF or XPS file. If compression is set to High, the scanned file is smaller, but the scanning process might take longer than Normal compression.
<b>Black TIFF Compression</b>	Select the black TIFF compression algorithm to be used to compress the generated TIFF file.
<b>Color/Grayscale TIFF Compression</b>	Select the color/grayscale TIFF compression algorithm to be used to compress the generated TIFF file.
<b>PDF encryption</b>	If the file type is PDF, then this option encrypts the output PDF file. A password must be specified as part of the encryption. The same password must be used to open the file. The user will be prompted to enter a password prior to scanning their job if one has not been set prior to pressing start.
<b>Disable OCR file types</b>	Select this setting to prevent OCR file types from being available from the product control panel.
<b>Enable Blank Page Suppression</b>	If the <b>Enable Blank Page Suppression</b> option is enabled, blank pages will be ignored.

**Table 6-10 Copy settings – Copy Quick Sets**

Option	Description
<b>Copies</b>	Set the default number of copies.
<b>Sides</b>	Select a <b>Copy Sides</b> option: <ul style="list-style-type: none"><li>• <b>1-sided original, 1-sided output</b></li><li>• <b>2-sided original, 2-sided output</b></li><li>• <b>1-sided original, 2-sided output</b></li><li>• <b>2-sided original, 1-sided output</b></li></ul>
<b>Color/Black</b>	Specify whether copies are printed in color or in black and white: <ul style="list-style-type: none"><li>• <b>Auto Detect:</b> Prints color documents in color (for printers that support color copying), and black and white documents in black and white. For mixed documents, the printer will determine whether to print in color or black and white.</li><li>• <b>Color:</b> Prints documents in color (for printers that support color copying).</li><li>• <b>Black:</b> Prints documents in black and white.</li></ul>
<b>Collate</b>	For printers that support print-job finishing, each set of copied pages are assembled in the same order as the original document. <b>NOTE:</b> If the printer has a stapler installed, select a staple option. To not staple the copies, select <b>None</b> . Select a <b>Collate</b> option. <ul style="list-style-type: none"><li>• <b>Collate on (Sets in page order):</b> If making more than one copy, select to assemble pages in the correct order for each set of copies.</li><li>• <b>Collate off (Pages grouped):</b> Select to group the same pages together. For example, if making five copies of an original document that has two pages, all five first pages are grouped together and all five second pages are grouped together.</li></ul>
<b>Reduce/Enlarge</b>	Use the <b>Reduce/Enlarge</b> feature to scale the size of the document up or down. Select one of the predefined percentages, or touch the <b>Scaling</b> field, and enter a percentage between 25 and 400 for the flatbed scanner and between 25 and 200 for the document feeder. You can also select these options: <ul style="list-style-type: none"><li>• <b>Auto:</b> The printer automatically scales the image to fit the paper size in the tray.</li><li>• <b>Auto Include Margins:</b> The printer reduces the image slightly to fit the entire scanned image within the printable area on the page.</li></ul> <b>NOTE:</b> To reduce the image, select a scaling percentage that is less than 100. To enlarge the image, select a scaling percentage that is greater than 100.
<b>Paper Selection</b>	Select which tray to use when printing or making copies: <ul style="list-style-type: none"><li>• <b>Manually feed:</b> The <b>Paper Selection</b> option is automatically set to <b>Tray 1: Any Type, Any Size</b></li><li>• <b>Automatically Detect:</b> Automatically matches the paper size of the original to a paper size in one of the trays</li><li>• <b>Tray 1: Any Type, Any Size</b></li><li>• <b>Tray 2: Plain, Letter (8.5x11)</b></li></ul>

**Table 6-10 Copy settings – Copy Quick Sets (continued)**

Option	Description
<b>Image Adjustment</b>	<p>Use the settings to improve the overall quality of the copy. For example, adjust the <b>Darkness</b> and <b>Sharpness</b>, and use the <b>Background Cleanup</b> setting to remove faint images from the background or to remove a light background color.</p> <ul style="list-style-type: none"> <li>• <b>Darkness:</b> Adjust to increase or decrease the amount of white and black in the colors</li> <li>• <b>Contrast:</b> Adjust to increase or decrease the difference between the lightest and darkest color on the page</li> <li>• <b>Background Cleanup:</b> Adjust if you are having trouble copying a faint image</li> <li>• <b>Sharpness:</b> Adjust to sharpen or soften the image. For example, increasing the sharpness could make text look clearer, but decreasing it could make photographs look smoother.</li> </ul>
<b>Content Orientation</b>	<p>For some features to work correctly, specify the way the content of the original document is placed on the page.</p> <p>If you are making two-sided copies, select a 2-sided format option.</p> <p><b>Orientation:</b></p> <ul style="list-style-type: none"> <li>• <b>Portrait:</b> The short edge of the page is along the top.</li> <li>• <b>Landscape:</b> The long edge of the page is along the top.</li> </ul> <p><b>2-Sided Format:</b></p> <ul style="list-style-type: none"> <li>• <b>Book-style:</b> The back side of the original is printed right-side-up, and the back side of the copy is printed the same way. Use this option for originals and copies that are bound along the left edge.</li> <li>• <b>Flip-style:</b> The back side of the original is printed upside-down, and the back side of the copy is printed the same way. Use this option for originals and copies that are to be bound along the top edge.</li> <li>• <b>Book-style original; Flip-style copy:</b> The back side of the original is printed right-side-up, but the back side of the copy is printed upside-down. Use this option when the original is bound along the left edge, but the copies need to be bound along the top edge.</li> <li>• <b>Flip-style original; Book-style copy:</b> The back side of the original is printed upside-down, but the back side of the copy is printed right-side-up. Use this option when the original is bound along the top edge, but the copies need to be bound along the left edge.</li> </ul>
<b>Optimize Text/ Picture</b>	<p>Select the option for how to handle output of a particular type content being printed:</p> <ul style="list-style-type: none"> <li>• <b>Manually adjust:</b> Manually optimize the setting for each document</li> <li>• <b>Text:</b> Use for documents that contain mostly text</li> <li>• <b>Printed picture:</b> Use for line drawings and preprinted images, such as magazine clippings or pages from books</li> </ul> <p><b>NOTE:</b> If bands of irregular intensity print on the copies, try selecting <b>Printed picture</b> to improve the quality.</p> <ul style="list-style-type: none"> <li>• <b>Photograph:</b> Use for photographic prints</li> </ul> <p>Select an <b>Optimize For</b> value for the manual adjustment.</p>

**Table 6-10 Copy settings – Copy Quick Sets (continued)**

Option	Description
<b>Pages per Sheet</b>	<p>Select how many pages to print on one sheet and the page order: to copy to one, two, or four <b>Pages per Sheet</b> and select whether to <b>Add page borders</b>.</p> <p><b>Pages per Sheet</b></p> <ul style="list-style-type: none"> <li>• <b>One (1)</b></li> <li>• <b>Two (2)</b></li> <li>• <b>Four (4)</b></li> </ul> <p><b>Page Order</b></p> <ul style="list-style-type: none"> <li>• <b>Right, then down:</b> Prints the pages in rows</li> <li>• <b>Down, then right:</b> Prints the pages in columns</li> </ul> <p>Click the <b>Add page borders</b> check box to add borders on the pages.</p>
<b>Original Size</b>	<p>Specify the size of the original document:</p> <ul style="list-style-type: none"> <li>• <b>Automatically detect</b></li> <li>• <b>Letter (8.5x11)</b></li> <li>• <b>Mixed Letter/Legal</b></li> <li>• <b>Legal (8.5x14)</b></li> <li>• <b>Executive (7.25x10.5)</b></li> <li>• <b>Statement (5.5x8.5)</b></li> <li>• <b>Oficio (8.5x13)</b></li> <li>• <b>A4 (210x297 mm)</b></li> <li>• <b>A5 (148x210 mm)</b></li> <li>• <b>B5 (182x257 mm)</b></li> <li>• <b>16k (195x270 mm)</b></li> <li>• <b>DPostcard JIS (148x200 mm)</b></li> <li>• <b>Oficio (216x340 mm)</b></li> </ul>
<b>Booklet</b>	<p>Select to have <b>Booklet Format</b> off or on. If on, select either a <b>1-sided</b> or <b>2-sided</b> booklets and whether to enable <b>Borders on each page</b>.</p>
<b>Edge-to-Edge</b>	<p>Use to avoid shadows that can display along the edges of copies when the original document is printed close to the edges.</p> <p>Combine this feature with the <b>Reduce/Enlarge</b> feature to ensure that the entire page is printed on the copies.</p> <p>When the <b>Edge-to-Edge</b> feature is turned on, the printer minimizes margins and prints as close to the edge of the paper as possible.</p>
<b>Multi-feed Detection</b>	<p>Use this feature to detect when multiple pages are fed simultaneously into the ADF (automatic document feeder) or sheet-feed scanner, alert the user, and stop the scanning job so the proper action can be taken. By default this feature is <b>Enabled</b> so that it automatically improves the scanning experience and results.</p>
<b>2-sided ID Scan</b>	<p>Select to have <b>2-sided ID Scan</b> on or off to scan both sides of a card, such as an identification card or business card.</p>

**Table 6-10** Copy settings – Copy Quick Sets (continued)

Option	Description
<b>Book Mode</b>	Select to have <b>Book Mode</b> off or on.

## Example Quick Sets

Below is an example of what the **Quick Sets** area looks like after quick sets have been created.

**Quick Sets** Help

**Quick Sets List**

Quick Sets are pre-configured sets of options that allow users to easily start a job without having to manually configure frequently used job settings. A Quick Set can be accessed from the Home screen or from the app associated with the Quick Set. Quick Sets are saved as unique jobs that do not impact the default options of the apps.

Show all

Quick Set Name	Status	Quick Set Type
<input type="checkbox"/> Home Screen		
<input type="checkbox"/> Quick Sets		
<input type="checkbox"/> Photo Quick Set	✓	Copy
<input type="checkbox"/> Save to USB	✓	Scan to USB Drive
<input type="checkbox"/> Test Network Folder	✓	Scan to Network Folder

Quick Sets that are displayed on the control panel can only be moved using the [Control Panel Customization](#) page.

Add... Edit... Copy... Remove...

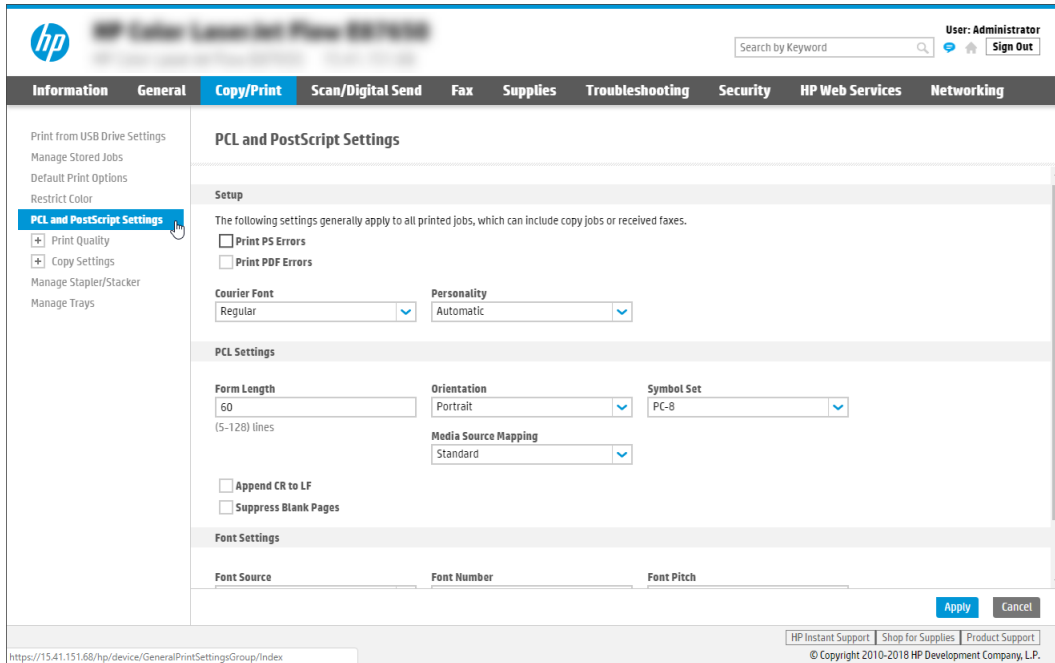
## Set the default PCL, PostScript, and font settings for a printer

Use the **PCL and PostScript Settings** page, located in the **Copy/Print** tab, to set the default PCL, PostScript, and font settings for print jobs on this printer.



**NOTE:** The specific application or printer driver you use might override the settings you configured on this page.

Figure 6-11 PCL and PostScript Settings page



## Configure print quality and allowable paper types per tray

Use the **Print Quality** pages to configure the Image Registration settings for each individual tray and control the list of allowable paper types for this printer.

Go to the Copy/Print tab of the EWS and expand Print Quality to access the following pages:


- On the **Image Registration** page, click the **Modify** link next to each tray to modify the image registration shift settings.
- On the **Adjust Paper Types** page, select the radio button next to the paper type to enable or disable it on the printer. Paper types that have been disabled cannot be configured in the tray settings.
- On the **Auto Sense Behavior** page, select the auto-sense action for **Tray 1** and **All Other Trays**. The product can use sensors to detect the attributes of the paper and adjust settings to automatically achieve the best print quality, however, this can slow printing speed.

## Configure the printer to send notifications for cartridge or paper events

Learn how to configure the printer to send automatic notifications for cartridge or paper events.

### Introduction


Configure the printer to automatically send alerts for several events, such as when supplies are low or when there is a paper jam. The alert can be sent as an email, a text message to a mobile phone, or as a posting to a website.

 **NOTE:** When a **Low** or **Very Low** message displays on the control panel or in Supplies Status page, you can continue to print and scan until the cartridge reaches end of life. The cartridge does not need to be replaced until the print quality becomes unacceptable or is depleted.


## Before you begin

Administrators need the following information before beginning the configuration process.

- Administrative access to the printer
- DNS suffix (e.g., companyname.com)
- SMTP server (e.g., smtp.mycompany.com)

 **NOTE:** If you do not know the SMTP server name, SMTP port number, or authentication information, contact the email/Internet service provider or system administrator for the information. SMTP server names and port names are typically found by doing an Internet search. For example, use terms like "Gmail smtp server name" or "Yahoo smtp server name" to search.

- SMTP server authentication requirements for outgoing email messages, including the user name and password used for authentication, if applicable.

 **NOTE:** Consult your email service provider's documentation for information on digital sending limits for your email account. Some providers may temporarily lock your account if you exceed your sending limit.

## Step one: Set up the outgoing email servers (SMTP)

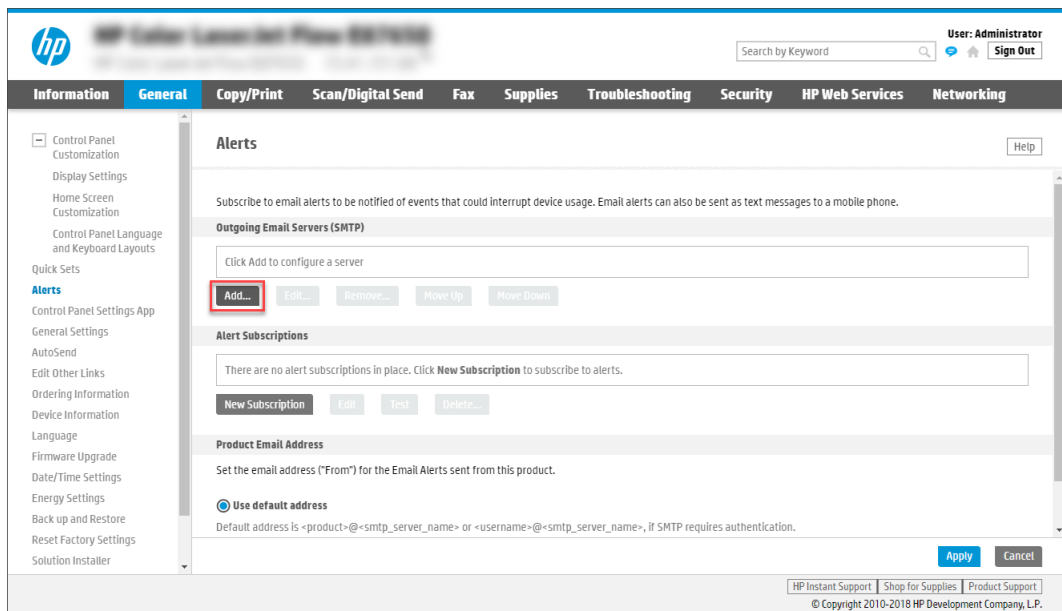
Learn how to set up the outgoing email servers for notifications.

### Start the Outgoing E-mail Servers (SMTP) wizard

Use the following procedure to start the wizard.

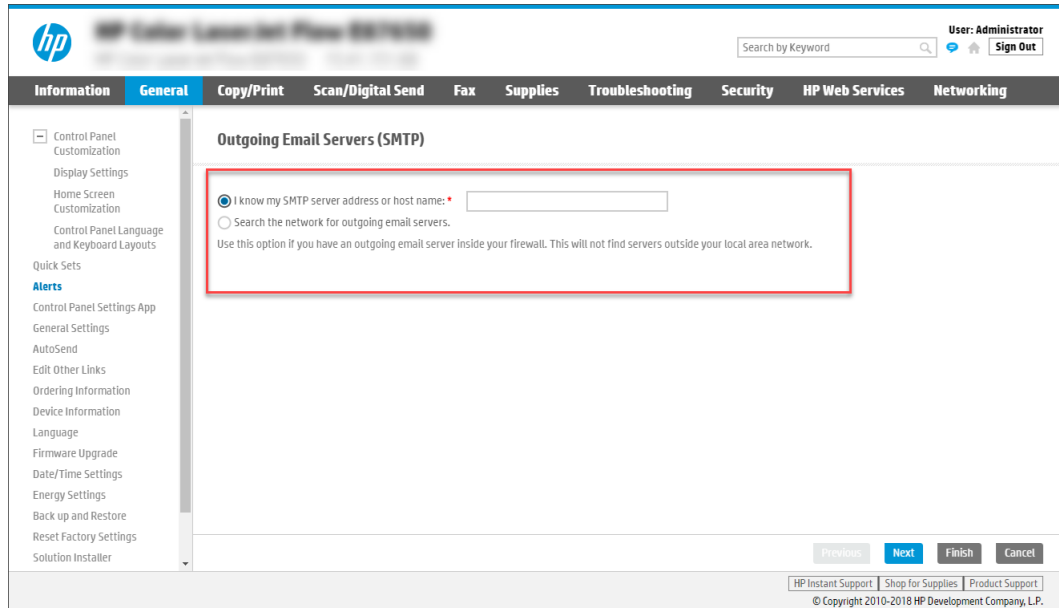
1. Using the top navigation tabs, click **General**.
2. In the left navigation pane, click **Alerts**.
3. Click the **Add** button in the **Outgoing E-mail Servers (SMTP)** area.

**Figure 6-12** Location of Add button



4. On the **Outgoing E-mail Servers (SMTP)** page, select one of the following options and complete the configuration using the procedures that follow.

**Figure 6-13** Options on the Outgoing E-mail Servers (SMTP) page



#### Option one: Use a server already in use by another function

Use this option when SMTP is already configured by another app and does not include the **Automated e-mail** option.


1. Select **Use a server already in use by another function**, and then click **Next**.
2. Verify the information, and then click **Finish**.

#### Option two: I know my SMTP server address or host name

Use the following steps if you know the SMTP server address or host name.

1. Select **I know my SMTP server address or host name**, enter the SMTP server address in the field, and click **Next**.
2. Enter the **Server Name** and **Port Number**, and then click **Next**.

 **NOTE:** In most cases, the default port number does not need to be changed.

 **NOTE:** If you are using a hosted SMTP service such as gmail, verify the SMTP address, port number, and SSL settings from the service provider's website or other sources. Typically, for gmail, the SMTP address is smtp.gmail.com, port number 465, and the SSL should be enabled. Please refer to online sources to confirm these server settings are current and valid at the time of configuration

3. On the **Server Authentication Requirements** page, select one of the following from the drop-down list:
  - Select **Use credentials of user to connect after Sign In at the control panel**, and click **Next** (MFP and network scanner printers only).

**-OR-**

- Select **Always use these credentials**, and enter a **Username** and **Password** in the fields. Click **Next**.
4. On the **Server Usage** page, select which of the following functions will send email through the server:
    - **E-mail**: Send scanned documents and job status notifications
    - **Fax**: Send faxes when the fax send method is set to Internet Fax
    - **Automated E-mails**: Device alerts sent to an administrator or archived faxes are examples of automated emails sent by this device
    - **AutoSend**: Send device information to HP or other recipients
  5. On the **Summary and Test** page, review the settings. Enter an email address in the **Send a test e-mail to** field, and click **Test** to test the configuration. Click **Finish** when done.

### Option three: Search network for outgoing email server

Use this option to search for outgoing SMTP servers.




---

**NOTE:** This option finds outgoing SMTP servers inside your firewall only.

---

1. Select **Search network for outgoing e-mail server**, and then click **Next**
2. Select the appropriate server from the **Finding SMTP servers** list, and then click **Next**.
3. Set the basic information necessary to connect to the server, and then click **Next**.
4. On the **Server Authentication Requirements** page, select one of the following from the drop-down list:
  - Select **Use credentials of user to connect after Sign In at the control panel**, and click **Next** (MFP and network scanner printers only).

-OR-

  - Select **Always use these credentials**, and enter a **Username** and **Password** in the fields. Click **Next**.
5. On the **Server Usage** page, select which of the following functions will send email through the server:
  - **E-mail**: Send scanned documents and job status notifications
  - **Fax**: Send faxes when the fax send method is set to Internet Fax
  - **Automated E-mails**: Device alerts sent to an administrator or archived faxes are examples of automated emails sent by this device
  - **AutoSend**: Send device information to HP or other recipients
6. On the **Summary and Test** page, review the settings. Enter an email address in the **Send a test e-mail to** field, and click **Test** to test the configuration. Click **Finish** when done.

### Step two: Set up the alert subscriptions

An alert subscription is a group of one or more recipients that are notified of printer events. Configure several subscriptions, with different recipients, to be notified of different printer events.

1. In the **Alert Subscriptions** area, click **New Subscription** to open the Alerts configuration page. Follow the steps in sequence on this page.
2. In the **Step 1: Type the subscription name** area, enter a name for the subscription in the **Alert Subscription Name** field.
3. In the **Step 2: Recipients for this alert subscription** area, enter the recipients in the **Alert Recipients** field.



**NOTE:** Use email addresses, mobile text message addresses, web URLs, or a combination of these. Separate each recipient with a comma or semicolon.

4. In the **Step 3: Select Alerts** area, select which alerts these recipients will receive, and set alerts for several events for the same subscription. Click **Show All Alerts** for the complete list of alerts for the printer.
5. To suppress control panel messages on the printer related to any of these events, in the **Step 4: Select Control Panel Messages to Suppress** area, select the appropriate options from the list of available messages. Suppressing the messages means that no user interaction is required at the printer when the event occurs.



**NOTE:** This feature is not supported by network scanner printers.

6. In the **Step 5: Select e-mail attachments (optional)** area, select the attachments to include with each email alert messages for the subscription.
7. When finished configuring the subscription, click **OK**.

### Step three: Set up the Product E-mail Address

Set the email address "From" for the email alerts sent from the printer.

Select **Use default address**, or select **Specify address** to add a specific email address in the field that appears.

### Step four: Complete the setup

On the **Alerts** page, review the selected settings, and then click **Apply** to complete the setup.

### Order supplies

Use the following information to order supplies.

**Table 6-11 Ordering supplies**

Ordering method	Contact information
Order supplies and paper	<a href="http://www.hp.com/go/suresupply">www.hp.com/go/suresupply</a>
Order through service or support providers	Contact an HP-authorized service or support provider.
Order using the HP Embedded Web Server (EWS)	To access, in a supported Web browser on your computer, enter the printer IP address or host name in the address/URL field. The EWS contains a link to the HP SureSupply Web site, which provides options for purchasing Original HP supplies.

# Configure copying

Use this feature to configure the default options and features for copy jobs.



**NOTE:** All features might not be available on every device.

## Introduction

Use this feature to configure the default options for copy jobs.

## Set up default copy settings

Use the following steps to set up the default copy settings for a printer.

1. From the Embedded Web Server, open Copy Settings.
  - **HP FutureSmart 3:** Navigate to the **Copy Settings** area.
  - **HP FutureSmart 4:** Select the **Copy/Print** tab and then select **Copy Settings** from the left pane.
2. Use the following options available to configure any settings.

**Table 6-12 Copy Settings**

Option	Description
<b>Copies</b>	Set the default number of copies.
<b>Sides</b>	Select a <b>Copy Sides</b> option: <ul style="list-style-type: none"><li>• <b>1-sided original, 1-sided output</b></li><li>• <b>2-sided original, 2-sided output</b></li><li>• <b>1-sided original, 2-sided output</b></li><li>• <b>2-sided original, 1-sided output</b></li></ul>
<b>Color/Black</b>	Specify whether copies are printed in color or in black and white: <ul style="list-style-type: none"><li>• <b>Automatically Detect:</b> Prints color documents in color (for printers that support color copying), and black and white documents in black and white. For mixed documents, the printer will determine whether to print in color or black and white.</li><li>• <b>Color:</b> Prints documents in color (for printers that support color copying).</li><li>• <b>Black:</b> Prints documents in black and white.</li></ul>
<b>Quality Level</b>	Select a <b>Quality Level</b> : <ul style="list-style-type: none"><li>• <b>Professional</b></li><li>• <b>General Office</b></li></ul>
<b>Watermark</b>	Use the <b>Watermark</b> options to specify if you want to include a text watermark and what to include in the watermark.  Select a <b>Watermark Type</b> : <ul style="list-style-type: none"><li>• <b>None</b></li><li>• <b>Text</b></li></ul> Under <b>Copy Settings</b> (left pane), click <b>Watermark</b> . Use the <b>Watermark</b> page to enter custom text or select pre-defined text.

**Table 6-12 Copy Settings (continued)**

Option	Description
<b>Stamps</b>	<p>Use the <b>Stamps</b> options to specify if you want to include a personalized text stamp and where to position the stamp.</p> <p>Under <b>Stamps</b>, select the position you want for the stamp, such as <b>Top Right</b>.</p> <p>Enter or select the <b>Stamp Content</b>:</p> <ul style="list-style-type: none"><li>• To enter personalized text: Select the empty text box, and then enter text in the box. Choose the font, text size and color.</li><li>• To use pre-defined text: Select the list box (default is <b>None</b>). In the list, select a pre-defined text stamp, such as <b>Date and time</b>.</li></ul> <p>Under <b>Copy Settings</b> (left pane), click <b>Stamps</b> to customize the stamps available to users or to enforce use of a stamp in a certain position.</p>
<b>Scan Mode</b>	<p>Select a <b>Scan Mode</b>:</p> <ul style="list-style-type: none"><li>• Select <b>Standard document</b> to scan most documents. Select if you want the <b>Prompt to scan additional pages</b>.</li><li>• Select <b>Book</b> to scan bound book pages.</li><li>• Select <b>2-sided ID Scan</b> to scan both sides of a card, such as an identification card or business card. Select if you want the <b>Prompt to scan both sides</b>.</li></ul>
<b>Reduce/Enlarge</b>	<p>Use the <b>Reduce/Enlarge</b> feature to scale the size of the document up or down.</p> <p>Select one of the predefined percentages, or touch the <b>Scaling</b> field, and enter a percentage between 25 and 400 for the flatbed scanner and between 25 and 200 for the document feeder. You can also select these options:</p> <ul style="list-style-type: none"><li>• <b>Auto</b>: The printer automatically scales the image to fit the paper size in the tray.</li><li>• <b>Auto Include Margins</b>: The printer reduces the image slightly to fit the entire scanned image within the printable area on the page.</li></ul> <p><b>NOTE:</b> To reduce the image, select a scaling percentage that is less than 100. To enlarge the image, select a scaling percentage that is greater than 100.</p>
<b>Image Shift</b>	<p>Choose <b>Image Shift</b> options if you want to offset where the copied image prints on the page.</p> <ul style="list-style-type: none"><li>• Select <b>Use Inches</b> to use inches instead of millimeters.</li><li>• For the <b>Front Side</b>: Enter the values for <b>Horizontal</b> and <b>Vertical</b> offset.</li><li>• For the <b>Back Side</b> (2-sided output): Enter the values for <b>Horizontal</b> and <b>Vertical</b> offset.</li></ul>

**Table 6-12 Copy Settings (continued)**

Option	Description
<b>Original Size</b>	<ul style="list-style-type: none"><li>• <b>Automatically detect</b></li><li>• <b>Letter (8.5x11)</b></li><li>• <b>Mixed Letter/Legal</b></li><li>• <b>Legal (8.5x14)</b></li><li>• <b>Executive (7.25x10.5)</b></li><li>• <b>Statement (5.5x8.5)</b></li><li>• <b>Oficio (8.5x13)</b></li><li>• <b>A4 (210x297 mm)</b></li><li>• <b>A5 (148x210 mm)</b></li><li>• <b>B5 (182x257 mm)</b></li><li>• <b>16k (195x270 mm)</b></li><li>• <b>DPostcard JIS (148x200 mm)</b></li><li>• <b>Oficio (216x340 mm)</b></li></ul> <p>Specify the size of the original document:</p>
<b>Paper Selection</b>	<p>Select which tray to use when printing or making copies:</p> <ul style="list-style-type: none"><li>• <b>Manually feed:</b> The <b>Paper Selection</b> option is automatically set to <b>Tray 1: Any Type, Any Size</b></li><li>• <b>Automatically Detect:</b> Automatically matches the paper size of the original to a paper size in one of the trays</li><li>• <b>Tray 1: Any Type, Any Size</b></li><li>• <b>Tray 2: Plain, Letter (8.5x11)</b></li></ul>
<b>Booklet</b>	<p>Select to have <b>Booklet Format</b> off or on. If on, select either a <b>1-sided</b> or <b>2-sided</b> booklets and whether to enable <b>Borders on each page</b>.</p>

**Table 6-12 Copy Settings (continued)**

Option	Description
<b>Content Orientation</b>	<p>For some features to work correctly, specify the way the content of the original document is placed on the page.</p> <p>If you are making two-sided copies, select a 2-sided format option.</p> <p><b>Orientation:</b></p> <ul style="list-style-type: none"><li>• <b>Portrait:</b> The short edge of the page is along the top.</li><li>• <b>Landscape:</b> The long edge of the page is along the top.</li></ul> <p><b>2-Sided Format:</b></p> <ul style="list-style-type: none"><li>• <b>Book-style:</b> The back side of the original is printed right-side-up, and the back side of the copy is printed the same way. Use this option for originals and copies that are bound along the left edge.</li><li>• <b>Flip-style:</b> The back side of the original is printed upside-down, and the back side of the copy is printed the same way. Use this option for originals and copies that are to be bound along the top edge.</li><li>• <b>Book-style original; Flip-style copy:</b> The back side of the original is printed right-side-up, but the back side of the copy is printed upside-down. Use this option when the original is bound along the left edge, but the copies need to be bound along the top edge.</li><li>• <b>Flip-style original; Book-style copy:</b> The back side of the original is printed upside-down, but the back side of the copy is printed right-side-up. Use this option when the original is bound along the top edge, but the copies need to be bound along the left edge.</li></ul>
<b>Pages per Sheet</b>	<p>Select how many pages to print on one sheet and the page order: to copy to one, two, or four <b>Pages per Sheet</b> and select whether to <b>Add page borders</b>.</p> <p><b>Pages per Sheet</b></p> <ul style="list-style-type: none"><li>• <b>One (1)</b></li><li>• <b>Two (2)</b></li><li>• <b>Four (4)</b></li></ul> <p><b>Page Order</b></p> <ul style="list-style-type: none"><li>• <b>Right, then down:</b> Prints the pages in rows</li><li>• <b>Down, then right:</b> Prints the pages in columns</li></ul> <p>Click the <b>Add page borders</b> check box to add borders on the pages.</p>
<b>Image Adjustment</b>	<p>Use the settings to improve the overall quality of the copy. For example, adjust the <b>Darkness</b> and <b>Sharpness</b>, and use the <b>Background Cleanup</b> setting to remove faint images from the background or to remove a light background color.</p> <ul style="list-style-type: none"><li>• <b>Darkness:</b> Adjust to increase or decrease the amount of white and black in the colors</li><li>• <b>Contrast:</b> Adjust to increase or decrease the difference between the lightest and darkest color on the page</li><li>• <b>Background Cleanup:</b> Adjust if you are having trouble copying a faint image</li><li>• <b>Sharpness:</b> Adjust to sharpen or soften the image. For example, increasing the sharpness could make text look clearer, but decreasing it could make photographs look smoother.</li></ul>

**Table 6-12 Copy Settings (continued)**

Option	Description
<b>Optimize Text/ Picture</b>	<p>Select an option for how to handle output of a particular type content being printed:</p> <ul style="list-style-type: none"><li>• <b>Manually adjust:</b> Manually optimize the setting for each document</li><li>• <b>Text:</b> Use for documents that contain mostly text</li><li>• <b>Printed picture:</b> Use for line drawings and preprinted images, such as magazine clippings or pages from books</li></ul> <p><b>NOTE:</b> If bands of irregular intensity print on the copies, try selecting <b>Printed picture</b> to improve the quality.</p> <ul style="list-style-type: none"><li>• <b>Photograph:</b> Use for photographic prints</li></ul> <p>Select an <b>Optimize For</b> value for the manual adjustment.</p>
<b>Edge-to-Edge</b>	<p>Use to avoid shadows that can display along the edges of copies when the original document is printed close to the edges.</p> <p>Combine this feature with the <b>Reduce/Enlarge</b> feature to ensure that the entire page is printed on the copies.</p> <p>When the <b>Edge-to-Edge</b> feature is turned on, the printer minimizes margins and prints as close to the edge of the paper as possible.</p>
<b>Erase Edges</b>	<p>Use the <b>Erase Edges</b> options if you want to remove content or lines along the edges of the page.</p> <p>Select <b>Use Inches</b> to use inches instead of millimeters.</p> <p>Define the erase options for <b>Front Side</b> and <b>Back Side</b>, including the width to erase on each edge.</p>
<b>Collate</b>	<p>For printers that support print-job finishing, each set of copied pages are assembled in the same order as the original document.</p> <p><b>NOTE:</b> If the printer has a stapler installed, select a staple option. To not staple the copies, select <b>None</b>.</p> <p>Select a <b>Collate</b> option.</p> <ul style="list-style-type: none"><li>• <b>Collate on (Sets in page order):</b> If making more than one copy, select to assemble pages in the correct order for each set of copies.</li><li>• <b>Collate off (Pages grouped):</b> Select to group the same pages together. For example, if making five copies of an original document that has two pages, all five first pages are grouped together and all five second pages are grouped together.</li></ul>
<b>Image Preview</b>	<p>Select an <b>Image Preview</b> option:</p> <ul style="list-style-type: none"><li>• <b>Disable preview</b></li><li>• <b>Make optional</b></li><li>• <b>Require preview</b></li></ul>

3. To complete the set up, review the selected settings, and then click **Apply**.


## Step two: Complete the setup

On the **Copy Settings** page, review the selected settings, and then click **Apply** to complete the setup.

## Configure scanning and digital sending

Use the following information to set up scan/digital send features using the EWS.

---

 **NOTE:** All features might not be available on every device.

---

## Set up Scan to Email

Learn how to set up the Scan to Email feature.

---

 **NOTE:** The steps vary according to the type of control panel.

---

**Table 6-13** Control panels

Firmware Version	Control panels
FutureSmart 3	
FutureSmart 4	

---

### FutureSmart 3

Use the following steps for FutureSmart 3.

#### Introduction

The printer has a feature that enables it to scan a document and send it to one or more email addresses. To use this scan feature, the printer must be connected to a network; however, the feature is not available until it has been configured.

There are two methods for configuring Scan to Email, the **Scan to Email Setup Wizard** for basic and **Email Setup** for advanced. Use the following information to set up the Scan to Email feature.

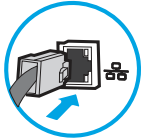
 [View a video of how to set up Scan to Email for FutureSmart 3 printers](#)

If you are unable to view the video above, or to view the video in a different size, watch the video on YouTube:

[Scan to Email Setup for FutureSmart 3 \(YouTube\)](#)

#### Before you begin


To set up the Scan to Email feature, the printer must have an active network connection.



Administrators need the following information before beginning the configuration process.

- Administrative access to the printer
- DNS suffix (e.g., companyname.com)
- SMTP server (e.g., smtp.mycompany.com)


---

 **NOTE:** If you do not know the SMTP server name, SMTP port number, or authentication information, contact the email/Internet service provider or system administrator for the information. SMTP server names and port names are typically found by doing an Internet search. For example, use terms like "Gmail smtp server name" or "Yahoo smtp server name" to search.

---

- SMTP server authentication requirements for outgoing email messages, including the user name and password used for authentication, if applicable.

---

 **NOTE:** Consult your email service provider's documentation for information on digital sending limits for your email account. Some providers may temporarily lock your account if you exceed your sending limit.

---

### Step one: Configure the Network Identification settings

Use the following steps to configure the Network Identification settings.

---

 **NOTE:** Configuring email setup on the **Networking** tab is an advanced process and might require the assistance of a system administrator.

---

1. Using the EWS top navigation tabs, click **Networking**.

---


 **NOTE:** For configuring the network settings for use with Office 365, [Step four: Set up Send to Email to use Office 365 Outlook \(optional\) on page 126](#).

---

2. In the left navigation pane, click **TCP/IP Settings**. A username/password might be required to access the **Network Identification** tab of the EWS.
3. On the **TCP/IP Settings** dialog, click the **Network Identification** tab.

4. If DNS is required on the network, in the **TCP/IP Domain Suffix** area, verify that the DNS suffix for the email client being used is listed. DNS suffixes have this format: *companyname.com*, *gmail.com*, etc.



 **NOTE:** If the Domain Name suffix is not set up, use the IP address.

5. Click **Apply**.
6. Click **OK**.

### Step two: Configure the Send to E-mail feature

The two options for configuring Send to Email are the **E-mail Setup Wizard** for basic configuration and **E-mail Setup** for advanced configuration. Use the following options to configure the Send to E-mail feature:

#### Method one: Basic configuration using the E-mail Setup Wizard

This option opens the **E-mail Setup Wizard** in the HP Embedded Web Server (EWS) for basic configuration.

1. Using the EWS top navigation tabs, click **Scan/Digital Send**.
2. In the **E-mail and Save to Network Folder Quick Setup Wizards** area, click the **E-mail Setup Wizard** link.



3. On the **E-mail Setup Wizard** dialog, click **Continue** to proceed with the configuration.

4. On the **Configure E-mail Servers (SMTP)** dialog, select one of the following options and complete the steps:

**Option one: Use a server already in use by E-mail**

- a. Select **Use a server already in use by E-mail**, and then click **Next**.

**Option two: Search network for outgoing e-mail server**

This option finds outgoing SMTP servers inside your firewall only.

- a. Select **Search network for outgoing e-mail server**, and then click **Next**.
- b. Select the appropriate server from the **Configure E-mail Server (SMTP)** list, and then click **Next**.
- c. Select the option that describes the server's authentication requirements:
  - **Server does not require authentication:** Select **Server does not require authentication**, and then click **Next**.
  - OR–
  - **Server requires authentication:** From the drop-down list, select an authentication option:
    - **Use credentials of user to connect after Sign In at the control panel:** Select **Use credentials of user to connect after Sign In at the control panel**, and then click **Next**.
    - OR–
    - **Always use these credentials:** Select **Always use these credentials**, enter the **User name** and **Password**, and then click **Next**.

**Option three: Add SMTP server**

- a. Select **Add SMTP server**
- b. Enter the **Server Name** and **Port Number**, and then click **Next**.



**NOTE:** In most cases, the default port number does not need to be changed.



**NOTE:** If you are using a hosted SMTP service such as Gmail, verify the SMTP address, port number, and SSL settings from the service provider's website or other sources. Typically, for Gmail, the SMTP address is smtp.gmail.com, port number 465, and the SSL should be enabled.

Please refer to online sources to confirm these server settings are current and valid at the time of configuration.

---

- c. Select the appropriate server authentication option:
  - **Server does not require authentication:** Select **Server does not require authentication**, and then click **Next**.
  - OR–
  - **Server requires authentication:** Select an option from the **Server requires authentication** drop-down list:

- **Use credentials of user to connect after Sign In at the control panel:** Select **Use credentials of user to connect after Sign In at the control panel**, and then click **Next**.
- OR-
- **Always use these credentials:** Select **Always use these credentials**, enter the **User name** and **Password**, and then click **Next**.
5. On the **Configure E-mail Settings** dialog, enter the following information about the sender's email address, and then click **Next**.



**NOTE:** When setting up the **From**, **Subject**, and **Message** fields, if the **User editable** check box is unchecked, users will not be able to edit those fields at the printer control panel when sending an email.

**Table 6-14** Email settings

Option	Description
<b>From</b> (Required)	Select one of the following options from the <b>From</b> drop-down list: <ul style="list-style-type: none"> <li>● <b>User's address (sign-in required)</b></li> <li>● <b>Default From:</b> Enter a default email address and display name in the <b>Default From E-mail Address</b> and <b>Default Display Name</b> fields</li> </ul> <p><b>NOTE:</b> Create an e-mail account for the printer, and use this address for the default e-mail address.</p> <p><b>NOTE:</b> Configure the e-mail feature so that users must sign in before using it. This prevents users from sending an e-mail from an address that is not their own.</p>
<b>Subject</b> (Optional)	Provide a default subject line for the e-mail messages.
<b>Message</b> (Optional)	Create a custom message.  To use this message for all e-mails sent from the printer, clear the <b>User editable</b> check box for <b>Message</b> .

6. In the **Configure File Scan Settings** area, set the default scanning preferences, and then click **Next**.

**Table 6-15** Scan settings

Option	Description
<b>Default File Type</b>	Select the default file type that the for the scanned document: <ul style="list-style-type: none"><li>• PDF</li><li>• JPEG</li><li>• TIFF</li><li>• MTIFF</li><li>• XPS</li><li>• PDF/A</li><li>• Text (OCR)</li><li>• Unicode Text (OCR)</li><li>• RTF (OCR)</li><li>• Searchable PDF (OCR)</li><li>• Searchable PDF/A (OCR)</li><li>• HTML (OCR)</li><li>• CSV (OCR)</li></ul>
<b>Default Color Preferences</b>	Select the default color setting for the scanned document: <ul style="list-style-type: none"><li>• Color</li><li>• Black</li><li>• Black/Gray</li><li>• Automatically detect</li></ul>
<b>Default Output Quality</b>	Select the default output quality for the scanned document: <ul style="list-style-type: none"><li>• Low (small file)</li><li>• Medium</li><li>• High (large file)</li></ul>
<b>Default Resolution</b>	Select the default scan resolution for the scanned document: <ul style="list-style-type: none"><li>• 75 dpi</li><li>• 150 dpi</li><li>• 200 dpi</li><li>• 300 dpi</li><li>• 400 dpi</li><li>• 600 dpi</li></ul>

7. Review the **Summary** area, and then click **Finish** to complete the setup.

## Method two: Advanced configuration using the E-mail Setup

Use the following steps for advanced configuration using the **E-mail Setup** dialog.

1. Using the EWS top navigation tabs, click **Scan/Digital Send**, and then click **E-mail Setup** in the left navigation pane.
2. On the **E-mail Setup** dialog, select the **Enable Send to E-mail** check box. If this check box is not selected, the feature is unavailable at the printer control panel.
3. In the **Outgoing E-mail Servers (SMTP)** area, complete the steps for one of the following options:
  - Select an existing server from the **Outgoing E-mail Servers (SMTP)** table.

**-OR-**

Click **Add** to start the SMTP wizard.

- a. In the SMTP wizard, select one of the following options:
  - **Option one: I know my SMTP server address or host name:** Enter the address of an SMTP server, and then click **Next**
  - **Option two:** If you do not know the address of the SMTP server, select **Search network for outgoing e-mail server**, and then click **Next**. Select the server, and then click **Next**.



---

**NOTE:** If an SMTP server was already created for another printer function, the **Use a server already in use by another function** option displays. Select this option, and then configure it to be used for the email function.

---

- b. On the **Set the basic information necessary to connect to the server** dialog, set the options to use, and then click **Next**.



---

**NOTE:** Some servers have problems sending or receiving emails that are larger than 5 megabytes (MB). These problems can be prevented by entering a number in **Split e-mails if larger than (MB)**.

---



---

**NOTE:** In most cases, the default port number does not need to be changed. However, when using the Enable SMTP SSL Protocol option, port 587 must be used.

---



---

**NOTE:** If you are using Google™ Gmail for email service, select the **Enable SMTP SSL Protocol** check box. Typically, for gmail, the SMTP address is smtp.gmail.com, port number 465, and the SSL should be enabled.

---


Please refer to online sources to confirm these server settings are current and valid at the time of configuration.

---

- c. On the **Server Authentication Requirements** dialog, select the option that describes the server's authentication requirements:
  - **Server does not require authentication**, and then click **Next**.
  - **Server requires authentication**
    - From the drop-down box, select **Use credentials of user to connect after Sign In at the control panel**, and then click **Next**.

- From the drop-down box, select **Always use these credentials**, enter the **Username** and **Password**, and then click **Next**.


---

 **NOTE:** If using a signed-in user's credentials, set email to require sign in by the user on the printer control panel. Deny device guest access to email by clearing the check box for email in the **Device Guest** column in the **Sign in and Permission Policies** area on the **Access Control** dialog of the **Security** tab. The icon in the check box changes from a check mark to a lock.

---

- d. On the **Server Usage** dialog, choose the printer functions that will send email through this SMTP server, and then click the **Next** button.

---


 **NOTE:** If the server requires authentication, a user name and password for sending automatic alerts and reports from the printer will be required.

---

- e. On the **Summary and Test** dialog, enter a valid email address in the **Send a test e-mail to:** field, and then click **Test**.
- f. Verify that all of the settings are correct, and then click **Finish** to complete the outgoing email server set up.

4. In the **Quick Sets** area, select one of the following options:

---

 **NOTE:** Quick Sets are optional short-cut jobs that can be accessed on the main Home screen or within the Quick Sets application at the product.

---

- Select an existing Quick Set under **Quick Sets Application** in the table.

-OR-

- Click **Add** to start the **Quick Set Wizard**. Complete the following information:
  - **Quick Set Title:** Enter a title for the new Quick Set.
  - **Button Location:** From the **Button Location** drop-down list, select either **Home Screen** or **Quick Sets Application**.
  - **Quick Set Description:** Enter a description of the Quick Set.
  - **Quick Set Start Option:** To set how the Quick Set starts, click either **Enter application, and then user presses Start** or **Start instantly upon selection**.

5. In the **Address and Message Field Control** area, enter a **Default From:** setting and any of the other optional settings.

**Table 6-16** Address and Message Field Control settings

Feature	Description
<b>Address Field Restrictions</b>	<p>Specify whether users must select an email address from an address book or whether users are allowed to enter in an email address manually.</p> <p><b>CAUTION:</b> If <b>Users must select from address book</b> is selected, and any of the address fields are also set as <b>User editable</b>, changes to those editable fields also change the corresponding values in the address book.</p> <p>To prevent users from changing contacts in the Address Book at the printer control panel, go to the <b>Access Control</b> page on the <b>Security</b> tab, and deny <b>Device Guest</b> access to address book modifications.</p>

**Table 6-16 Address and Message Field Control settings (continued)**

Feature	Description
<b>Allow invalid e-mail address formats</b>	Select to allow an invalid email address format.
<b>User editable</b>	To use the <b>Default From</b> address and <b>Default Display Name</b> for all emails sent from this printer (unless a user is signed in), do not select the <b>User editable</b> check box.  When setting up the address fields, if the <b>User editable</b> check box is unchecked, users will not be able to edit those fields at the printer control panel when sending an email. For send-to-me functionality, clear the <b>User editable</b> check boxes for all of the address fields, including the <b>From:</b> , <b>To:</b> , <b>CC:</b> , and <b>BCC:</b> fields, and then set that user's send email <b>From:</b> their own email address and <b>To:</b> their own email address.
<b>Default From: and Default Display Name:</b>	Provide an email address and name to use for the <b>From:</b> address for the email message.  <b>NOTE:</b> Create an email account for the printer, and use this address for the default email address.  <b>NOTE:</b> Configure the email feature so that users must sign in before using it. This prevents users from sending an email from an address that is not their own.
<b>To:</b>	Provide a To (recipient) email address for emails.
<b>CC:</b>	Provide a CC email address for emails.
<b>BCC:</b>	Provide a BCC email address for emails.
<b>Subject:</b>	Provide a default subject line for the email messages.
<b>Message:</b>	Create a custom message. To use this message for all emails sent from the printer, clear or do not select the <b>User editable</b> check box for <b>Message:</b> .

6. In the **Signing and Encryption** area, set the signing and encryption preferences.

**Table 6-17 Signing and Encryption settings**

Feature	Description
<b>Signing</b>	Select whether to sign the email with a security certificate.  Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>Hashing Algorithm</b>	Select the algorithm to use for signing the certificate.
<b>Encryption</b>	Select whether to encrypt the email.  Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>Encryption Algorithm</b>	Select the algorithm to use for encrypting the email.
<b>Attribute for Recipient Public Key</b>	Enter which attribute to use to retrieve the recipient's public key certificate from LDAP.
<b>Use the recipient public key certificate to verify the recipient</b>	Select this setting to use the recipient's public key certificate to verify the recipient.

7. In the **Notification Settings** area, select when users will receive notifications about sent emails. The default setting is using the signed in user's email address. If the recipient email address is blank, no notification is sent.

8. In the **Scan Settings** area, set the default scanning preferences.

**Table 6-18** Scan settings

Feature	Description
<b>Original Size</b>	Select the page size of the original document.
<b>Original Sides</b>	Select whether the original document is single-sided or double-sided.
<b>Optimize Text/Picture</b>	Select to optimize for the output of a particular type of content, or select <b>Manually adjust</b> .
<b>Optimize For</b>	This setting is only available when <b>Optimize Text/Picture</b> is set to <b>Manually adjust</b> . Select a manual-adjust value.
<b>Content Orientation</b>	Select the way the content of the original document is placed on the page: <b>Portrait</b> or <b>Landscape</b> , or select <b>Automatically detect</b> .
<b>2-Sided Format</b>	This setting is not available when <b>Content Orientation</b> is set to <b>Automatically detect</b> . Select to describe the binding of the page to specify if the back side of the page is upside down or right side up.
<b>Background Cleanup</b>	Select a value to remove faint images from the background or to remove a light background color.
<b>Darkness</b>	Select a value to adjust the darkness of the file.
<b>Contrast</b>	Select a value to adjust the contrast of the file.
<b>Sharpness</b>	Select a value to adjust the sharpness of the file.
<b>Image Preview</b>	Select whether to require or make optional a displayed preview of the job or to disable a preview.
<b>Cropping Options</b>	Select whether or not to allow a job to be cropped and the type of cropping option.
<b>Job Build</b>	Select this setting to combine several sets of original documents into one email attachment. Also, use this setting to scan an original document that has more pages than the document feeder can accommodate at one time.
<b>Automatic Tone</b>	Select this setting to set to automatic the <b>Darkness</b> , <b>Contrast</b> , and <b>Background cleanup</b> settings, which then makes these settings unavailable on this page.
<b>Multi-feed Detection</b>	Select this setting to enable detection of multi-feed jobs.
<b>Erase Edges</b>	Select this setting to specify the width of edge margins to be erased, in either inches or millimeters, for the front side and back side of a job.

9. In the **File Settings** area, set the default file settings preferences.

**Table 6-19** File settings

Feature	Description
<b>File Name Prefix</b>	Set the default file name prefix used for files saved to a network folder.
<b>Default File Name</b>	Default file name for the file to be saved.  Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>File Name Suffix</b>	Set the default file name suffix used for files saved to a network folder.  Duplicate filename suffix default [filename]_YYYYMMDDT
<b>File Number Format</b>	Select a file name format for when the job is divided into multiple files.

**Table 6-19 File settings (continued)**

Feature	Description
<b>Default File Type</b>	Select the file format for the saved file.  Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>File Name Preview</b>	Enter a file name, and then click the <b>Update Preview</b> button.
<b>Default Color Preference</b>	Select whether the file is in black & white or in color.
<b>Default Output Quality</b>	Select the quality for the file. Higher-quality images require a larger file size than lower-quality images, and they take more time to send.
<b>Default Resolution</b>	Set the resolution for the file. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller.
<b>Compression</b>	Specify if the file uses Normal or High compression when saving a scanned document as a PDF or XPS file. If compression is set to High, the scanned file is smaller, but the scanning process might take longer than Normal compression.
<b>Black TIFF Compression</b>	Select the black TIFF compression algorithm to be used to compress the generated TIFF file.
<b>Color/Grayscale TIFF Compression</b>	Select the color/grayscale TIFF compression algorithm to be used to compress the generated TIFF file.
<b>PDF encryption</b>	If the file type is PDF, then this option encrypts the output PDF file. A password must be specified as part of the encryption. The same password must be used to open the file. The user will be prompted to enter a password prior to scanning their job if one has not been set prior to pressing start.
<b>Disable OCR file types</b>	Select this setting to prevent OCR file types from being available from the product control panel.
<b>Enable Blank Page Suppression</b>	If the <b>Enable Blank Page Suppression</b> option is enabled, blank pages will be ignored.

10. Review the selected options to verify that they are accurate, and then click **Apply** to complete the setup.

### Step three: Configure the Quick Sets (optional)

Quick Sets are optional short-cut jobs that can be accessed on the main Home screen or within the Quick Sets application at the printer. Use the following procedure to configure the Quick Sets.



[View a video of how to create Quick Sets for FutureSmart 3 printers](#)

If you are unable to view the video above, or to view the video in a different size, watch the video on YouTube:

[Create Quick Sets for FutureSmart 3 \(YouTube\)](#)

1. In the **Quick Sets** area, select one of the following options:
  - Select an existing Quick Set under Quick Sets Application in the table.
  - OR-
  - Click **Add** to start the Quick Set Wizard.

2. If you selected **Add**, the **Quick Sets Wizard** opens. Complete the following information:
  - **Quick Set Title:** Enter a title for the new Quick Set.
  - **Button Location:** From the Button Location drop-down list, select either **Home Screen** or **Quick Sets Application**.
  - **Quick Set Description:** Enter a description of the Quick Set.
  - **Quick Set Start Option:** To set how the Quick Set starts, click either **Enter application, and then user presses Start** or **Start instantly upon selection**.

#### Step four: Set up Send to E-mail to use Office 365 Outlook (optional)

Complete the following to enable the printer to send an email with an Office 365 Outlook account from the control panel.

#### Introduction

Microsoft Office 365 Outlook is a cloud-based email system provided by Microsoft which uses Microsoft's Simple Mail Transfer Protocol (SMTP) server to send or receive emails.



**NOTE:** You must have an email address account with Office 365 Outlook to configure the settings in the EWS.

#### Configure the outgoing e-mail server (SMTP) to send an e-mail from an Office 365 Outlook account

Use the following steps to configure the outgoing email server.

1. Using the EWS top navigation tabs, click **Networking**.
2. In the left navigation pane, click **TCP/IP Settings**.
3. In the **TCP/IP Settings** area, click the **Network Identification** tab.
4. If DNS is required on the network, in the **TCP/IP Domain Suffix** area, verify that the DNS suffix for the email client being used is listed. DNS suffixes have this format: *companyname.com*, Gmail.com, etc.



**NOTE:** If the Domain Name suffix is not set up, use the IP address.

5. Click **Apply**.
6. Click the **Scan/Digital Send** tab.

7. On the left navigation pane, click **E-mail Setup**.
8. On the **E-mail Setup** page, select the **Enable Send to E-mail** check box. If this check box is not available, the feature is unavailable at the printer control panel.



9. In the **Outgoing E-mail Servers (SMTP)** area, click **Add** to start the SMTP wizard.
10. In the **I know my SMTP server address or host name** field, type [smtp.onoffice.com](http://smtp.onoffice.com), and then click **Next**.
11. On the **Set the basic information necessary to connect to the server** dialog, in the **Port Number** field, type **587**.



**NOTE:** Some servers have problems sending or receiving e-mails that are larger than 5 megabytes (MB). These problems can be prevented by entering a number in **Split emails if larger than (MB)**.

12. Select the **Enable SMTP SSL Protocol** check box, and then click **Next**.
13. On the **Server Authentication Requirements** dialog, complete the following information:
  - a. Select **Server requires authentication**.
  - b. From the drop-down list, select **Always use these credentials**
  - c. In the **Username** field, type the Office 365 Outlook email address.
  - d. In the **Password** field, type the Office 365 Outlook account password, and then click **Next**.
14. On the **Server Usage** dialog, choose the printer functions that will send email through this SMTP server, and then click the **Next** button.
15. On the **Summary and Test** dialog, enter a valid email address in the **Send a test email to:** field, and then click **Test**.
16. Verify that all of the settings are correct, and then click **Finish** to complete the outgoing email server set up.

For more information, go to [Microsoft's Support page](#).

## FutureSmart 4

Use the following steps for FutureSmart 4.

## Introduction

The printer has a feature that enables it to scan a document and send it to one or more email addresses. To use this scan feature, the printer must be connected to a network; however, the feature is not available until it has been configured.

There are two methods for configuring Scan to Email, the **Scan to Email Setup Wizard** for basic and **Email Setup** for advanced. Use the following information to set up the Scan to Email feature.

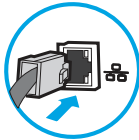
 [View a video of how to set up the Scan to Email feature for FutureSmart 4 printers](#)

If you are unable to view the video above, or to view the video in a different size, watch the video on YouTube:

[Scan to Email Setup for FutureSmart 4 \(YouTube\)](#)

## Before you begin


To set up the Scan to Email feature, the printer must have an active network connection.



Administrators need the following information before beginning the configuration process.

- Administrative access to the printer
- DNS suffix (e.g., companyname.com)
- SMTP server (e.g., smtp.mycompany.com)


---

 **NOTE:** If you do not know the SMTP server name, SMTP port number, or authentication information, contact the email/Internet service provider or system administrator for the information. SMTP server names and port names are typically found by doing an Internet search. For example, use terms like "Gmail smtp server name" or "Yahoo smtp server name" to search.

---

- SMTP server authentication requirements for outgoing email messages, including the user name and password used for authentication, if applicable.

---

 **NOTE:** Consult your email service provider's documentation for information on digital sending limits for your email account. Some providers may temporarily lock your account if you exceed your sending limit.

---

## Step one: Configure the Network Identification settings

Use the following steps to configure the Network Identification settings.


---

 **NOTE:** Configuring email setup on the **Networking** tab is an advanced process and might require the assistance of a system administrator.

---

1. Using the EWS top navigation tabs, click **Networking**.

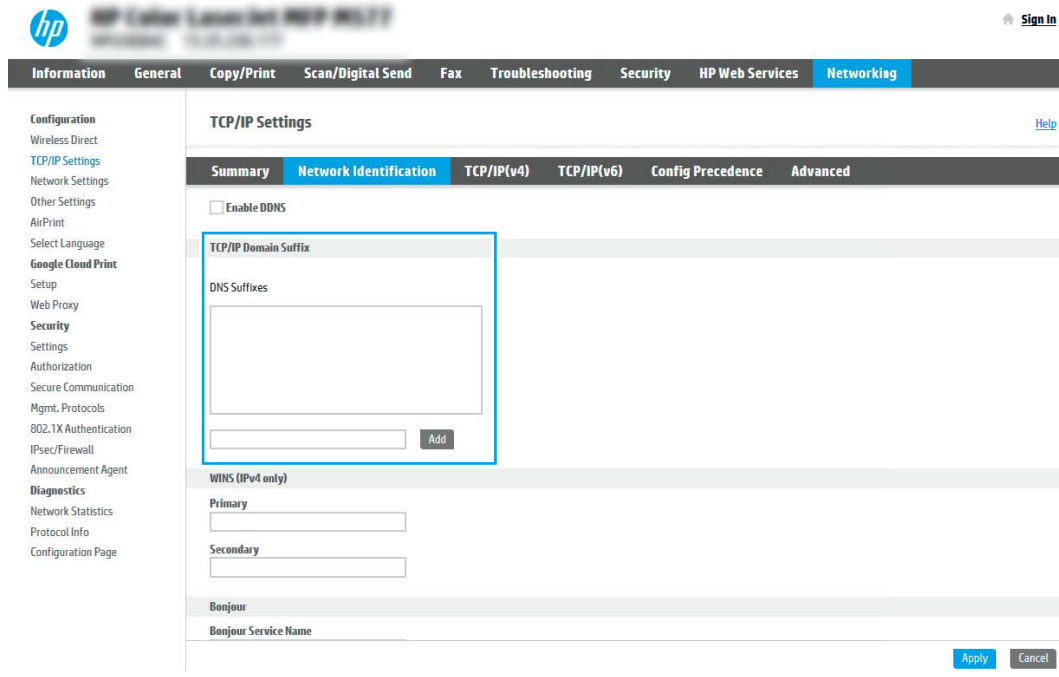
---

 **NOTE:** For configuring the network settings for use with Office 365, see "Step five: Set up Scan to Email to use Office 365 Outlook (optional)."

---

2. In the left navigation pane, click **TCP/IP Settings**. A username/password might be required to access the **Network Identification** tab of the EWS.
3. On the **TCP/IP Settings** dialog, click the **Network Identification** tab.
4. If DNS is required on the network, in the **TCP/IP Domain Suffix** area, verify that the DNS suffix for the email client being used is listed. DNS suffixes have this format: *companyname.com*, gmail.com, etc.

**Figure 6-14 TCP/IP Domain Suffix settings**



**NOTE:** If the Domain Name suffix is not set up, use the IP address.

5. Click **Apply**.
6. Click **OK**.

### Step two: Configure the Scan to Email feature

The two options for configuring Scan to Email are the **Email Setup Wizard** for basic configuration and **Email Setup** for advanced configuration. Use the following options to configure the Scan to Email feature:

#### Method one: Basic configuration using the Email Setup Wizard

Perform basic configuration using the Email Setup Wizard.

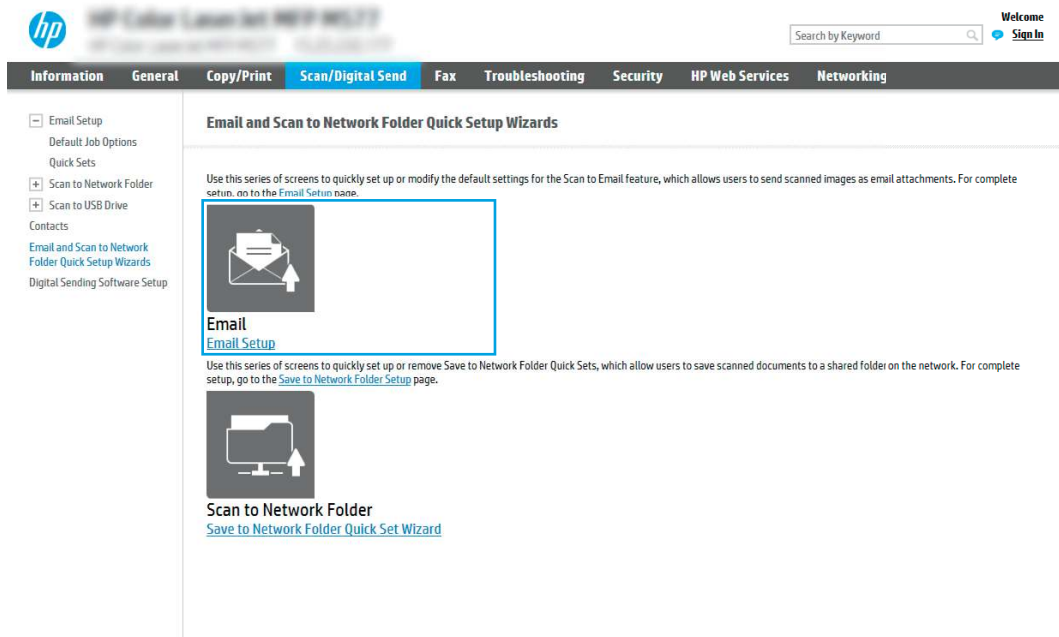
This option opens the **Email Setup Wizard** in the HP Embedded Web Server (EWS) for basic configuration.

1. Using the EWS top navigation tabs, click **Scan/Digital Send**.
2. In the left navigation pane, click **Email and Scan to Network Folder Quick Setup Wizards**.

3. In the **Email and Scan to Network Folder Quick Setup Wizards** dialog, click the **Email Setup** link.



**NOTE:** If a message displays indicating that the Scan to Email feature is disabled, click **Continue** to proceed with the configuration and enable the Scan to Email feature upon completion.




4. On the **Configure Email Servers (SMTP)** dialog, select one of the following options and complete the steps:

- Option one: Use a server already in use by Email.  
Select **Use a server already in use by Email**, and then click **Next**.
- Option two: Search the network for the outgoing email server.  
This option finds outgoing SMTP servers inside your firewall only.
  - a. Select **Search network for outgoing email server**, and then click **Next**.
  - b. Select the appropriate server from the **Configure Email Server (SMTP)** list, and then click **Next**.
  - c. Select the option that describes the server's authentication requirements:
    - Server does not require authentication: Select **Server does not require authentication**, and then click **Next**.
    - OR-
    - Server requires authentication: From the drop-down list, select an authentication option:
      - Select **Use credentials of user to connect after Sign In at the control panel**, and then click **Next**.
    - OR-

- Select **Always use these credentials**, enter the **User name** and **Password**, and then click **Next**.
- Option three: Add the SMTP server.
  - a. Select **Add SMTP server**.
  - b. Enter the **Server Name** and **Port Number**, and then click **Next**.

---

 **NOTE:** In most cases, the default port number does not need to be changed.


 **NOTE:** If you are using a hosted SMTP service such as Gmail, verify the SMTP address, port number, and SSL settings from the service provider's website or other sources. Typically, for Gmail, the SMTP address is smtp.gmail.com, port number 465, and the SSL should be enabled.

Please refer to online sources to confirm these server settings are current and valid at the time of configuration.

---

- c. Select the appropriate server authentication option:
  - Server does not require authentication: Select **Server does not require authentication**, and then click **Next**.
  - OR-
  - Server requires authentication: Select an option from the **Server requires authentication** drop-down list:
    - Select **Use credentials of user to connect after Sign In at the control panel**, and then click **Next**.
    - OR-
    - Select **Always use these credentials**, enter the **User name** and **Password**, and then click **Next**.

5. On the **Configure Email Settings** dialog, enter the following information about the sender's email address, and then click **Next**.

 **NOTE:** When setting up the **From**, **Subject**, and **Message** fields, if the **User editable** check box is unchecked, users will not be able to edit those fields at the printer control panel when sending an email.

---

**Table 6-20 Send email settings**

Option	Description
<b>From</b> (Required)	Select one of the following options from the <b>From</b> drop-down list: <ul style="list-style-type: none"> <li>● <b>User's address (sign-in required)</b></li> <li>● <b>Default From:</b> Enter a default email address and display name in the <b>Default From Email Address</b> and <b>Default Display Name</b> fields</li> </ul> <p><b>NOTE:</b> Create an email account for the printer, and use this address for the default email address.</p> <p><b>NOTE:</b> Configure the email feature so that users must sign in before using it. This prevents users from sending an email from an address that is not their own.</p>

---

**Table 6-20 Send email settings (continued)**

Option	Description
<b>Subject</b> (Optional)	Provide a default subject line for the email messages.
<b>Message</b> (Optional)	Create a custom message.  To use this message for all emails sent from the printer, clear the <b>User editable</b> check box for <b>Message</b> .

6. In the **Configure File Scan Settings** area, set the default scanning preferences, and then click **Next**.

**Table 6-21 Scan settings**

Option	Description
<b>File Type</b>	Select the default file type for the scanned document: <ul style="list-style-type: none"><li>• PDF</li><li>• JPEG</li><li>• TIFF</li><li>• MTIFF</li><li>• XPS</li><li>• PDF/A</li></ul> <p>HP LaserJet Enterprise Flow MFP printers or MFP printers that are connected to a digital send software (DSS) server also support the following OCR file types:</p> <ul style="list-style-type: none"><li>• Text (OCR)</li><li>• Unicode Text (OCR)</li><li>• RTF (OCR)</li><li>• Searchable PDF (OCR)</li><li>• Searchable PDF/A (OCR)</li><li>• HTML (OCR)</li><li>• CSV (OCR)</li></ul>
<b>Color/Black</b>	Select the default color setting for the scanned document: <ul style="list-style-type: none"><li>• Color</li><li>• Black</li><li>• Black/Gray</li><li>• Automatically detect</li></ul>
<b>Quality and File Size</b>	Select the default output quality for the scanned document: <ul style="list-style-type: none"><li>• Low (small file)</li><li>• Medium</li><li>• High (large file)</li></ul>

**Table 6-21 Scan settings (continued)**

Option	Description
<b>Resolution</b>	Select the default scan resolution for the scanned document: <ul style="list-style-type: none"> <li>• 75 dpi</li> <li>• 150 dpi</li> <li>• 200 dpi</li> <li>• 300 dpi</li> <li>• 400 dpi</li> <li>• 600 dpi</li> </ul>

7. Review the **Summary** area, and then click **Finish** to complete the setup.

**Method two: Advanced configuration using the Email Setup**

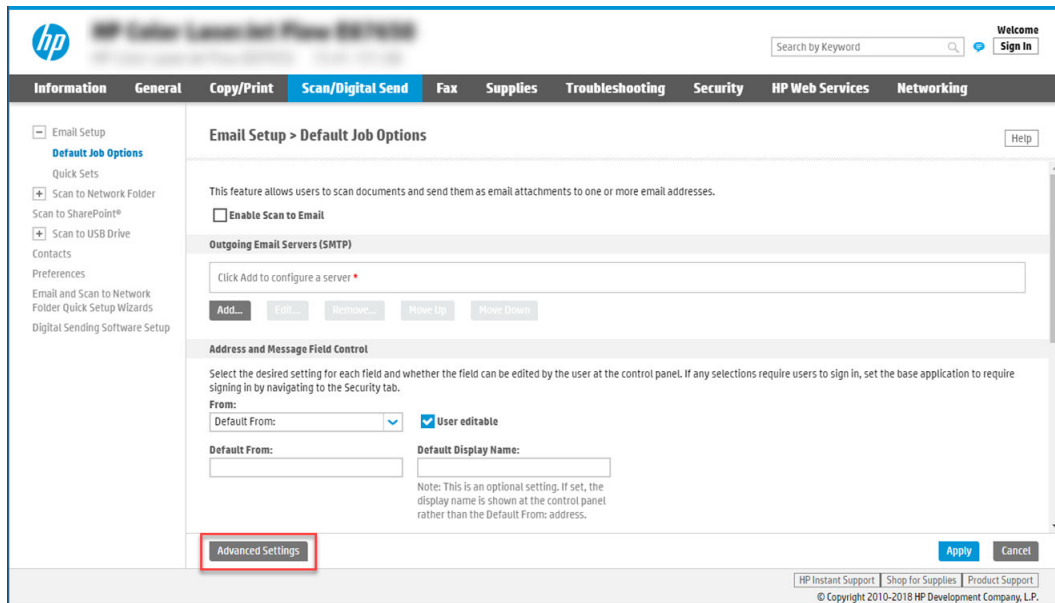
Use the following steps for advanced configuration using the **E-mail Setup** dialog.

1. Using the EWS top navigation tabs, click **Scan/Digital Send**, expand the **Email Setup** menu in the left navigation pane, and then click **Default Job Options**.

The **Default Job Options** page displays the **Basic Settings** for Scan to Email setup. To access additional settings, click the **Advanced Settings** button at the bottom of the page. To switch back to basic settings, click the **Basic Settings** button.

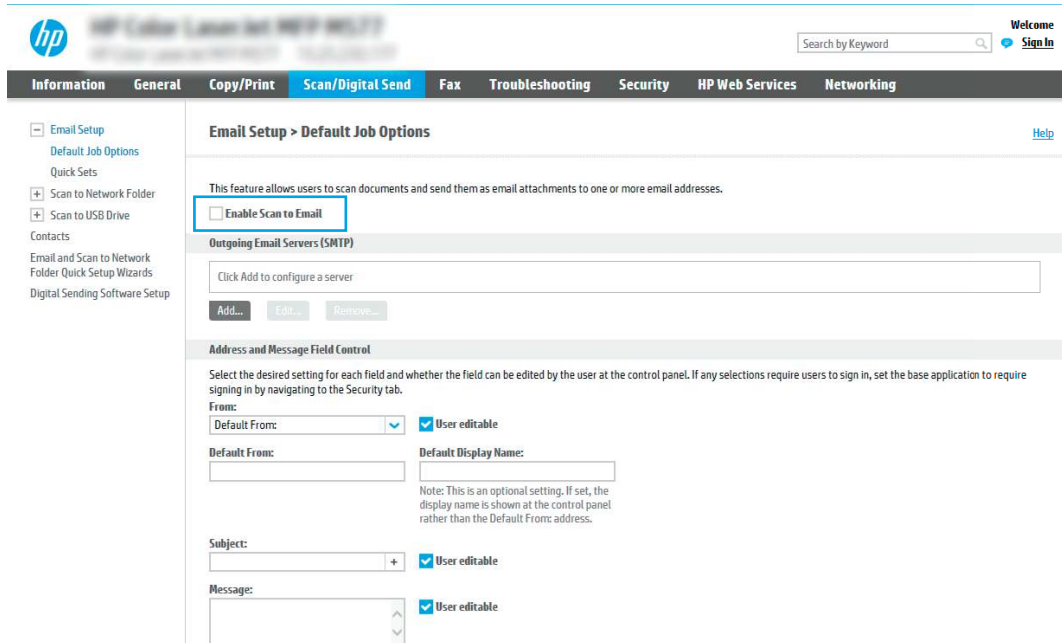
 **NOTE:** This procedure covers the steps for **Basic Settings** first and then the steps for **Advanced Settings**.

**Figure 6-15 Location of Advanced Settings button**




2. On the **Default Job Options** page, select the **Enable Scan to Email** check box. If this check box is not selected, the feature is unavailable at the printer control panel.

**Figure 6-16 Enable Scan to Email**



3. In the **Outgoing Email Servers (SMTP)** area, complete the steps for one of the following options:
  - Select one of the displayed servers.
  - Click **Add** to start the SMTP wizard.
    - a. In the SMTP wizard, select one of the following options:
      - **Option one: I know my SMTP server address or host name:** Enter the address of an SMTP server, and then click **Next**
      - **Option two:** If you do not know the address of the SMTP server, select **Search network for outgoing email server**, and then click **Next**. Select the server, and then click **Next**.

 **NOTE:** If an SMTP server was already created for another printer function, the **Use a server already in use by another function** option displays. Select this option, and then configure it to be used for the email function.

- b. On the **Set the basic information necessary to connect to the server** dialog, set the options to use, and then click **Next**.
  - Some servers have problems sending or receiving emails that are larger than 5 megabytes (MB). These problems can be prevented by entering a number in **Split emails if larger than (MB)**.
  - In most cases, the default port number does not need to be changed. However, when using the Enable SMTP SSL Protocol option, port 587 must be used.

- If you are using Google™ Gmail for email service, select the **Enable SMTP SSL Protocol** check box. Typically, for gmail, the SMTP address is smtp.gmail.com, port number 465, and the SSL should be enabled. Refer to online sources to confirm these server settings are current and valid at the time of configuration.
- c. On the **Server Authentication Requirements** dialog, select the option that describes the server's authentication requirements:
- **Server does not require authentication**, and then click **Next**.
  - **Server requires authentication**
    - From the drop-down box, select **Use credentials of user to connect after Sign In at the control panel**, and then click **Next**.
    - From the drop-down box, select **Always use these credentials**, enter the **Username** and **Password**, and then click **Next**.



**NOTE:** If using a signed-in user's credentials, set email to require sign in by the user on the printer control panel. Deny device guest access to email by clearing the check box for email in the **Device Guest** column in the **Sign in and Permission Policies** area on the **Access Control** dialog of the **Security** tab. The icon in the check box changes from a check mark to a lock.

- d. On the **Server Usage** dialog, choose the printer functions that will send email through this SMTP server, and then click the **Next** button.

If the server requires authentication, a user name and password for sending automatic alerts and reports from the printer will be required.

- e. On the **Summary and Test** dialog, enter a valid email address in the **Send test email to:** field, and then click **Test**.
- f. Verify that all of the settings are correct, and then click **Finish** to complete the outgoing email server set up.

4. In the **Address and Message Field Control** area, enter a **From:** setting and any of the other optional settings.

**Table 6-22 Address and Message Field Control (Basic Settings)**

Feature	Description
<b>User editable</b>	To use the <b>Default From</b> address and <b>Default Display Name</b> for all emails sent from this printer (unless a user is signed in), clear the <b>User editable</b> check box.  When setting up the address fields, if the <b>User editable</b> check box is cleared, users will not be able to edit those fields at the printer control panel when sending an email. For send-to-me functionality, clear the <b>User editable</b> check boxes for all of the address fields, including the <b>From:</b> , <b>To:</b> , <b>CC:</b> , and <b>BCC:</b> fields, and then set that user's send email <b>From:</b> their own email address and <b>To:</b> their own email address.
<b>Default From:</b> and <b>Default Display Name:</b>	Provide an email address and name to use for the <b>From:</b> address for the email message.  <b>NOTE:</b> Create an email account for the printer, and use this address for the default email address.  <b>NOTE:</b> Configure the email feature so that users must sign in before using it. This prevents users from sending an email from an address that is not their own.
<b>Subject:</b>	Provide a default subject line for the email messages.

**Table 6-22 Address and Message Field Control (Basic Settings) (continued)**

Feature	Description
<b>Message:</b>	Create a custom message. To use this message for all emails sent from the printer, clear or do not select the <b>User editable</b> check box for <b>Message</b> .

**Table 6-23 Address and Message Field Control (Advanced Settings - optional)**

Feature	Description
<b>Address Field Restrictions</b>	<p>Specify whether users must select an email address from an address book or whether users are allowed to enter in an email address manually.</p> <p><b>CAUTION:</b> If <b>Users must select from address book</b> is selected, and any of the address fields are also set as <b>User editable</b>, changes to those editable fields also change the corresponding values in the address book.</p> <p>To prevent users from changing contacts in the Address Book at the printer control panel, go to the <b>Access Control</b> page on the <b>Security</b> tab, and deny <b>Device Guest</b> access to address book modifications.</p>
<b>Allow invalid email address formats</b>	Select to allow an invalid email address format.
<b>To:</b>	Provide a To (recipient) email address for emails.
<b>CC:</b>	Provide a CC email address for emails.
<b>BCC:</b>	Provide a BCC email address for emails.

5. In the **File Settings** area, set the default file settings preferences.

**Table 6-24 File Settings (Basic Settings)**

Feature	Description
<b>File Name</b>	<p>Default file name for the file to be saved.</p> <p>Select the <b>User editable</b> check box to make this setting editable at the printer control panel.</p>
<b>File Type</b>	<p>Select the file format for the saved file.</p> <p>Select the <b>User editable</b> check box to make this setting editable at the printer control panel.</p>
<b>Resolution</b>	Set the resolution for the file. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller.
<b>Quality and File Size</b>	Select the quality for the file. Higher-quality images require a larger file size than lower-quality images, and they take more time to send.
<b>Color/Black</b>	Specify whether copies are to be printed in color, black and gray, or black only.

**Table 6-25 File settings (Advanced Settings - optional)**

Feature	Description
<b>File Name Prefix</b>	Set the default file name prefix used for files saved to a network folder.

**Table 6-25 File settings (Advanced Settings - optional) (continued)**

Feature	Description
<b>File Name Suffix</b>	Set the default file name suffix used for files saved to a network folder.  Duplicate filename suffix default [filename]_YYYYMMDDT
<b>File Name Preview</b>	Enter a file name, and then click the <b>Update Preview</b> button.
<b>File Numbering Format</b>	Select a file name format for when the job is divided into multiple files.
<b>Add numbering when job has just one file (ex. _1-1)</b>	Select this setting to add numbering to a file name when the job is only one file instead of multiple files.
<b>High Compression (smaller file)</b>	Select this setting to compress the scanned file, which reduces the file size. However, the scanning process for a High compression file might take longer than for a Normal compression file.
<b>PDF encryption</b>	If the file type is PDF, then this option encrypts the output PDF file. A password must be specified as part of the encryption. The same password must be used to open the file. The user will be prompted to enter a password prior to scanning their job if one has not been set prior to pressing start.
<b>Suppress blank pages</b>	If the <b>Suppress blank pages</b> option is enabled, blank pages will be ignored.
<b>Create Multiple Files</b>	Select this setting to scan pages into separate files based on a predetermined maximum number of pages per file.

6. Click the **Advanced Settings** button to display the following settings:
  - **Signing and Encryption**
  - **Notification** (job notification)
  - **Scan Settings**
7. In the **Signing and Encryption** area, set the signing and encryption preferences.

**Table 6-26 Signing and Encryption settings**

Feature	Description
<b>Signing</b>	Select whether to sign the email with a security certificate.  Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>Hashing Algorithm</b>	Select the algorithm to use for signing the certificate.
<b>Encryption</b>	Select whether to encrypt the email.  Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>Encryption Algorithm</b>	Select the algorithm to use for encrypting the email.
<b>Attribute for Recipient Public Key</b>	Enter which attribute to use to retrieve the recipient's public key certificate from LDAP.
<b>Use the recipient public key certificate to verify the recipient</b>	Select this setting to use the recipient's public key certificate to verify the recipient.

8. In the **Notification** area, select when users will receive notifications about sent emails. The default setting is using the signed in user's email address. If the recipient email address is blank, no notification is sent.

9. In the **Scan Settings** area, set the default scanning preferences.

**Table 6-27 Scan Settings**

Feature	Description
<b>Original Size</b>	Select the page size of the original document.
<b>Original Sides</b>	Select whether the original document is single-sided or double-sided.
<b>Optimize Text/Picture</b>	Select to optimize the output of a particular type of content.
<b>Content Orientation</b>	Select the way the content of the original document is placed on the page: <b>Portrait</b> or <b>Landscape</b> .
<b>Background Cleanup</b>	Select a value to remove faint images from the background or to remove a light background color.
<b>Darkness</b>	Select a value to adjust the darkness of the file.
<b>Contrast</b>	Select a value to adjust the contrast of the file.
<b>Sharpness</b>	Select a value to adjust the sharpness of the file.
<b>Image Preview</b>	Select whether to require or make optional a displayed preview of the job or to disable a preview.
<b>Cropping Options</b>	Select whether or not to allow a job to be cropped and the type of cropping option.
<b>Erase Edges</b>	Select this setting to specify the width of edge margins to be erased, in either inches or millimeters, for the front side and back side of a job.

10. Review the selected options to verify that they are accurate, and then click **Apply** to complete the setup.

### Step three: Configure the Quick Sets (optional)

Quick Sets are optional short-cut jobs that can be accessed on the main Home screen or within the Quick Sets application at the printer. Use the following procedure to configure the Quick Sets.


1. In the **Email Setup** area of the left navigation pane, click **Quick Sets**.
2. Select one of the following options:
  - Select an existing Quick Set under Quick Sets Application in the table.
  - OR-
  - Click **Add** to start the Quick Set Wizard.
3. If you selected **Add**, the **Quick Sets Setup** page opens. Complete the following information:
  - **Quick Set Name:** Enter a title for the new Quick Set.
  - **Quick Set Description:** Enter a description of the Quick Set.
  - **Quick Set Start Option:** To set how the Quick Set starts, click either **Enter application, then user presses Start** or **Start instantly when selected from the Home Screen**.
4. Define the following settings for the Quick Set: Address and Message Field Control, Signing and Encryption, Notification, Scan Settings, File Settings.
5. Click **Finish** to save the Quick Set.

## Step four: Set up Scan to Email to use Office 365 Outlook (optional)

Enable the printer to send an email with an Office 365 Outlook account from the control panel.

### Introduction

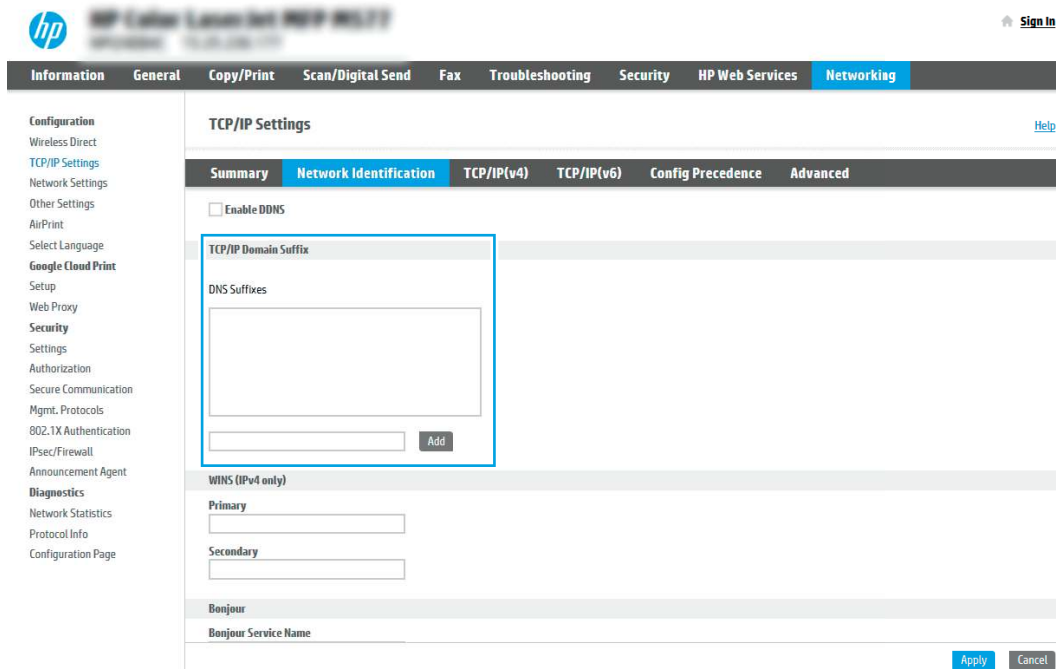
Microsoft Office 365 Outlook is a cloud-based email system provided by Microsoft which uses Microsoft's Simple Mail Transfer Protocol (SMTP) server to send or receive emails. Complete the following to enable the printer to send an email with an Office 365 Outlook account from the control panel.

 **NOTE:** You must have an email address account with Office 365 Outlook to configure the settings in the EWS.


## Configure the outgoing email server (SMTP) to send an email from an Office 365 Outlook account

Configure the outgoing email server using the following procedure.

1. Using the EWS top navigation tabs, click **Networking**.
2. In the left navigation pane, click **TCP/IP Settings**.
3. In the **TCP/IP Settings** area, click the **Network Identification** tab.
4. If DNS is required on the network, in the **TCP/IP Domain Suffix** area, verify that the DNS suffix for the email client being used is listed. DNS suffixes have this format: *companyname.com*, *Gmail.com*, etc.



The screenshot shows the HP EWS interface for TCP/IP Settings. The 'Networking' tab is selected in the top navigation bar. In the left-hand navigation pane, 'TCP/IP Settings' is highlighted. The main content area shows the 'TCP/IP Settings' page with the 'Network Identification' tab selected. Under this tab, there is a section for 'TCP/IP Domain Suffix' which includes a 'DNS Suffixes' list and an 'Add' button. Below this are sections for 'WINS (IPv4 only)' with 'Primary' and 'Secondary' input fields, and 'Bonjour' with a 'Bonjour Service Name' input field. 'Apply' and 'Cancel' buttons are at the bottom right.

 **NOTE:** If the Domain Name suffix is not set up, use the IP address.

5. Click **Apply**.
6. Click the **Scan/Digital Send** tab.
7. On the left navigation pane, click **Email Setup**.

- On the Email Setup page, select the **Enable Scan to Email** check box. If this check box is not available, the feature is unavailable at the printer control panel.

The screenshot shows the HP Email Setup interface. The top navigation bar includes 'Information', 'General', 'Copy/Print', 'Scan/Digital Send', 'Fax', 'Troubleshooting', 'Security', 'HP Web Services', and 'Networking'. The left sidebar lists various setup options, with 'Email Setup' expanded to show 'Default Job Options', 'Quick Sets', 'Scan to Network Folder', 'Scan to USB Drive', 'Contacts', 'Email and Scan to Network Folder Quick Setup Wizards', and 'Digital Sending Software Setup'. The main content area is titled 'Email Setup > Default Job Options'. A message states: 'This feature allows users to scan documents and send them as email attachments to one or more email addresses.' Below this, the 'Enable Scan to Email' checkbox is highlighted with a red box. The 'Outgoing Email Servers (SMTP)' section contains a text input field with the placeholder 'Click Add to configure a server' and buttons for 'Add...', 'Edit...', and 'Remove...'. The 'Address and Message Field Control' section includes instructions: 'Select the desired setting for each field and whether the field can be edited by the user at the control panel. If any selections require users to sign in by navigating to the Security tab.' It lists fields for 'From:', 'Subject:', and 'Message:', each with a dropdown menu and a 'User editable' checkbox. The 'Default From:' field is currently set to 'Default From:' and has a 'User editable' checkbox checked. The 'Default Display Name:' field is empty and has a 'User editable' checkbox checked. A note states: 'Note: This is an optional setting. If set, the display name is shown at the control panel rather than the Default From: address.'

- In the **Outgoing Email Servers (SMTP)** area, click **Add** to start the SMTP wizard.
- In the **I know my SMTP server address or host name** field, type `smtp.onoffice.com`, and then click **Next**.
- On the **Set the basic information necessary to connect to the server** dialog, in the **Port Number** field, type `587`.



**NOTE:** Some servers have problems sending or receiving emails that are larger than 5 megabytes (MB). These problems can be prevented by entering a number in **Split emails if larger than (MB)**.

- Select the **Enable SMTP SSL Protocol** check box, and then click **Next**.
- On the **Server Authentication Requirements** dialog, complete the following information:
  - Select **Server requires authentication**.
  - From the drop-down list, select **Always use these credentials**.
  - In the **Username** field, type the Office 365 Outlook email address.
  - In the **Password** field, type the Office 365 Outlook account password, and then click **Next**.
- On the **Server Usage** dialog, choose the printer functions that will send email through this SMTP server, and then click the **Next** button.
- On the **Summary and Test** dialog, enter a valid email address in the **Send a test email to:** field, and then click **Test**.
- Verify that all of the settings are correct, and then click **Finish** to complete the outgoing email server setup.

For more information, go to [Microsoft's Support page](#).

## Set up Scan to Network Folder

Learn how to set up the Scan to Network Folder feature.

 **NOTE:** The steps vary according to the type of control panel.

**Table 6-28** Control panels

Firmware Version	Control panels
FutureSmart 3	
FutureSmart 4	

### FutureSmart 3


Use the following steps for FutureSmart 3.

#### Introduction

This document explains how to enable and configure the Scan to Network Folder function. The printer has a feature that enables it to scan a document and save it to a network folder. To use this scan feature, the printer must be connected to a network; however, the feature is not available until it has been configured. There are two methods for configuring Scan to Network Folder, the **Save to Network Folder Quick Set Wizard** for basic setup and **Save to Network Folder Setup** for advanced setup.

#### Before you begin

Review the following information before you set up the Scan to Network Folder feature.


 **NOTE:** To set up the **Scan to Network Folder** feature, the printer must have an active network connection.

Administrators need the following items before beginning the configuration process.


- Administrative access to the printer

- The fully-qualified domain name (FQDN) (e.g., \\servername.us.companyname.net\scans) of the destination folder OR the IP address of the server (e.g., \\16.88.20.20\scans).

---

 **NOTE:** The use of the term "server" in this context refers to the computer where the shared folder resides.

---

 **NOTE:** The network folder must be set up as a shared folder for the Scan to Network Folder feature to work. For more information about setting up a shared folder, see [Set up a shared folder](#) (c04431534).

---

[View a video demonstration on how to set up the Scan to Network feature on FutureSmart 3 printers](#)

## Set up Save to Network Folder

Use one of the following methods to set up Save to Network Folder.

### Method one: Use the Save to Network Folder Wizard

This option opens the setup wizard that is in the HP Embedded Web Server (EWS) for the printer. The setup wizard includes the options for basic configuration.


---


 **NOTE:** **Before you begin:** To display the printer's IP address or host name, touch the Network  button on the printer's control panel.

---

1. Click the **Scan/Digital Send** tab. The **E-mail and Save to Network Folder Quick Setup Wizards** dialog opens.
2. Click the **Save to Network Folder Quick Set Wizard** link.
3. On the **Add or Remove a Save to Network Folder Quick Set** dialog, click **Add**.

---


 **NOTE:** Quick Sets are short-cut jobs that can be accessed on the printer Home screen or within the Quick Sets application.

 **NOTE:** The Save to Network Folder feature can be minimally configured without creating a quick set. However, without the quick set, users must enter the destination folder information at the control panel for each scan job. A quick set is required to include Save to Network Folder metadata.

---

4. On the **Add Folder Quick Set** dialog, complete the following information:
  - a. In the **Quick Set Title** field, type a title.

---

 **NOTE:** Name the Quick Set something that users can understand quickly (e.g., "Scan and save to a folder").
  - b. From the **Button Location** drop-down, select one of the following options to indicate where the Quick Set button will display on the product control panel:
    - **Quick Sets Application**
    - **Home Screen**
  - c. In the **Quick Set Description** field, type a description explaining what the Quick Set will save.
  - d. Click **Next**.
5. On the **Configure Destination Folder** dialog, complete the following information:

- a. In the **UNC Folder Path** field, type a folder path where the scan will go.

The folder path can either be the fully-qualified domain name (FQDN) or the IP address of the server. Be sure that the folder path (e.g., `\scans`) follows the FQDN or IP address.

FQDN example: `\\servername.us.companyname.net\scans`

IP address example: `\\16.88.20.20\scans`



**NOTE:** The FQDN can be more reliable than the IP address. If the server gets its IP address via DHCP, the IP address can change. However, the connection with an IP address might be faster because the printer does not need to use DNS to find the destination server.

- b. From the **Authentication Settings** drop-down, select one of the following options:

- **Use credentials of user to connect after Sign In at the control panel**
- **Always use these credentials**



**NOTE:** If **Always use these credentials** is selected, a user name and password must be entered in the corresponding fields, and the printer's access to the folder must be verified by clicking **Verify Access**.

- c. In the **Windows Domain** field, type the Windows domain.



**NOTE:** To find the Windows domain in Windows 7, click **Start**, click **Control Panel**, click **System**.

To find the Windows domain in Windows 8, click **Search**, enter **System** in the search box, and then click **System**.

The domain is listed under **Computer name, domain, and workgroup settings**.

- d. Click **Next**.
6. On the **Configure File Scan Settings** dialog, set the default scanning preferences for the Quick Set, and then click **Next**.
7. Review the **Summary** dialog, and then click **Finish**.
8. On the **Save to Network Folder Setup** dialog, review the selected settings, and then click **Finish** to complete the setup.

### Method two: Use Scan to Network Folder Setup

This option enables advanced configuration of the Save to Network Folder feature using the HP Embedded Web Server (EWS) for the printer.



**NOTE: Before you begin:** To display the printer's IP address or host name, touch the Network  button on the printer's control panel.

### Step one: Begin the configuration

Use the following steps to begin the **Save to Network Folder Setup** setup.

1. Click the **Scan/Digital Send** tab.
2. On the left navigation menu, click the **Save to Network Folder Setup** link.

## Step two: Configure the Save to Network Folder settings

Configure the Save to Network Folder settings as follows.

### Start the Quick Set Wizard

Use the following steps to navigate to and start the Quick Set Wizard.

1. On the **Save to Network Folder Setup** dialog, select the **Enable Save to Network Folder** check box. If this box is not selected, the feature is unavailable at the printer control panel.
2. In the Quick Sets area, click **Add**. The Quick Set Wizard opens.



**NOTE:** Quick Sets are short-cut jobs that can be accessed on the printer Home screen or within the Quick Sets application.



**NOTE:** The **Save to Network Folder** feature can be minimally configured without creating a quick set. However, without the quick set, users must enter the destination folder information at the control panel for each scan job. A quick set is required to include Save to Network Folder metadata.

---

Complete all of the dialogs in the Quick Set Wizard to fully configure the Save to Network Folder feature.

### Dialog one: Set the button location for the Quick Set and options for user interaction at the control panel

Use this dialog to configure where the **Quick Set** button will display on the printer control panel and to configure the level of user interaction at the printer control panel.

1. In the **Quick Set Title** field, type a title.



**NOTE:** Name the Quick Set something that users can understand quickly (e.g., "Scan and save to a folder").

---

2. From the **Button Location** list, select one of the following to indicate where the Quick Set button will display on the product control panel:

- **Quick Sets Application**
- **Home Screen**

3. In the **Quick Set Description** field, type a description explaining what the Quick Set will save.

4. From the **Quick Set Start Option** list, select one of the following options:

- Option one: **Enter application, then user presses Start**
- Option two: **Start instantly upon selection**

Select one of the following options under **Original Sides Prompt**:

- **Use application default**
- **Prompt for original sides**



**NOTE:** If **Start instantly upon selection** is selected, the destination folder must be entered in the next step.

---

5. Click **Next**.

## Dialog two: Folder Settings

Use the **Folder Settings** dialog to configure the types of folders the printer sends scanned documents to.

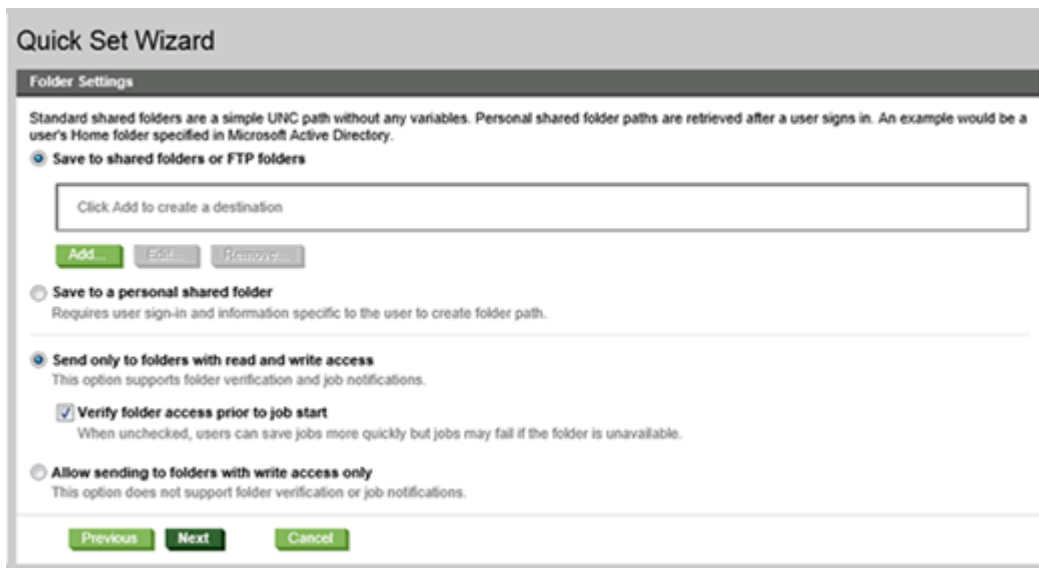
There are two types of destination folders to select from:

- Shared folders or FTP folders
- Personal shared folders

There are two types of folder permissions to select from:

- Read and write access
- Write access only

The following information describes how to configure the folder settings.




### Configure the destination folder for scanned documents

Use one of the following options to configure the destination folder.

#### Option 1: Shared folders or FTP folders

To save scanned documents to shared folders or FTP folders, complete the following steps:

1. If it is not already selected, select **Save to shared folders or FTP folders**.
2. Click **Add...**. The **Add Network Folder Path** dialog opens.
3. On the **Add Network Folder Path** dialog, select one of the following options:
  - Option one: **Save to a standard shared network folder**


 **NOTE:** For more information about creating shared network folders see [Set up a shared folder](#) (c04431534).

- a. If it is not already selected, select **Save to a standard shared network folder**.
- b. In the **UNC Folder Path** field, type a folder path.


The folder path can either be the fully-qualified domain name (FQDN) or the IP address of the server. Be sure that the folder path (e.g., `\scans`) follows the FQDN or IP address.

FQDN example: `\\servername.us.companyname.net\scans`


IP address example: `\\16.88.20.20\scans`

 **NOTE:** The FQDN can be more reliable than the IP address. If the server gets its IP address via DHCP, the IP address can change. However, the connection with an IP address might be faster because the printer does not need to use DNS to find the destination server.

- c. To automatically create a subfolder for scanned documents in the destination folder, select a format for the subfolder name from the **Custom Subfolder** list.  
To restrict the subfolder access to the user who creates the scan job, select **Restrict subfolder access to user**.
- d. To view the complete folder path for scanned documents, click **Update Preview**.
- e. From the **Authentication Settings** list, select one of the following options:
  - **Use credentials of user to connect after Sign In at the control panel**
  - **Always use these credentials**


 **NOTE:** If **Always use these credentials** is selected, a user name and password must be entered in the corresponding fields.


- f. In the **Windows Domain** field, type the Windows domain.

 **NOTE:** To find the Windows domain in Windows 7, click **Start**, click **Control Panel**, click **System**.

To find the Windows domain in Windows 8, click **Search**, enter **System** in the search box, and then click **System**.

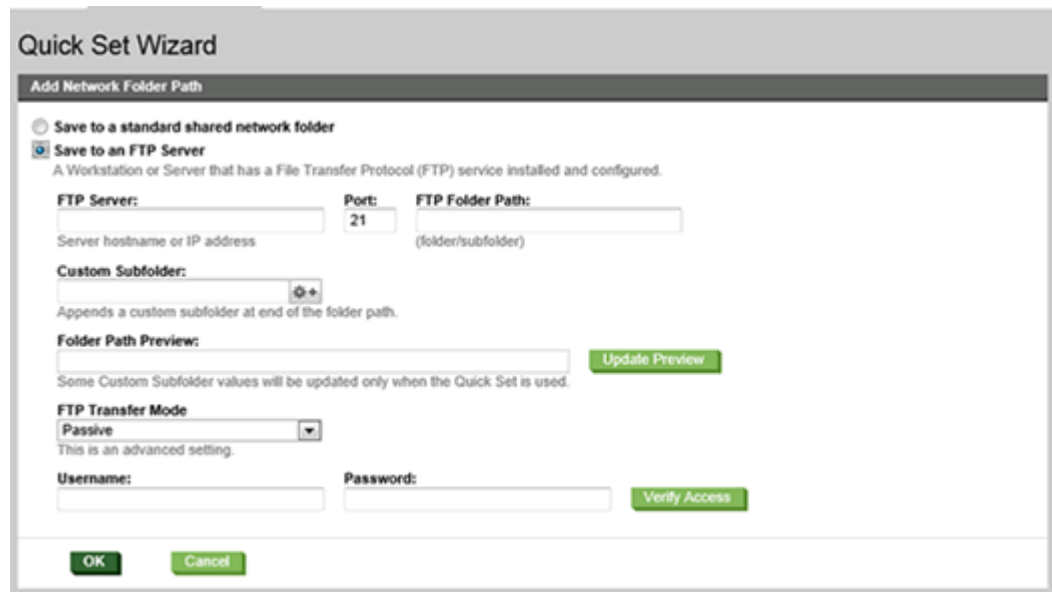
The domain is listed under **Computer name, domain, and workgroup settings**.

 **NOTE:** If a shared folder is set to be accessed by everyone, values for a workgroup name (default is “Workgroup”), a user name and password must be entered in the corresponding fields. However, if the folder is within a particular user’s folders and not Public, the user name and password of that user must be used.


 **NOTE:** An IP address might be necessary instead of a computer name. Many home routers do not handle computer names well, and there is no Domain Name Server (DNS). In this case, it is best to set up a static IP address on the shared PC to alleviate the problem of DHCP assigning a new IP address. On a typical home router, this is done by setting a static IP address that is on the same subnet, but outside the DHCP address range.

- g. Click **OK**.

- Option two: **Save to an FTP Server**



The screenshot shows the 'Quick Set Wizard' dialog box, specifically the 'Add Network Folder Path' step. The 'Save to an FTP Server' option is selected. The dialog includes fields for 'FTP Server' (Server hostname or IP address), 'Port' (21), and 'FTP Folder Path' (folder/subfolder). There is also a 'Custom Subfolder' field with a plus icon. Below these is a 'Folder Path Preview' field and an 'Update Preview' button. The 'FTP Transfer Mode' is set to 'Passive'. At the bottom, there are 'Username' and 'Password' fields with a 'Verify Access' button. 'OK' and 'Cancel' buttons are at the very bottom.

 **NOTE:** If an FTP site is outside the firewall, a proxy server must be specified under the network settings. These settings are located in the **EWS Networking** tab, under the **Advanced** options.

- a. Select **Save to an FTP Server**.
- b. In the **FTP Server** field, type the FTP server name or IP address.
- c. In the **Port** field, type the port number.

 **NOTE:** In most cases, the default port number does not need to be changed.

- d. To automatically create a subfolder for scanned documents in the destination folder, select a format for the subfolder name from the **Custom Subfolder** list.
- e. To view the complete folder path for scanned documents, click **Update Preview**.
- f. From the **FTP Transfer Mode** list, select one of the following options:
  - **Passive**
  - **Active**
- g. In the **Username** field, type the user name.
- h. In the **Password field**, type the password.
- i. Click **Verify Access** to confirm the destination can be accessed.
- j. Click **OK**.

### Option 2: Personal shared folders

To save scanned documents to a personal shared folder, complete the following steps:



---

**NOTE:** This option is used in domain environments where the administrator configures a shared folder for each user. If the Save to a personal shared folder feature is configured, users will be required to sign in at the printer control panel using Windows credentials or LDAP authentication.

---

1. Select **Save to a personal shared folder**.
2. In the **Retrieve the device user's home folder using this attribute** field, type the user's home folder in the Microsoft Active Directory.



---

**NOTE:** Verify that the user knows where this home folder is located on the network.

---

3. To add a user name subfolder at the end of the folder path, select **Create subfolder based on user name**.

To restrict the subfolder access to the user who creates the scan job, select **Restrict subfolder access to user**.

### Select the destination folder permissions

Use one of the following options to select the destination folder permissions.

#### Option 1: Read and write access

To send scanned documents to a folder configured for read and write access, complete the following steps:



---

**NOTE:** **Send only to folders with read and write access** supports folder verification and job notification

---

1. If it is not already selected, select **Send only to folders with read and write access**.
2. To require the printer to verify folder access before starting a scan job, select **Verify folder access prior to job start**.



---

**NOTE:** Scan jobs can complete more quickly if **Verify folder access prior to job start** is not selected; however, if the folder is unavailable, the scan job will fail.


---


3. Click **Next**.

### Option 2: Write access only

To send scanned documents to a folder configured for write access only, complete the following steps:

---

 **NOTE:** **Allow sending to folders with write access only** does not support folder verification or job notification

 **NOTE:** If this option is selected, the printer cannot increment the scan filename. It sends the same filename for all scans.

Select a time-related filename prefix or suffix for the scan filename, so that each scan is saved as a unique file, and does not overwrite a previous file. This filename is determined by the information in the File Settings dialog in the Quick Set Wizard.

---


1. Select **Allow sending to folders with write access only**.
2. Click **Next**.

### Dialog three: Notification settings

Learn how to configure Notification settings.

- On the **Notification Settings** dialog, complete one of the following tasks:

---

 **NOTE:** In order to send notification emails, the printer must be set up to use an SMTP server for sending email jobs. For more information about setting up the SMTP server for sending emails see [Set up Scan to Email](#) (c05523998).

---

- Option one: **Do not notify**
  - a. Select **Do not notify**.
  - b. To prompt the user to review their notification settings, select **Prompt user prior to job start**, and then click **Next**.
- Option two: **Notify when job completes**
  - a. Select **Notify when job completes**.
  - b. Select the method for delivering the notification from the **Method Used to Deliver Notification** list.

If the method of notification selected is **E-mail**, type the email address in the **Notification E-mail Address** field.
  - c. To include a thumbnail of the first scanned page in the notification, select **Include Thumbnail**.
  - d. To prompt the user to review their notification settings, select **Prompt user prior to job start**, and then click **Next**.
- Option three: **Notify only if job fails**
  - a. Select **Notify only if job fails**.
  - b. Select the method for delivering the notification from the **Method Used to Deliver Notification** list.

If the method of notification selected is **E-mail**, type the email address in the **Notification E-mail Address** field.

- c. To include a thumbnail of the first scanned page in the notification, select **Include Thumbnail**.
- d. To prompt the user to review their notification settings, select **Prompt user prior to job start**, and then click **Next**.

#### Dialog four: Scan Settings

Learn about the Scan Settings.

On the **Scan Settings** dialog, set the default scanning preferences for the Quick Set, and then click **Next**.

**Table 6-29** Scan settings and descriptions

Feature	Description
<b>Original Size</b>	Select the page size of the original document.
<b>Original Sides</b>	Select whether the original document is single-sided or double-sided.
<b>Optimize Text/Picture</b>	Select to optimize for the output of a particular type of content, or select <b>Manually adjust</b> .
<b>Optimize For</b>	This setting is only available when <b>Optimize Text/Picture</b> is set to <b>Manually adjust</b> . Select a manual-adjust value.
<b>Content Orientation</b>	Select the way the content of the original document is placed on the page: <b>Portrait</b> or <b>Landscape</b> , or select <b>Automatically detect</b> .
<b>2-Sided Format</b>	This setting is not available when <b>Content Orientation</b> is set to <b>Automatically detect</b> . Select to describe the binding of the page to specify if the back side of the page is upside down or right side up.
<b>Background Cleanup</b>	Select a value to remove faint images from the background or to remove a light background color.
<b>Darkness</b>	Select a value to adjust the darkness of the file.
<b>Contrast</b>	Select a value to adjust the contrast of the file.
<b>Sharpness</b>	Select a value to adjust the sharpness of the file.
<b>Image Preview</b>	Select whether to require or make optional a displayed preview of the job or to disable a preview.
<b>Cropping Options</b>	Select whether or not to allow a job to be cropped and the type of cropping option.
<b>Job Build</b>	Select this setting to combine several sets of original documents into one email attachment. Also, use this setting to scan an original document that has more pages than the document feeder can accommodate at one time.
<b>Automatic Tone</b>	Select this setting to set to automatic the <b>Darkness</b> , <b>Contrast</b> , and <b>Background cleanup</b> settings, which then makes these settings unavailable on this page.
<b>Multi-feed Detection</b>	Select this setting to enable detection of multi-feed jobs.
<b>Erase Edges</b>	Select this setting to specify the width of edge margins to be erased, in either inches or millimeters, for the front side and back side of a job.

#### Dialog five: File Settings

Learn about the File Settings.

On the **File Settings** dialog, set the default file settings for the Quick Set, and then click **Next**.

**Table 6-30 File settings and descriptions**

Feature	Description
<b>File Name Prefix</b>	Set the default file name prefix used for files saved to a network folder.
<b>Default File Name</b>	Default file name for the file to be saved.  Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>File Name Suffix</b>	Set the default file name suffix used for files saved to a network folder.
<b>File Number Format</b>	Select a file name format for when the job is divided into multiple files.
<b>Default File Type</b>	Select the file format for the saved file.  Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>File Name Preview</b>	Enter a file name, and then click the <b>Update Preview</b> button.
<b>Default Color Preference</b>	Select whether the file is in black & white or in color.
<b>Default Output Quality</b>	Select the quality for the file. Higher-quality images require a larger file size than lower-quality images, and they take more time to send.
<b>Default Resolution</b>	Set the resolution for the file. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller.
<b>Compression</b>	Specify if the file uses Normal or High compression when saving a scanned document as a PDF or XPS file. If compression is set to High, the scanned file is smaller, but the scanning process might take longer than Normal compression.
<b>Black TIFF Compression</b>	Select the black TIFF compression algorithm to be used to compress the generated TIFF file.
<b>Color/Grayscale TIFF Compression</b>	Select the color/grayscale TIFF compression algorithm to be used to compress the generated TIFF file.
<b>PDF encryption</b>	If the file type is PDF, then this option encrypts the output PDF file. A password must be specified as part of the encryption. The same password must be used to open the file. The user will be prompted to enter a password prior to scanning their job if one has not been set prior to pressing start.
<b>Disable OCR file types</b>	Select this setting to prevent OCR file types from being available from the product control panel.
<b>Enable Blank Page Suppression</b>	If the <b>Enable Blank Page Suppress</b> option is enabled, blank pages will be ignored.

### Dialog six: Summary

Review the summary of the Scan to Network setup.

On the **Summary** dialog, review the **Summary** dialog, and then click **Finish**.

### Step three: Complete the configuration

Complete the **Save to Network Folder** setup as follows:

- On the **Save to Network Folder** dialog, review the selected settings, and then click **Apply** to complete the setup.

### FutureSmart 4

Use the following steps for FutureSmart 4.

## Introduction

This document explains how to enable and configure the Scan to Network Folder function. The printer has a feature that enables it to scan a document and save it to a network folder. To use this scan feature, the printer must be connected to a network; however, the feature is not available until it has been configured.

There are two methods for configuring Scan to Network Folder, the **Save to Network Folder Setup Wizard** for basic setup and **Save to Network Folder Setup** for advanced setup.



[View a video on how to set up the Scan to Network feature on FutureSmart 4 printers](#)

## Before you begin

Have the following items available before you set up the Scan to Network feature.



**NOTE:** To set up the Scan to Network Folder feature, the printer must have an active network connection.

Administrators need the following items before beginning the configuration process.

- Administrative access to the printer.
- The fully-qualified domain name (FQDN) (e.g., \\servername.us.companyname.net\scans) of the destination folder OR the IP address of the server (e.g., \\16.88.20.20\scans).



**NOTE:** The use of the term "server" in this context refers to the computer where the shared folder resides.



## Set up Scan to Network Folder

Use one of the following methods to set up Scan to Network Folder.

### Method one: Use the Scan to Network Folder Wizard

Use this option for basic configuration of the Save to Network Folder feature using the Scan to Network Folder wizard.



**NOTE:** Before you begin: To display the printer's IP address or host name, touch the Information icon , and then touch the Network icon  on the printer's control panel.

1. Using the EWS top navigation tabs, click **Scan/Digital Send** tab. The **Email and Scan to Network Folder Quick Setup Wizards** dialog opens.
2. In the left navigation pane, click **Email and Scan to Network Folder Quick Setup Wizards**.
3. Click the **Save to Network Folder Quick Set Wizard** link.
4. On the **Add or Remove a Save to Network Folder Quick Set** dialog, click **Add**.



**NOTE:** Quick Sets are shortcut jobs that can be accessed on the printer Home screen or within the Quick Sets application.



**NOTE:** The Save to Network Folder feature can be minimally configured without creating a quick set. However, without the Quick Set, users must enter the destination folder information at the control panel for each scan job. A quick set is required to include Save to Network Folder metadata.

5. On the **Add Folder Quick Set** dialog, complete the following information:

- a. In the **Quick Set Title** field, type a title.



---

**NOTE:** Name the Quick Set something that users can understand quickly (e.g., "Scan and save to a folder").

---

- b. In the **Quick Set Description** field, type a description explaining what the Quick Set will save.
- c. Click **Next**.

6. On the **Configure Destination Folder** dialog, complete the following information:

- a. In the **UNC Folder Path** field, type a folder path where the scan will go.

The folder path can either be the fully-qualified domain name (FQDN) or the IP address of the server. Be sure that the folder path (e.g., `\scans`) follows the FQDN or IP address.

FQDN example: `\\servername.us.companyname.net\scans`

IP address example: `\\16.88.20.20\scans`



---

**NOTE:** The FQDN can be more reliable than the IP address. If the server gets its IP address via DHCP, the IP address can change. However, the connection with an IP address might be faster because the printer does not need to use DNS to find the destination server.

---

- b. From the **Authentication Settings** drop-down, select one of the following options:

- **Use credentials of user to connect after Sign In at the control panel**
- **Always use these credentials**



---

**NOTE:** If **Always use these credentials** is selected, a user name and password must be entered in the corresponding fields, and the printer's access to the folder must be verified by clicking **Verify Access**.

---

- c. In the **Windows Domain** field, type the Windows domain.



---

**TIP:** To find the Windows domain in Windows 7, click **Start**, click **Control Panel**, click **System**.

To find the Windows domain in Windows 8, click **Search**, enter `System` in the search box, and then click **System**.

The domain is listed under **Computer name, domain, and workgroup settings**.

---

- d. Click **Next**.

7. On the **Configure File Scan Settings** dialog, set the default scanning preferences for the Quick Set, and then click **Next**.



8. Review the **Summary** dialog, and then click **Finish**.

## Method two: Use Scan to Network Folder Setup

This option enables advanced configuration of the Save to Network Folder feature using the HP Embedded Web Server (EWS) for the printer.



---

**NOTE:** Before you begin: To display the printer's IP address or host name, touch the Information icon , and then touch the Network icon  on the printer's control panel.

---

### Step one: Begin the configuration

Use the following steps to begin Scan to Network Folder setup.

1. Click the **Scan/Digital Send** tab.
2. In the left navigation pane, click **Scan to Network Folder Setup**.

### Step two: Configure the Scan to Network Folder settings

Use the following procedure to complete Scan to Network Folder setup.

#### Step one: Begin the configuration

Use the following steps to begin configuration.

1. On the Scan to Network Folder Setup page, select the **Enable Scan to Network Folder** check box. If this box is not selected, the feature is unavailable at the printer control panel.
2. In the Scan to Network Folder area of the left navigation pane, click **Quick Sets**. Click **Add** to open the **Quick Sets Setup** dialog.



**NOTE:** Quick Sets are shortcut jobs that can be accessed on the printer Home screen or within the Quick Sets application.



**NOTE:** The Scan to Network Folder feature can be minimally configured without creating a Quick Set. However, without the Quick Set, users must enter the destination folder information at the control panel for each scan job. A Quick Set is required to include Scan to Network Folder metadata.

---

Complete all of the settings in the Quick Set Setup to fully configure the Scan to Network Folder feature.

#### Dialog one: Set the Quick Set name, description, and options for user interaction at the control panel

Set the Quick Set details for user interaction at the printer's control panel.

Use the **Set the button location for the Quick Set and options for user interaction at the control panel** dialog to configure where the **Quick Set** button will display on the printer control panel and to configure the level of user interaction at the printer control panel.

1. In the **Quick Set Name** field, type a title.



**NOTE:** Name the Quick Set something that users can understand quickly (e.g., "Scan and save to a folder").

---

2. In the **Quick Set Description** field, type a description explaining what the Quick Set will save.
3. From the **Quick Set Start Option** list, select one of the following options:

- Option one: **Enter application, then user presses Start**.
- Option two: **Start instantly upon selection**.

Select one of the following prompt options :

- **Prompt for original sides**
- **Prompt for additional pages**

- **Require Preview**



---

**NOTE:** If **Start instantly upon selection** is selected, the destination folder must be entered in the next step.

---

4. Click **Next**.

### Dialog two: Folder Settings

Use the **Folder Settings** dialog to configure the types of folders the printer sends scanned documents to and the folder permissions.

There are two types of destination folders to select from:

- Shared folders or FTP folders
- Personal shared folders

There are two types of folder permissions to select from:

- Read and write access
- Write access only

### Configure the destination folder for scanned documents

Select one of the following options to set up a destination folder.

#### Option 1: Configure the printer to save to a shared folder or FTP folder

To save scanned documents to a standard shared folder or an FTP folder, complete the following steps.

1. If it is not already selected, select **Save to shared folders or FTP folders**.
2. Click **Add...**. The **Add Network Folder Path** dialog opens.
3. On the **Add Network Folder Path** dialog, select one of the following options:
  - Option one: **Save to a standard shared network folder**.

The screenshot shows the 'Quick Sets Setup' interface. The 'Add Network Folder Path' section is active, with the radio button for 'Save to a standard shared network folder' selected. The 'UNC Folder Path' field contains a placeholder path: `(\path\path)`. The 'Custom Subfolder' field has a dropdown arrow. Below it, a note says 'Appends a custom subfolder at end of the folder path.' and there is a checkbox for 'Restrict subfolder access to user'. The 'Folder Path Preview' section shows a preview area and an 'Update Preview' button. The 'Authentication Settings' dropdown is set to 'Use credentials of user to connect after Sign In at the control panel'. The 'Windows Domain' field is empty. At the bottom, there is an option for 'Save to an FTP Server' with a note: 'A Workstation or Server that has a File Transfer Protocol (FTP) service installed and configured.' The page has 'OK' and 'Cancel' buttons at the bottom right.

- a. If it is not already selected, select **Save to a standard shared network folder**.
- b. In the **UNC Folder Path** field, type a folder path.

The folder path can either be the fully-qualified domain name (FQDN) or the IP address of the server. Be sure that the folder path (e.g., `\scans`) follows the FQDN or IP address.

FQDN example: `\\servername.us.companyname.net\scans`

IP address example: `\\16.88.20.20\scans`



**NOTE:** The FQDN can be more reliable than the IP address. If the server gets its IP address via DHCP, the IP address can change. However, the connection with an IP address might be faster because the printer does not need to use DNS to find the destination server.


- c. To automatically create a subfolder for scanned documents in the destination folder, select a format for the subfolder name from the **Custom Subfolder** list.
- To restrict the subfolder access to the user who creates the scan job, select **Restrict subfolder access to user**.
- d. To view the complete folder path for scanned documents, click **Update Preview**.
- e. From the **Authentication Settings** list, select one of the following options:

- **Use credentials of user to connect after Sign In at the control panel**
- **Always use these credentials**




**NOTE:** If **Always use these credentials** is selected, a user name and password must be entered in the corresponding fields.


- f. In the **Windows Domain** field, type the Windows domain.

 **NOTE:** To find the Windows domain in Windows 7, click **Start**, click **Control Panel**, click **System**.

To find the Windows domain in Windows 8, click **Search**, enter `System` in the search box, and then click **System**.

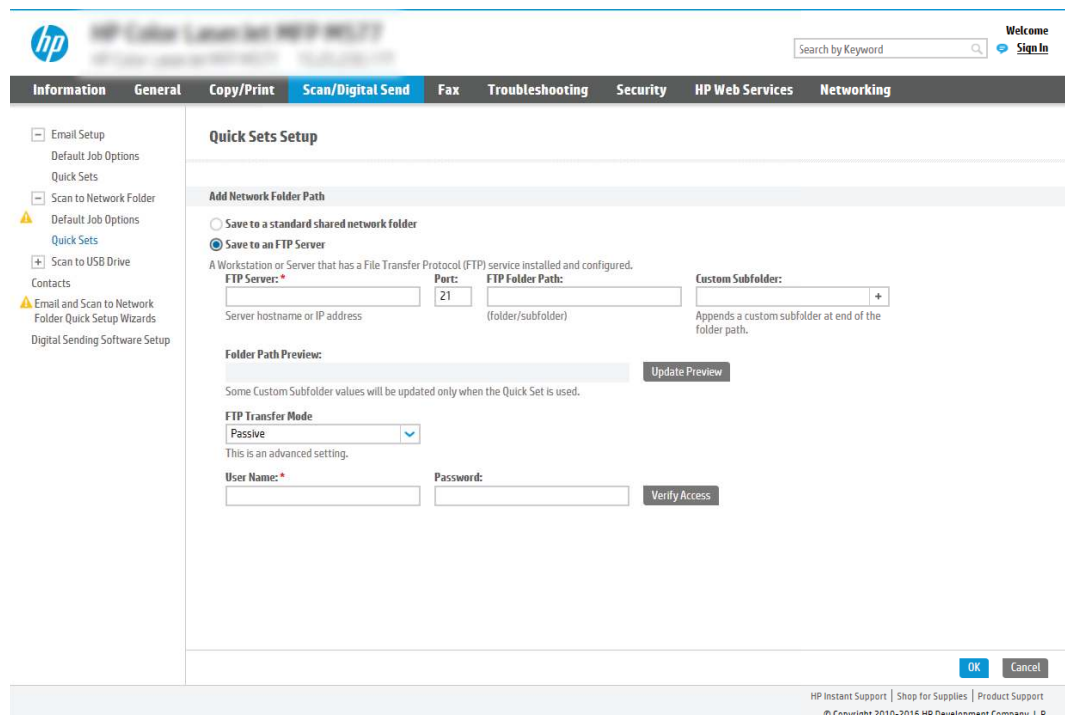
The domain is listed under **Computer name, domain, and workgroup settings**.

 **NOTE:** If a shared folder is set to be accessed by everyone, values for a workgroup name (default is “Workgroup”), a user name, and password must be entered in the corresponding fields. However, if the folder is within a particular user’s folders and not Public, the user name and password of that user must be used.


 **NOTE:** An IP address might be necessary instead of a computer name. Many home routers do not handle computer names well, and there is no Domain Name Server (DNS). In this case, it is best to set up a static IP address on the shared PC to alleviate the problem of DHCP assigning a new IP address. On a typical home router, this is done by setting a static IP address that is on the same subnet, but outside the DHCP address range.

- g. Click **OK**.

- Option two: **Save to an FTP Server**.



The screenshot shows the HP EWS interface for configuring a printer to save to an FTP server. The page title is "Quick Sets Setup" and it is under the "Scan/Digital Send" tab. The "Add Network Folder Path" section has two radio buttons: "Save to a standard shared network folder" (unselected) and "Save to an FTP Server" (selected). Below this, there is a note: "A Workstation or Server that has a File Transfer Protocol (FTP) service installed and configured." The form includes fields for "FTP Server:" (with a placeholder "Server hostname or IP address"), "Port:" (with a value of "21"), "FTP Folder Path:" (with a placeholder "(folder/subfolder)"), and "Custom Subfolder:" (with a placeholder "Appends a custom subfolder at end of the folder path."). There is a "Folder Path Preview" section with an "Update Preview" button. The "FTP Transfer Mode" is set to "Passive" with a dropdown arrow. Below that, there are fields for "User Name:" and "Password:" with a "Verify Access" button. At the bottom right, there are "OK" and "Cancel" buttons. The footer contains "HP Instant Support | Shop for Supplies | Product Support" and "© Copyright 2010-2016 HP Development Company, L.P."

 **NOTE:** If an FTP site is outside the firewall, a proxy server must be specified under the network settings. These settings are located in the **EWS Networking** tab, under the **Advanced** options.

- Select **Save to an FTP Server**.
- In the **FTP Server** field, type the FTP server name or IP address.

- c. In the **Port** field, type the port number.



---

**NOTE:** In most cases, the default port number does not need to be changed.

---

- d. To automatically create a subfolder for scanned documents in the destination folder, select a format for the subfolder name from the **Custom Subfolder** list.
- e. To view the complete folder path for scanned documents, click **Update Preview**.
- f. From the **FTP Transfer Mode** list, select one of the following options:
  - **Passive**
  - **Active**
- g. In the **Username** field, type the user name.
- h. In the **Password** field, type the password.
- i. Click **Verify Access** to confirm the destination can be accessed.
- j. Click **OK**.

### Option 2: Configure the printer to save to a personal shared folder

To save scanned documents to a personal shared folder, complete the following steps.



---

**NOTE:** This option is used in domain environments where the administrator configures a shared folder for each user. If the Save to a personal shared folder feature is configured, users will be required to sign in at the printer control panel using Windows credentials or LDAP authentication.

---

1. Select **Save to a personal shared folder**.
2. In the **Retrieve the device user's home folder using this attribute** field, type the user's home folder in the Microsoft Active Directory.



---

**NOTE:** Verify that the user knows where this home folder is located on the network.

---

3. To add a user name subfolder at the end of the folder path, select **Create subfolder based on user name**.

To restrict the subfolder access to the user who creates the scan job, select **Restrict subfolder access to user**.

### Select the destination folder permissions

Select one of the following options to set up destination folder permissions.

#### Option 1: Configure read and write access

To send scanned documents to a folder configured for read and write access, complete the following steps.



---


**NOTE:** **Send only to folders with read and write access** supports folder verification and job notification.

---

1. If it is not already selected, select **Send only to folders with read and write access**.

2. To require the printer to verify folder access before starting a scan job, select **Verify folder access prior to job start**.

---

 **NOTE:** Scan jobs can complete more quickly if **Verify folder access prior to job start** is not selected; however, if the folder is unavailable, the scan job will fail.


---


3. Click **Next**.

### Option 2: Configure write access only

To send scanned documents to a folder configured for write access only, complete the following steps.

---

 **NOTE:** **Allow sending to folders with write access only** does not support folder verification or job notification.

 **NOTE:** If this option is selected, the printer cannot increment the scan filename. It sends the same filename for all scans.

Select a time-related filename prefix or suffix for the scan filename, so that each scan is saved as a unique file, and does not overwrite a previous file. This filename is determined by the information in the **File Settings** dialog in the Quick Set Wizard.

---

1. Select **Allow sending to folders with write access only**.
2. Click **Next**.

### Dialog three: Notification Settings

Use the **Notification Settings** dialog to configure when notifications will be sent.

- On the **Notification Settings** dialog, complete one of the following tasks:
  - Option one: **Do not notify**.
    - a. Select **Do not notify**.
    - b. To prompt the user to review their notification settings, select **Prompt user prior to job start**, and then click **Next**.
  - Option two: **Notify when job completes**.
    - a. Select **Notify when job completes**.
    - b. Select the method for delivering the notification from the **Method Used to Deliver Notification** list.

If the method of notification selected is **Email**, type the email address in the **Notification Email Address** field.
    - c. To include a thumbnail of the first scanned page in the notification, select **Include Thumbnail**.
    - d. To prompt the user to review their notification settings, select **Prompt user prior to job start**, and then click **Next**.
  - Option three: **Notify only if job fails**.
    - a. Select **Notify only if job fails**.

- b. Select the method for delivering the notification from the **Method Used to Deliver Notification** list.  
If the method of notification selected is **Email**, type the email address in the **Notification Email Address** field.
- c. To include a thumbnail of the first scanned page in the notification, select **Include Thumbnail**.
- d. To prompt the user to review their notification settings, select **Prompt user prior to job start**, and then click **Next**.

#### Dialog four: Scan Settings

Complete the scan settings as follows.

On the **Scan Settings** dialog, set the default scanning preferences for the Quick Set, and then click **Next**.

**Table 6-31 Scan settings**

Feature	Description
<b>Original Size</b>	Select the page size of the original document.
<b>Original Sides</b>	Select whether the original document is single-sided or double-sided.
<b>Optimize Text/Picture</b>	Select to optimize for the output of a particular type of content.
<b>Content Orientation</b>	Select the way the content of the original document is placed on the page: <b>Portrait</b> or <b>Landscape</b> .
<b>Background Cleanup</b>	Select a value to remove faint images from the background or to remove a light background color.
<b>Darkness</b>	Select a value to adjust the darkness of the file.
<b>Contrast</b>	Select a value to adjust the contrast of the file.
<b>Sharpness</b>	Select a value to adjust the sharpness of the file.
<b>Image Preview</b>	Select whether to require or make optional a displayed preview of the job or to disable a preview.
<b>Cropping Options</b>	Select whether or not to allow a job to be cropped and the type of cropping option.
<b>Erase Edges</b>	Select this setting to specify the width of edge margins to be erased, in either inches or millimeters, for the front side and back side of a job.

#### Dialog five: File Settings

Complete the file settings as follows.

On the **File Settings** dialog, set the default file settings for the Quick Set, and then click **Next**.

**Table 6-32 File settings**

Feature	Description
<b>File Name Prefix</b>	Set the default file name prefix used for files saved to a network folder.
<b>File Name</b>	Default file name for the file to be saved. Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>File Name Suffix</b>	Set the default file name suffix used for files saved to a network folder.

**Table 6-32 File settings (continued)**

Feature	Description
<b>File Name Preview</b>	Enter a file name, and then click the <b>Update Preview</b> button.
<b>File Numbering Format</b>	Select a file name format for when the job is divided into multiple files.
<b>Add numbering when job has just one file (ex. _1-1)</b>	Select this setting to add numbering to a file name when the job is only one file instead of multiple files.
<b>File Type</b>	Select the file format for the saved file.  Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>High Compression (smaller file)</b>	Select this setting to compress the scanned file, which reduces the file size. However, the scanning process for a High compression file might take longer than for a Normal compression file.
<b>PDF encryption</b>	If the file type is PDF, then this option encrypts the output PDF file. A password must be specified as part of the encryption. The same password must be used to open the file. The user will be prompted to enter a password prior to scanning their job if one has not been set prior to starting the scan.
<b>Resolution</b>	Set the resolution for the file. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller.
<b>Quality and File Size</b>	Select the quality for the file. Higher-quality images require a larger file size than lower-quality images, and they take more time to send.
<b>Color/Black</b>	Specify whether copies are to be printed in color, black and gray, or black only.
<b>Suppress blank pages</b>	If the <b>Suppress blank pages</b> option is enabled, blank pages will be ignored.
<b>Metadata File Format</b>	Use the drop-down list to select the file format for metadata information.
<b>Create Multiple Files</b>	Select this setting to scan pages into separate files based on a predetermined maximum number of pages per file.

### Dialog six: Summary

On the **Summary** dialog, review the **Summary** dialog, and then click **Finish**.

### Step three: Complete the configuration

Use the following steps to complete Scan to Network Folder setup.

1. In the left navigation pane, click **Scan to Network Folder**.
2. On the Scan to Network Folder page, review the selected settings, and then click **Apply** to complete the setup.

## Set up Scan to SharePoint

Learn how to set up the Scan to SharePoint feature.



**NOTE:** The steps vary according to the type of control panel.

**Table 6-33** Control panels

Firmware Version	Control panels
FutureSmart 3	
FutureSmart 4	

## Video overview

View information about how to enable Scan to SharePoint.

 [View a video demonstration on how to enable Scan to SharePoint and create a Save to SharePoint Quick Set](#)

## FutureSmart 3

Use the following steps for FutureSmart 3.

### Introduction

Use Save to SharePoint® to scan documents directly to a Microsoft® SharePoint site. This feature eliminates the need to scan the documents to a network folder, USB flash drive, or email message, and then manually upload the files to the SharePoint site.

Save to SharePoint® supports all scanning options, including the ability to scan documents as images or use the OCR features to create text files or searchable PDFs.

The feature is disabled by default. Enable Save to SharePoint® in the HP Embedded Web Server (EWS).

### Before you begin

Before this procedure can be completed, the destination folder that the scanned files will be saved to must exist on the SharePoint site, and write access must be enabled to the destination folder. Save to SharePoint® is disabled by default.

### Enable Save to SharePoint and create a Save to SharePoint Quick Set

Use the following steps to enable the Save to SharePoint feature and create a Quick Set.

1. Using the top navigation tabs, click **Scan/Digital Send**.

2. In the left navigation pane, click **Save to SharePoint®**.



---

**NOTE:** **Quick Sets** are short-cut jobs that can be accessed on the printer Home screen or within the **Quick Sets** application.

---

3. Select **Enable Save to SharePoint®**, and then click **Apply**.
4. Click **Add** in the **Quick Sets** area to launch the **Quick Set Wizard**.
5. Enter a **Quick Set Title** (for example, “Scan to Sharepoint”) and a **Quick Set Description**.
6. Select a **Button Location** for the Quick Set to determine whether the Quick Set displays from the **Home** screen or within the **Quick Sets** area on the product control panel.
7. Select a **Quick Set Start Option** to determine what occurs after selecting a Quick Set on the product control panel, and then click the **Next** button.
8. Use the following steps to add the path to the SharePoint folder.
  - a. Click **Add** on the **SharePoint® Destination Settings** page to open the **Add SharePoint® Path** page.
  - b. Open another browser window, navigate to the SharePoint folder to use, and then copy the folder path for the SharePoint folder from that browser window.
  - c. Paste the SharePoint folder path into the **SharePoint® Path:** field.
  - d. By default, the printer overwrites an existing file that has the same file name as the new file. Clear **Overwrite existing files** so that a new file with the same name as an existing file is given an updated time/date stamp.
  - e. Select an option from the **Authentication Settings** drop-down menu. Select whether it is necessary to sign in to the SharePoint site with credentials, or store the credentials within the Quick Set.



---

**NOTE:** **Use credentials of user to connect after Sign In at the control panel** is selected in the **Authentication Settings** drop-down menu, the logged-in user must have permissions to write to the specified SharePoint site.



**NOTE:** For security purposes, the printer does not display credentials entered in the Quick Set Wizard.

---

- f. Click **OK** to complete the SharePoint path setup and navigate back to the **SharePoint Destination Settings** page.
9. Select **Verify folder access prior to job start** to ensure that the SharePoint folder specified as the destination folder is accessible each time the Quick Set is used. If this option is not selected, jobs can be saved to the SharePoint folder more quickly. However, if this option is not selected *and* the SharePoint folder is inaccessible the job will fail.
  10. Click **Next**.
  11. Set a **Condition on Which to Notify:** on the **Notification Settings** page. This setting configures the Quick Set to either not notify, or to send email messages or print a summary page if a job either


completes successfully or fails. Select one of the following options from the **Condition on Which to Notify**: drop-down menu:

- Select **Do not notify** for the Quick Set to not perform any notification action when a job completes successfully or fails.
- Select **Notify when job completes** for the Quick Set to send a notification when a job completes successfully.
- Select **Notify only if job fails** for the Quick Set to send a notification only when a job fails.

Selecting either **Notify when job completes** or **Notify only if job fails** requires the **Method Used to Deliver Notification**: to be set. Select from the following options:

- **E-mail**: Use this option to send an email when the selected notification condition occurs. This option requires a valid email address in the **Notification E-mail Address**: field.


---

 **NOTE:** To use the email notification feature, first configure the email feature on the printer.

---

- **Print**: Use this option to print the notification when the selected notification condition occurs.

---

 **NOTE:** Select **Include Thumbnail** for either notification option to include a thumbnail image of the first page of the scanned page of the job.

---


12. Click **Next**.
13. Select options from the **Scan Settings** page, and then click **Next**. For more information, see [Table 6-34 Scan settings for Save to SharePoint on page 165](#).
14. Select options from the **File Settings** page, and then click **Next**. For more information, see [Table 6-35 File settings for Save to SharePoint on page 165](#).
15. Review the summary of settings, and then click the **Finish** button to save the Quick Set, or click the **Previous** button to edit the settings.

### Scan and save a file directly to a Microsoft SharePoint site


Use the following steps to scan a document directly to a SharePoint site.

1. Place the document face-down on the scanner glass, or place it face-up in the document feeder and adjust the paper guides to fit the size of the document.
2. From the Home screen on the printer control panel, touch **Save to SharePoint®**.

---

 **NOTE:** In this step, the Home screen will display the title that the user named the quick set. In this step, **Save to SharePoint®** is used as an example.




---


 **NOTE:** It might be necessary to sign in to the printer to use this feature.

---

3. Select one of the items in the **Quick Sets** list.
4. Touch the **File Name**: text field to open a keyboard, and then type the name for the file using either the on-screen keyboard or the physical keyboard. Touch **OK**.
5. If necessary, touch the **File Type** drop-down menu to select a different output file format.

6. Touch **More Options** to view and configure settings for the document.

 **NOTE:** Preview the image at any time by touching the Preview button  in the upper-right corner of the screen. For more information about this feature, touch the Help button  on the preview screen.

7. Touch the Start button  to save the file.

### Quick set scan settings and options for Save to SharePoint

The following tables list the settings and options available in the Quick Set Wizard when adding, editing, or copying a Save to SharePoint® Quick Set.

**Table 6-34 Scan settings for Save to SharePoint**

Feature	Description
<b>Original Size</b>	Select the page size of the original document.
<b>Original Sides</b>	Select whether the original document is single-sided or double-sided.
<b>Optimize Text/Picture</b>	Select to optimize for the output of a particular type of content, or select <b>Manually adjust</b> .
<b>Optimize For</b>	This setting is only available when <b>Optimize Text/Picture</b> is set to <b>Manually adjust</b> . Select a manual-adjust value.
<b>Content Orientation</b>	Select the way the content of the original document is placed on the page: <b>Portrait</b> or <b>Landscape</b> , or select <b>Automatically detect</b> .
<b>2-Sided Format</b>	This setting is not available when <b>Content Orientation</b> is set to <b>Automatically detect</b> . Select to describe the binding of the page to specify if the back side of the page is upside down or right side up.
<b>Background Cleanup</b>	Select a value to remove faint images from the background or to remove a light background color.
<b>Darkness</b>	Select a value to adjust the darkness of the file.
<b>Contrast</b>	Select a value to adjust the contrast of the file.
<b>Sharpness</b>	Select a value to adjust the sharpness of the file.
<b>Image Preview</b>	Select whether to require or make optional a displayed preview of the job or to disable a preview.
<b>Cropping Options</b>	Select whether or not to allow a job to be cropped and the type of cropping option.
<b>Job Build</b>	Select this setting to combine several sets of original documents into one email attachment. Also, use this setting to scan an original document that has more pages than the document feeder can accommodate at one time.
<b>Automatic Tone</b>	Select this setting to set to automatic the <b>Darkness</b> , <b>Contrast</b> , and <b>Background cleanup</b> settings, which then makes these settings unavailable on this page.
<b>Multi-feed Detection</b>	Select this setting to enable detection of multi-feed jobs.
<b>Erase Edges</b>	Select this setting to specify the width of edge margins to be erased, in either inches or millimeters, for the front side and back side of a job.

**Table 6-35 File settings for Save to SharePoint**

Feature	Description
<b>File Name Prefix</b>	Set the default file name prefix used for files saved to a network folder.

**Table 6-35 File settings for Save to SharePoint (continued)**

Feature	Description
<b>Default File Name</b>	Default file name for the file to be saved.  Select the <b>User editable</b> check box to make this setting editable at the product control panel.
<b>File Name Suffix</b>	Set the default file name suffix used for files saved to a network folder.  Duplicate filename suffix default [filename]_YYYYMMDDT
<b>File Number Format</b>	Select a file name format for when the job is divided into multiple files.
<b>Default File Type</b>	Select the file format for the saved file.  Select the <b>User editable</b> check box to make this setting editable at the product control panel.
<b>File Name Preview</b>	Enter a file name, and then click the <b>Update Preview</b> button.
<b>Default Color Preference</b>	Select whether the file is in black & white or in color.
<b>Default Output Quality</b>	Select the quality for the file. Higher-quality images require a larger file size than lower-quality images, and they take more time to send.
<b>Default Resolution</b>	Set the resolution for the file. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller.
<b>Compression</b>	Specify if the file uses Normal or High compression when saving a scanned document as a PDF or XPS file. If compression is set to High, the scanned file is smaller, but the scanning process might take longer than Normal compression.
<b>Black TIFF Compression</b>	Select the black TIFF compression algorithm to be used to compress the generated TIFF file.
<b>Color/Grayscale TIFF Compression</b>	Select the color/grayscale TIFF compression algorithm to be used to compress the generated TIFF file.
<b>PDF encryption</b>	If the file type is PDF, then this option encrypts the output PDF file. A password must be specified as part of the encryption. The same password must be used to open the file. The user will be prompted to enter a password prior to scanning their job if one has not been set prior to pressing start.
<b>Disable OCR file types</b>	Select this setting to prevent OCR file types from being available from the product control panel.
<b>Enable Blank Page Suppression</b>	If the <b>Enable Blank Page Suppression</b> option is enabled, blank pages will be ignored.

## FutureSmart 4

Use the following steps for FutureSmart 4.

### Introduction

Set up the Scan to SharePoint feature, and then scan documents directly to a SharePoint site.

Scan to SharePoint supports all scanning options, including the ability to scan documents as images or use the OCR features to create text files or searchable PDFs.

The feature is disabled by default. Enable **Save to Sharepoint** in the HP Embedded Web Server (EWS).

## Before you begin

Before this procedure can be completed, the destination folder that the scanned files will be saved to must exist on the SharePoint site, and write access must be enabled to the destination folder. Scan to SharePoint is disabled by default.

### Enable Scan to SharePoint and create a Scan to SharePoint Quick Set

Use the following steps to enable the Save to SharePoint feature and create a Quick Set.

1. Using the top navigation tabs, click **Scan/Digital Send**.
2. In the left navigation pane, click **Scan to SharePoint®**.



---

**NOTE:** Quick Sets are short-cut jobs that can be accessed on the printer Home screen or within the **Quick Sets** application.

---

3. Select the **Enable Scan to SharePoint®** check box, and then click **Add...**
4. Enter a **Quick Set Name** (for example, "Scan to SharePoint") and a **Quick Set Description**.
5. Select a **Quick Set Start Option** to determine what occurs after selecting a Quick Set on the printer control panel, and then click the **Next** button.
6. Use the following steps to add the path to the SharePoint folder.
  - a. Click **Add** on the **SharePoint® Destination** page to open the **Add SharePoint® Path** page.
  - b. Open another browser window, navigate to the SharePoint folder to use, and then copy the folder path for the SharePoint folder from that browser window.
  - c. Paste the SharePoint folder path into the **SharePoint® Path:** field.
  - d. By default, the printer overwrites an existing file that has the same file name as the new file. Clear **Overwrite existing files** so that a new file with the same name as an existing file is given an updated time/date stamp.
  - e. Select an option from the **Authentication Settings** drop-down menu. Select whether it is necessary to sign in to the SharePoint site with credentials, or store the credentials within the Quick Set.



---

**NOTE:** If **Use credentials of user to connect after Sign In at the control panel** is selected in the **Authentication Settings** drop-down menu, the logged-in user must have permissions to write to the specified SharePoint site.

---



**NOTE:** For security purposes, the printer does not display credentials entered in the Quick Set Wizard.

---


- f. Click **OK** to complete the SharePoint path setup and navigate back to the **SharePoint Destination Settings** page.
7. Select **Verify folder access prior to job start** to ensure that the SharePoint folder specified as the destination folder is accessible each time the Quick Set is used. If this option is not selected, jobs can be saved to the SharePoint folder more quickly. However, if this option is not selected *and* the SharePoint folder is inaccessible the job will fail.
  8. Click **Next**.

9. Set a **Condition on Which to Notify**: on the **Notification** page. This setting configures the Quick Set to either not notify, or to send email messages or print a summary page if a job either completes successfully or fails. Select one of the following options from the **Condition on Which to Notify**: drop-down menu:
  - Select **Do not notify** for the Quick Set to not perform any notification action when a job completes successfully or fails.
  - Select **Notify when job completes** for the Quick Set to send a notification when a job completes successfully.
  - Select **Notify only if job fails** for the Quick Set to send a notification only when a job fails.

Selecting either **Notify when job completes** or **Notify only if job fails** requires the **Method Used to Deliver Notification**: to be set. Select from the following options:

- **Email**: Use this option to send an email when the selected notification condition occurs. This option requires a valid email address in the **Notification Email Address**: field.


---

 **NOTE:** To use the email notification feature, first configure the email feature on the printer.

---

- **Print**: Use this option to print the notification when the selected notification condition occurs.

---

 **NOTE:** Select **Include Thumbnail** for either notification option to include a thumbnail image of the first page of the scanned page of the job.

---

10. Click **Next**.
11. Select options from the **Scan Settings** page, and then click **Next**. For more information, see the table “Scan settings for Scan to SharePoint®.”
12. Select options from the **File Settings** page, and then click **Next**. For more information, see the table “File settings for Scan to SharePoint®.”
13. Review the summary of settings, and then click the **Finish** button to save the Quick Set, or click the **Previous** button to edit the settings.

### Quick Set scan settings and options for Scan to SharePoint

Review the settings and options available in the Quick Set Wizard when adding, editing, or copying a Scan to SharePoint Quick Set.

**Table 6-36** Scan settings for Scan to SharePoint

Feature	Description
<b>Original Size</b>	Select the page size of the original document.
<b>Original Sides</b>	Select whether the original document is single-sided or double-sided.
<b>Optimize Text/Picture</b>	Select to optimize for the output of a particular type of content.
<b>Content Orientation</b>	Select the way the content of the original document is placed on the page: <b>Portrait</b> or <b>Landscape</b> .
<b>Background Cleanup</b>	Select a value to remove faint images from the background or to remove a light background color.
<b>Darkness</b>	Select a value to adjust the darkness of the file.
<b>Contrast</b>	Select a value to adjust the contrast of the file.

**Table 6-36 Scan settings for Scan to SharePoint (continued)**

Feature	Description
<b>Sharpness</b>	Select a value to adjust the sharpness of the file.
<b>Image Preview</b>	Select whether to require or make optional a displayed preview of the job or to disable a preview.
<b>Cropping Options</b>	Select whether or not to allow a job to be cropped and the type of cropping option.
<b>Erase Edges</b>	Select this setting to specify the width of edge margins to be erased, in either inches or millimeters, for the front side and back side of a job.

**Table 6-37 File settings for Scan to SharePoint**

Feature	Description
<b>File Name Prefix</b>	Set the default file name prefix used for files to be saved.
<b>File Name</b>	Default file name for the file to be saved. Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>File Name Suffix</b>	Set the default file name suffix used for files to be saved. Duplicate filename suffix default [filename]_YYYYMMDDT
<b>File Name Preview</b>	Enter a file name, and then click the <b>Update Preview</b> button.
<b>File Numbering Format</b>	Select a file name format for when the job is divided into multiple files.
<b>Add numbering when job has just one file (ex. _1-1)</b>	Select this setting to add numbering to a file name when the job is only one file instead of multiple files.
<b>File Type</b>	Select the file format for the saved file. Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>High Compression (smaller file)</b>	Select this setting to compress the scanned file, which reduces the file size. However, the scanning process for a High compression file might take longer than for a Normal compression file.
<b>PDF encryption</b>	If the file type is PDF, then this option encrypts the output PDF file. A password must be specified as part of the encryption. The same password must be used to open the file. The user will be prompted to enter a password prior to scanning their job if one has not been set prior to starting the scan.
<b>Resolution</b>	Set the resolution for the file. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller.
<b>Quality and File Size</b>	Select the quality for the file. Higher-quality images require a larger file size than lower-quality images, and they take more time to send.
<b>Color/Black</b>	Specify whether copies are to be printed in color, black and gray, or black only
<b>Suppress blank pages</b>	If the <b>Suppress blank pages</b> option is enabled, blank pages will be ignored.
<b>Create Multiple Files</b>	Select this setting to scan pages into separate files based on a predetermined maximum number of pages per file.

## Set up Scan to USB Drive

Learn how to set up the Scan to USB drive feature.

The printer has a feature that enables it to scan a document and save it to a USB flash drive. The feature is not available until it has been configured through the HP Embedded Web Server (EWS).

## Introduction

The printer has a feature that enables it to scan a document and save it to a USB flash drive. The feature is not available until it has been configured through the HP Embedded Web Server (EWS).

## FutureSmart 3

Use the following steps for FutureSmart 3.

### Step one: Enable Save to USB

Use the following steps to enable Save to USB.

1. Select the **Security** tab.
2. Scroll to **Hardware Ports** and make sure that **Enable Host USB plug and play** is enabled.
3. Select the **Scan/Digital Send** tab.
4. In the left navigation pane, click **Save to USB Setup**.
5. Select the **Enable Save to USB** check box.
6. Click **Apply** at the bottom of the page.

### Step two: Create a Save to USB Quick Set (optional)

Use the following steps to create a Save to USB Quick Set.



---

**NOTE:** Quick Sets are short-cut jobs that can be accessed on the printer Home screen or within the Quick Sets application.

---

1. Navigate to the **Quick Sets Setup** area of the EWS using the following steps:
  - a. Using the top navigation tabs, click **General**.
  - b. In the left navigation pane, click **Quick Sets Setup**.
2. Click **Add**. The **Quick Set Wizard** opens.



---

**NOTE:** Click **Cancel** on any page of the **Quick Set Wizard** to cancel the current changes, exit the **Quick Set Wizard**, and return to the **Quick Sets Setup** page.

---

3. Select **Save to USB** for the **Quick Set Type**, and then click **Next**.
4. Enter a title for the Quick Set in the **Quick Set Title** (required) field.
5. Select the location for the Quick Set to appear on the printer from the **Button Location** drop-down list. This setting determines whether the Quick Set displays on the **Home** screen or within the **Quick Sets** area on the printer control panel.
6. Enter a description of the Quick Set in the **Quick Set Description** (required) field.
7. Select a **Quick Set Start Option** to determine what occurs after selecting a Quick Set on the printer control panel, and then click **Next**.

8. Select a default location where scanned files are saved on USB storage devices inserted into the USB port on the control panel, and then click **Next**. The default location options are:

- **Save at root directory of the USB storage device**
- **Create or place in this folder on the USB Storage Device** – The path to the folder on the USB storage device must be specified when using this file location option. A backslash \ must be used to separate folder\subfolder names in the path.

9. Select an option from the **Condition on Which to Notify**: drop-down list, and then click **Next**.

This setting determines if, or how, users are notified when a Save To USB Quick Set job completes or fails. The options for the **Condition on Which to Notify**: setting are:

- **Do not notify**
- **Notify when job completes**
- **Notify only if job fails**

10. Choose the **Scan Settings** for the Quick Set, and then click **Next**.



**NOTE:** For more information on the available scan settings, see [Default scan settings for Save to USB setup on page 171](#).

11. Choose the **File Settings** for the Quick Set, and then click **Next**.



**NOTE:** For more information on the available file settings, see [Default file settings for Save to USB Setup on page 172](#).

12. Review the summary of settings, and then click **Finish** to save the Quick Set, or click **Previous** to edit the settings.

### Default scan settings for Save to USB setup

The following table lists the default settings.

**Table 6-38** Scan settings for Save to USB Setup:

Option	Description
<b>Default File Type</b>	Select the default file type that the for the scanned document: <ul style="list-style-type: none"><li>• PDF</li><li>• JPEG</li><li>• TIFF</li><li>• MTIFF</li><li>• XPS</li><li>• PDF/A</li><li>• Text (OCR)</li><li>• Unicode Text (OCR)</li><li>• RTF (OCR)</li><li>• Searchable PDF (OCR)</li><li>• Searchable PDF/A (OCR)</li><li>• HTML (OCR)</li><li>• CSV (OCR)</li></ul>
<b>Default Color Preferences</b>	Select the default color setting for the scanned document: <ul style="list-style-type: none"><li>• Color</li><li>• Black</li><li>• Black/Gray</li><li>• Automatically detect</li></ul>
<b>Default Output Quality</b>	Select the default output quality for the scanned document: <ul style="list-style-type: none"><li>• Low (small file)</li><li>• Medium</li><li>• High (large file)</li></ul>
<b>Default Resolution</b>	Select the default scan resolution for the scanned document: <ul style="list-style-type: none"><li>• 75 dpi</li><li>• 150 dpi</li><li>• 200 dpi</li><li>• 300 dpi</li><li>• 400 dpi</li><li>• 600 dpi</li></ul>

### Default file settings for Save to USB Setup

Review the default file settings for Save to USB Setup.

**Table 6-39** File settings for Save to USB Setup:

Feature	Description
<b>File Name Prefix</b>	Set the default file name prefix used for files saved to a network folder.
<b>Default File Name</b>	Default file name for the file to be saved.  Select the <b>User editable</b> check box to make this setting editable at the product control panel.
<b>File Name Suffix</b>	Set the default file name suffix used for files saved to a network folder.  Duplicate filename suffix default [filename]_YYYYMMDDT
<b>File Number Format</b>	Select a file name format for when the job is divided into multiple files.
<b>Default File Type</b>	Select the file format for the saved file.  Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>File Name Preview</b>	Enter a file name, and then click the <b>Update Preview</b> button.
<b>Default Color Preference</b>	Select whether the file is in black & white or in color.
<b>Default Output Quality</b>	Select the quality for the file. Higher-quality images require a larger file size than lower-quality images, and they take more time to send.
<b>Default Resolution</b>	Set the resolution for the file. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller.
<b>Compression</b>	Specify if the file uses Normal or High compression when saving a scanned document as a PDF or XPS file. If compression is set to High, the scanned file is smaller, but the scanning process might take longer than Normal compression.
<b>Black TIFF Compression</b>	Select the black TIFF compression algorithm to be used to compress the generated TIFF file.
<b>Color/Grayscale TIFF Compression</b>	Select the color/grayscale TIFF compression algorithm to be used to compress the generated TIFF file.
<b>PDF encryption</b>	If the file type is PDF, then this option encrypts the output PDF file. A password must be specified as part of the encryption. The same password must be used to open the file. The user will be prompted to enter a password prior to scanning their job if one has not been set prior to pressing start.
<b>Disable OCR file types</b>	Select this setting to prevent OCR file types from being available from the printer control panel.
<b>Enable Blank Page Suppression</b>	If the <b>Enable Blank Page Suppression</b> option is enabled, blank pages will be ignored.

## FutureSmart 4

Use the following steps for FutureSmart 4.

### Step one: Enable Scan to USB Drive

Use the following steps to enable Scan to USB Drive.

1. Select the **Security** tab.
2. Scroll to **Hardware Ports** and make sure that **Enable Host USB plug and play** is enabled.
3. Select the **Scan/Digital Send** tab.
4. Select the **Enable Scan to USB Drive** check box.

5. Click **Apply** at the bottom of the page.



**NOTE:** Most devices ship with Hard disk drives (HDDs) already installed. In some cases, additional storage devices can be added via USB. Verify whether the Scan to USB Drive feature needs to be expanded to USB and Hard drive

---

### Step two: Configure the Quick Sets (optional)

Quick Sets are short-cut jobs that can be accessed on the printer Home screen or within the Quick Sets application.

1. In the **Scan to USB Drive** area of the left navigation pane, click **Quick Sets**.
2. Select one of the following options:
  - Select an existing Quick Set under Quick Sets Application in the table.
  - OR-
  - Click **Add** to start the Quick Set Wizard.
3. If you selected **Add**, the **Quick Sets Setup** page opens. Complete the following information, and then click **Next**.
  - **Quick Set Name:** Enter a title for the new Quick Set.
  - **Quick Set Description:** Enter a description of the Quick Set.
  - **Quick Set Start Option:** To set how the Quick Set starts, click either **Enter application, then user presses Start** or **Start instantly when selected from the Home Screen**.
4. Select a default location where scanned files are saved on USB storage devices inserted into the USB port on the control panel, and then click **Next**. The default location options are:
  - **Save at root directory of the USB storage device**
  - **Create or place in this folder on the USB Storage Device** – The path to the folder on the USB storage device must be specified when using this file location option. A backslash \ must be used to separate folder\subfolder names in the path.
5. Select an option from the **Condition on Which to Notify:** drop-down list, and then click **Next**.

This setting determines if, or how, users are notified when a Scan To USB Drive Quick Set job completes or fails. The options for the **Condition on Which to Notify:** setting are:

  - **Do not notify**
  - **Notify when job completes**
  - **Notify only if job fails**
6. Choose the **Scan Settings** for the Quick Set, and then click **Next**.



**NOTE:** For more information on the available scan settings, see “Default scan settings for Scan to USB Drive setup.”

---

7. Choose the **File Settings** for the Quick Set, and then click **Next**.



**NOTE:** For more information on the available file settings, see “Default file settings for Scan to USB Drive setup”

8. Review the summary of settings, and then click **Finish** to save the Quick Set, or click **Previous** to edit the settings.

### Default scan settings for Scan to USB Drive setup

Review the default settings for Scan to USB Drive setup.

**Table 6-40** Scan settings for Scan to USB Drive setup

Feature	Description
<b>Original Size</b>	Select the page size of the original document.
<b>Original Sides</b>	Select whether the original document is single-sided or double-sided.
<b>Optimize Text/Picture</b>	Select to optimize for the output of a particular type of content.
<b>Content Orientation</b>	Select the way the content of the original document is placed on the page: <b>Portrait</b> or <b>Landscape</b> .
<b>Background Cleanup</b>	Select a value to remove faint images from the background or to remove a light background color.
<b>Darkness</b>	Select a value to adjust the darkness of the file.
<b>Contrast</b>	Select a value to adjust the contrast of the file.
<b>Sharpness</b>	Select a value to adjust the sharpness of the file.
<b>Image Preview</b>	Select whether to require or make optional a displayed preview of the job or to disable a preview.
<b>Cropping Options</b>	Select whether or not to allow a job to be cropped and the type of cropping option.
<b>Erase Edges</b>	Select this setting to specify the width of edge margins to be erased, in either inches or millimeters, for the front side and back side of a job.

### Default file settings for Save to USB setup

Review the options for Save to USB setup.

**Table 6-41** File settings for Save to USB setup

Option name	Description
<b>File Name Prefix</b>	Set the default file name prefix used for files saved to a network folder.
<b>File Name</b>	Default file name for the file to be saved.  Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>File Name Suffix</b>	Set the default file name suffix used for files saved to a network folder.  Duplicate filename suffix default [filename]_YYYYMMDDT
<b>File Name Preview</b>	Enter a file name, and then click the <b>Update Preview</b> button.
<b>File Numbering Format</b>	Select a file name format for when the job is divided into multiple files.
<b>Add numbering when job has just one file (ex. _1-1)</b>	Select this setting to add numbering to a file name when the job is only one file instead of multiple files.

**Table 6-41** File settings for Save to USB setup (continued)

Option name	Description
<b>File Type</b>	Select the file format for the saved file.  Select the <b>User editable</b> check box to make this setting editable at the printer control panel.
<b>High Compression (smaller file)</b>	Select this setting to compress the scanned file, which reduces the file size. However, the scanning process for a High compression file might take longer than for a Normal compression file.
<b>PDF encryption</b>	If the file type is PDF, then this option encrypts the output PDF file. A password must be specified as part of the encryption. The same password must be used to open the file. The user will be prompted to enter a password prior to scanning their job if one has not been set prior to starting the scan.
<b>Resolution</b>	Set the resolution for the file. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller.
<b>Quality and File Size</b>	Select the quality for the file. Higher-quality images require a larger file size than lower-quality images, and they take more time to send.
<b>Color/Black</b>	Specify whether copies are to be printed in color, black and gray, or black only.
<b>Suppress blank pages</b>	If the <b>Suppress blank pages</b> option is enabled, blank pages will be ignored.
<b>Create Multiple Files</b>	Select this setting to scan pages into separate files based on a predetermined maximum number of pages per file.

## Set up and configure the Address Book

Learn how to set up and configure the Address Book.

### Introduction

An address book is a stored list of frequently-used contacts for quick selection when sending a document from the printer control panel. Use the **Address Book** page to configure and enable the following printer features:

- Configure search parameters
- Add individual or group contacts
- Edit existing contacts

### Set up the network contacts

Use the **Network Contacts Setup** area of the **Address Book** page to enable network contacts and to specify the search methods for locating network contacts.



**NOTE:** Perform this step before setting up stored contacts on the printer.

### Set the search method

Use the following steps to set the search method for network contacts.

1. Using the top navigation tabs, click **Scan/Digital Send**.
2. In the left navigation pane, click **Address Book** or **Contacts**.


3. Select a search method:
  - **Quick Search** (Find matches beginning with the search string.)
  - **Detailed Search** (Find matches containing the search string.)

### Enable personal contacts (optional)

Use the following steps to enable personal contacts.

Access individual users' personal contacts from their Microsoft Exchange Server personal contacts lists. These addresses are available when the user signs in at the printer control panel using Windows, and then selects the [Personal Contacts](#) address book view.

---

 **NOTE:** If any problems are encountered when importing address books from newer Microsoft Exchange servers, contact HP support for help.

---

1. Using the top navigation tabs, click **Scan/Digital Send**.
2. In the left navigation pane, click **Address Book** or **Contacts**.
3. Select the **Enable Personal Contacts (when users sign in to Windows at the device)** check box.
4. Click the **Test Exchange Server** button to test the connection with the Microsoft Exchange Server.
  - a. **Windows Domain:** Enter a Windows domain name.
  - b. **User name:** Enter a username
  - c. **Password:** Enter a password
  - d. **Test:** Enter at least three letters of a contact name, and then click the **Test** button
5. Click **Apply** to save the settings.


### Enable network contacts (optional)

Learn how to enable network contacts.

#### Introduction

The Lightweight Directory Access Protocol (LDAP) feature provides access to a network address book. Use the following sections to set up the Network Contacts feature.

---

 **NOTE:** The printer must have the correct firmware version to be compatible with the LDAP feature.

---

#### Before you begin

Administrators need the following information before beginning the configuration process.

#### Network contacts setup

- Server authentication requirements
- Path to start search (BaseDN, Search Root) (e.g., o=mycompany.com)
- Attributes for matching the name entered (e.g., cn or samAccountName), retrieving the email address (e.g., mail), and how the name will be displayed on the control panel (e.g., displayName)

## Default SMTP Configuration

- SMTP server (e.g., smtp.mycompany.com)
- SMTP port (e.g., 25, 587, 465)
- Secure connection requirements (e.g., Always use secure connection (SSL/TLS))
- SMTP server authentication requirements for outgoing email messages, including the user name and password used for authentication, if applicable

## Obtain contacts from an LDAP server

Obtain addresses from a LDAP server so they are available to users at the printer control panel. These addresses are available when the user selects the [All Contacts](#) address book view.

1. Using the top navigation tabs, click **Scan/Digital Send**.
2. In the left navigation pane, click **Address Book** or **Contacts**.
3. Select the **Enable Network Contacts (use LDAP server)** check box.
4. Click **Add**.
5. In the **LDAP Server Address** field, enter the IP address for the LDAP server, or if the name of a LDAP server to use is unknown, click **Auto Find** to obtain a list of available LDAP servers. Select the LDAP server to use, and then click **OK**.



**NOTE:** If the LDAP server you want to use is not in this list, contact your administrator and obtain the IP address and the attribute codes.

6. To enable a secure (SSL) connection, select the **Use a secure connection (SSL)** check box.
7. If the LDAP server requires authentication, select the appropriate authentication type for the LDAP server in the **Server Authentication Requirements** area. Depending on the type of authentication, some of the other fields in this area might not be available, because they are not required. Enter the information for the required fields. Make sure to use the exact names that match the settings for the LDAP server.



**NOTE:** For individual users who sign in using Windows credentials, select the option to use those credentials for the LDAP server authentication.


**Table 6-42** Types of authentication for the printer to communicate with the LDAP server

Authentication type	Description
Server does not require authentication	The server does not require user credentials to access the LDAP database. The option to use the MFP user credentials is unavailable.

**Table 6-42** Types of authentication for the printer to communicate with the LDAP server (continued)

Authentication type	Description
Server requires authentication	Use credentials of user to connect after Sign on at the printer control panel.  <i>Windows Negotiated (SPNEGO):</i>  The server requires user credentials to access the LDAP database, and it encrypts passwords and credentials that are sent across the network.  The domain field and the option to use the MFP user credentials are enabled.  <i>Simple Credentials:</i>  The server requires user credentials to access the LDAP database, but the password is not encrypted when it is sent across the network.  The username and password fields are enabled.

8. In the **LDAP Database Search Settings** area, click **Auto Find** to browse for the point to begin searching the database.

 **NOTE:** By default, Active Directory attributes are used. If these attributes do not work, try the **Use Custom Attributes** option, and then click the **Auto Find** button to find the correct attributes.

9. Select the appropriate **Source for Attribute Names** option. The attributes fields should be populated automatically.
10. In the **Test for LDAP Retrieval** area, test the LDAP retrieval by entering part of an attribute value, such as part of the recipient's name, and then clicking **Test**. Use at least three characters.

## Set up the contacts stored on the printer

Use the **Import** button to load a large list of frequently-used contacts on to the printer all at once, rather than adding them one at a time.

To add contacts to more than one printer, it is best to add them on one printer, make any edits to the list, and then use the **Import** and **Export All** buttons to transfer the addresses to other printers.

### Address Book tasks

Learn how to perform Address Book tasks.

Add a contact or group by clicking **Add Contact** or **Add Group**, which opens the **Add Contact** or **Add Group** page.

### Add a contact

Use the following steps to add a contact.

1. Click **Add Contact**. The **Add Contact** page displays.
2. Complete the following fields:
  - **Contact Name** or **Display Name**: Enter a contact name (required)
  - **First Name**: Enter a first name (optional)
  - **Last Name**: Enter a last name (optional)
  - **Phone Number**: Enter a phone number (optional)

- **Fax Number:** Enter the fax number (may be required)
- **E-mail Address:** Enter an e-mail address (may be required)



**NOTE:** An e-mail address, fax number, or network folder must be entered for a contact.

3. If using a network folder for scan/digital send, click the **Network Folder** check box and set up one of the following folder options: is selected and, add the UNC path to the folder in the **UNC Folder Path** field using the following form: \\host\share.
  - **Standard shared folder**
  - **FTP folder**
4. Click the **OK** button to save the new contact to the printer.

### Add a group

Use the following steps to add a group.

1. Click **Add Group**. The **Add Group** page displays.
2. Add an e-mail group:
  - a. Select **Add Email Group**.
  - b. Enter a name for the new group in the **Group Name** or **Display Name** field.
  - c. To add a member to the group, either enter their email address in the **Add Member** field, or add them from an address book.
3. Add a folder group:
  - a. Select **Add Folder Group**.
  - b. Enter a name for the new group in the **Group Name** field.
  - c. Add the folders from an address book.
4. After adding all of the members or groups for the group, click the **OK** button to save the group.

### Edit a contact or group

Use the following steps to edit a contact or group.

1. Select the contact or group to edit. Enter a name into the search field to find a specific contact.
2. Click the **Edit** button.
3. Make the necessary changes to the contact or group.
4. Click the **OK** button to save your edits.

### Delete a contact or group

Use the following steps to delete a contact or group.

1. Select the contact or group to delete. Enter a name into the search field to find a specific contact or group.
2. Click the **Delete** button.

3. In the page that displays you are prompted to confirm the deletion of the selected contact or group. There is no way to recover a contact or group once it has been deleted. Click **OK** to confirm your selection. The contact or group is deleted.

## Import or export an address book

Use this page to import and export address book and user information to and from the printer.

When data is imported to the printer, new contacts, fax speed dials, or user accounts are added, so that this information can be accessed on this printer. This can help make it easy to create initial lists or to keep the HP printer current with changes to the information.

The export of records saves email, fax, or user records from the printer into a file on a computer. Use this file as a data backup, or use it to import the records onto another HP printer.

## Import an address book

To import address-book information, first create a file with a comma-separated value (CSV) format. The CSV format is a common data format that is often used to transfer data between database programs or printers.

This file can be created using either a spreadsheet program such as Microsoft Excel, or a text program such as Microsoft Notepad. After creating the file, be sure to save or export it as a .CSV file type. Another option is to create a data file by exporting contacts from Microsoft Outlook or another email client and saving it as a .CSV file.



---

**NOTE:** To help with creating or importing a .CSV file, try exporting an existing address book to use as a template.

---

## Import an address book

Use the following steps to import an address book.

1. Create a data file containing a header row with the columns that are required for your data. The following columns can be used:

- name (or "first name" and "last name")
- address (or "emailaddress", "email", "email address", "e-mail", or "e-mail address")
- dlname
- faxnumber (or "business fax", "home fax", or "other fax")
- speeddial
- code
- pin

The header row is simply the first row of the spreadsheet or file.

2. After the header row, add rows containing each address book or user record. See the *Required data and record limits* section below to find out which columns are required for each type of record.

Blank columns are allowed. If creating a text import file, insert a comma for each blank field.

If the data in the field contains a comma, a carriage return (\r), or line feed (\n) character, the data in that field must be surrounded by quotes, for example,

"Smith, Joe"

Fields that contain double-quotes must be surrounded by double-quotes. Any individual double-quotes must be represented by a pair of double-quotes.

If using Excel to create the import file, do not enter quotes, because Excel inserts them automatically when the file is converted to a .CSV file.

**3.** Save the import file.

If created in Excel, choose **Save As** from the **File** menu, and then select .CSV (comma delimited) (\*.csv) in the **Save as type** drop-down box.

If created as a text file, choose **Save As** from the **File** menu, and then enter .csv in place of the .txt file extension.

**4.** To import the source file into the printer, click the **Import** button under **Contacts Stored on the Device**, and then click the **Browse...** button to browse to the source data file. If the file was encrypted, enter the encryption key.

**5.** Click **Import** to import the data file into the printer. The import process will take approximately 1 minute for each 1,000 records, depending on the network speed.

When the import process is complete, a message displays indicating how many records were successfully imported and whether there were any import errors.

### Required data and record limits

Review the data and record limits for each record type.

**Table 6-43** Required Data and Record Limits

Record type	Required data	Maximum field length
<b>E-mail address</b>	name (or "first name" and "last name")	64 unicode characters
	address <sup>1</sup>	256 unicode characters
<b>User record</b>	name	245 characters
	pin	4-8 digits
	address <sup>1</sup>	255 characters
<b>E-mail distribution list</b>	name	64 unicode characters
	address <sup>1</sup>	256 unicode characters
	dlname	64 unicode characters <sup>2</sup>
<b>Fax number</b>	name	64 unicode characters
	faxnumber <sup>1</sup>	80 unicode characters

**Table 6-43 Required Data and Record Limits (continued)**

Record type	Required data	Maximum field length
Fax speed-dial	faxnumber <sup>1</sup>	80 unicode characters
	speeddial <sup>2</sup>	64 unicode characters
	code <sup>2</sup>	2 digits
		A maximum of 100 speed-dials, each with a maximum of 100 entries

<sup>1</sup> The "address" field can also be called "emailaddress", "email", "email address", "e-mail", or "e-mail address". The "faxnumber" field can also be called "business fax", "home fax", or "other fax".

<sup>2</sup> The "speeddial" field contains the name of the speed-dial, for example "Johnson Janitorial", and the "code" field contains the speed dial code (a number between 0 and 99), for example 08. Either one- or two-digit numbers are accepted; for example, either 06 or 6 can be used.

### Creating an import file using Microsoft Outlook

If contacts are saved in Microsoft Outlook, export them into a .CSV file, and then use that file to import them into the printer.

1. From the Outlook **File** menu, choose **Import and Export...**
2. In the **Import and Export Wizard**, choose **Export to a file**, and then click **Next**.
3. Select **Comma Separated Values (DOS)**, and then click **Next**.
4. Select the **Contacts** folder, and then click **Next**.
5. Enter in a name for the file, with a .CSV extension. Click **Browse** to choose a location on the computer to save the file. Click **Next**.
6. Click **Finish** to finish the wizard and export the file.
7. To import the .CSV file into the printer, follow Steps 4 and 5 of Importing an address book.

### Export an address book

The address book or user information saved in the printer can be exported into a .CSV file with the format of one header row followed by a row for each user or address book record.

Open the export file in either a spreadsheet program like Microsoft Excel or in a text program like Notepad.

1. Click the **Export All...** button.
2. Select the check boxes next to the objects you want to export. If the file was encrypted, enter the encryption key. The following choices are available:
  - **Address Books**
  - **Fax Speed Dials**
  - **User Access Code List**
3. Click the **Export** button.
4. Click the **Save File** button.

5. In the dialog box that displays, click **Save**, and then select the location to save the file.

## Configure scanner job shortcuts using Quick Sets

Use the following information to configure scanner job shortcuts using Quick Sets.

### Introduction

To use a Quick Set on the printer control panel, enable the base application. Create Quick Sets for the following base applications to improve job accuracy and the time to complete a job:

- **E-mail** – Use email Quick Sets to configure and save commonly used settings for sending jobs from the printer via email as email attachments.
- **Fax** – Use fax Quick Sets to configure and save commonly used settings for fax jobs.
- **Save to Network Folder** – Use Save to Network Folder Quick Sets to configure and save commonly used settings for saving jobs to a network folder.
- **Save to USB** – Use Save to USB Quick Sets to configure and save commonly used settings for saving jobs to a USB device.
- **Copy** (MFPs only) – Use Copy Quick Sets to configure and save commonly used settings for copy jobs.
- **Save to SharePoint®** – Use Save to SharePoint Quick Sets to configure and save commonly used settings for saving jobs to a SharePoint site.

Select from various job settings, such as starting a job immediately upon selection of a quick set or requiring an image preview before starting a job.

### Add and manage Quick Sets

Learn how to add and manage Quick Sets.

#### Add a Quick Set

Use the following steps to add a new Quick Set.

1. Using the top navigation tabs, click **General**.
2. In the left navigation pane, click **Quick Sets Setup**.
3. Click **Add** to begin the **Quick Set Wizard**.



**NOTE:** Click **Cancel** on any page of the **Quick Set Wizard** to cancel the current changes, exit the **Quick Set Wizard**, and return to the **Quick Sets Setup** page.

---

4. Select a **Quick Set Type**, and then click **Next**. The following Quick Set types are available for selection, depending on your printer:



**NOTE:** A **Quick Set Type** only needs to be determined when a quick set is created by using the **General** EWS tab.

---

- **E-mail**
- **Fax**

- **Save to Network Folder**
  - **Save to USB**
  - **Copy** (MFPs only)
  - **Scan to SharePoint®**
5. Enter a title for the Quick Set in the **Quick Set Title** (required) field.
  6. Select the location for the quick set to appear on the printer from the **Button Location** drop-down list. This setting determines whether the Quick Set displays on the **Home** screen or within the **Quick Sets** area on the printer control panel.
  7. Enter a description of the Quick Set in the **Quick Set Description** (required) field.
  8. Select a **Quick Set Start Option** to determine what occurs after selecting a Quick Set on the printer control panel, and then click **Next**.
  9. Select settings and complete tasks in the wizard. Click **Next** to proceed to the next page of available options until reaching the **Summary** page.



---

**NOTE:** The settings available in the Quick Set Wizard vary by the type of Quick Set being added. Refer to the tables in the Quick Set settings and options section in [Quick Set settings and options on page 97](#) to see the available settings and options for each type of Quick Set.

---

10. Review the summary of settings, and then click **Finish** to save the Quick Set, or click **Previous** to edit the settings.

## Edit a Quick Set

Use the following steps to edit the settings of an existing Quick Set.

1. Using the top navigation tabs, click **General**.
2. In the left navigation pane, click **Quick Sets Setup**.
3. In the **Quick Sets** area, click the check box next to the appropriate Quick Set, and then click **Edit**. The **Quick Set Wizard** opens.



---

**NOTE:** Click **Cancel** on any page of the **Quick Set Wizard** to cancel the current changes, exit the **Quick Set Wizard**, and return to the **Quick Sets Setup** page.

---

4. If necessary, modify the following settings, and then click **Next**:
  - **Quick Set Title**
  - **Button Location**
  - **Control Panel location**
  - **Quick Set Description**
  - **Quick Set Start Option**

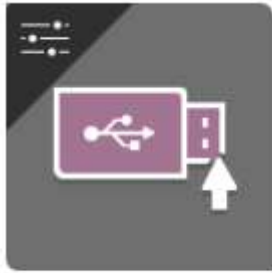
5. Select settings and complete tasks in the wizard. Click **Next** to proceed to the next page of available options until reaching the **Summary** page.



**NOTE:** The settings available in the Quick Set Wizard vary by the type of Quick Set being edited. Refer to the tables in the Quick Set settings and options section in [Quick Set settings and options on page 97](#) to see the available settings and options for each type of Quick Set.

6. Review the **Summary** page, and then click **Finish** to save changes made to the Quick Set.

Following is an example of a **Scan to USB Drive** icon, which displays after that quick set has been created.



**Scan to USB Drive**

### Copy a Quick Set

Use the following steps to copy a Quick Set.

1. Using the top navigation tabs, click **General**.
2. In the left navigation pane, click **Quick Sets Setup**.
3. In the **Quick Sets** area, click the check box next to the appropriate Quick Set, and then click **Copy**. The **Quick Set Wizard** opens.



**NOTE:** Click **Cancel** on any page of the **Quick Set Wizard** to cancel the current changes, exit the **Quick Set Wizard**, and return to the **Quick Sets Setup** page.

4. If necessary, modify the following settings, and then click **Next**:
  - **Quick Set Title**
  - **Button Location**
  - **Control Panel location**
  - **Quick Set Description**
  - **Quick Set Start Option**
5. Select settings and complete tasks in the wizard. Click **Next** to proceed to the next page of available options until reaching the **Summary** page.



**NOTE:** The settings available in the Quick Set Wizard vary by the type of Quick Set being copied. Refer to the tables in the Quick Set settings and options section in [Quick Set settings and options on page 97](#) to see the available settings and options for each type of Quick Set.

6. Review the **Summary** page, and then click **Finish** to save the Quick Set.

## Remove a Quick Set

Use the following steps to remove a Quick Set.

1. Using the top navigation tabs, click **General**.
2. In the left navigation pane, click **Quick Sets Setup**.
3. In the **Quick Sets** area, click the check box next to the appropriate Quick Set, and then click **Remove....**
4. When the **Confirmation Page** opens, click **Remove** to finish removing the Quick Set.

## Quick Set settings and options

The following tables list the settings and options available in the Quick Set Wizard when adding, editing, or copying a Quick Set.

**Table 6-44** Address and Message Field Control – Email Quick Sets

Option	Description
<b>Address Field Restrictions</b>	Use the <b>Address Field Restrictions</b> drop-down list to specify whether users can type an email address or select an email address from an address book.
<b>From:</b>	Use the <b>From:</b> drop-down list to set the email address that displays in the From: field of the email.  If <b>Default From:</b> is selected, the email address listed in the <b>Default From:</b> field is used.  If <b>User's address (sign-in required)</b> is selected, the user is required to sign in to the printer with their email address when using the Quick Set.  This field can be set to be user-editable.
<b>Default From:</b>	The <b>Default From:</b> field is used to define the email address used when <b>Default From:</b> is selected in the <b>From:</b> drop-down list.
<b>Default Display Name:</b>	Use this field to set the name displayed on the printer's control panel. If this field is not set, the value in the <b>Default From:</b> displays on the printer's control panel.  This field is optional.
<b>To:</b> <b>CC:</b> <b>BCC:</b>	Use these drop-down lists to set the email recipient, CC (carbon copy) and BCC (blind carbon copy) values.  The options for each of these fields are: <ul style="list-style-type: none"><li>• <b>User's address (sign-in required)</b></li><li>• <b>Blank</b></li><li>• <b>Specify address</b></li></ul> These fields can be set to be user-editable.
<b>Subject:</b>	Use this field to set the value that appears in the subject line of the email.  This field can be set to be user-editable.
<b>Message:</b>	Use this field to set the value for the body of the email.  This field can be set to be user-editable.

**Table 6-45** Signing and Encryption – Email Quick Sets

Option	Description
<b>Signing</b>	Use the <b>Signing</b> drop-down list to specify whether the email sent using the Quick Set is digitally signed.  This field can be set to be user-editable.
<b>Hashing Algorithm</b>	Use the <b>Hashing Algorithm</b> drop-down list to set the type hashing algorithm used with signed emails. The following hashing algorithms are available: <ul style="list-style-type: none"><li>• <b>SHA-1</b></li><li>• <b>SHA-256 (recommended)</b></li><li>• <b>SHA-384</b></li><li>• <b>SHA-512</b></li></ul>
<b>Encryption</b>	Use the <b>Encryption</b> drop-down list to specify whether the email sent using the Quick Set is encrypted.  This field can be set to be user-editable.
<b>Encryption Algorithm</b>	Use the <b>Encryption Algorithm</b> drop-down list to set the encryption algorithm used for encrypted emails sent using the Quick Set.
<b>Attribute for Recipient Public Key</b>	The <b>Attribute for Recipient Public Key</b> field is used to set the attribute used for retrieving the email recipient's public key from LDAP for signed or encrypted emails.

**Table 6-46** Scan settings – Email, Fax, Save to Network Folder, and Save to USB Quick Sets

Option	Description
<b>Default File Type</b>	Select the default file type for the scanned document: <ul style="list-style-type: none"><li>• <b>PDF</b></li><li>• <b>JPEG</b></li><li>• <b>TIFF</b></li><li>• <b>MTIFF</b></li><li>• <b>XPS</b></li><li>• <b>PDF/A</b></li><li>• <b>Text (OCR)</b></li><li>• <b>Unicode Text (OCR)</b></li><li>• <b>RTF (OCR)</b></li><li>• <b>Searchable PDF (OCR)</b></li><li>• <b>Searchable PDF/A (OCR)</b></li><li>• <b>HTML (OCR)</b></li><li>• <b>CSV (OCR)</b></li></ul>

**Table 6-46** Scan settings – Email, Fax, Save to Network Folder, and Save to USB Quick Sets (continued)

Option	Description
<b>Default Color Preferences</b>	Select the default color setting for the scanned document: <ul style="list-style-type: none"> <li>• <b>Color</b></li> <li>• <b>Black</b></li> <li>• <b>Black/Gray</b></li> <li>• <b>Automatically detect</b></li> </ul>
<b>Default Output Quality</b>	Select the default output quality for the scanned document: <ul style="list-style-type: none"> <li>• <b>Low (small file)</b></li> <li>• <b>Medium</b></li> <li>• <b>High (large file)</b></li> </ul>
<b>Default Resolution</b>	Select the default scan resolution for the scanned document: <ul style="list-style-type: none"> <li>• <b>75 dpi</b></li> <li>• <b>150 dpi</b></li> <li>• <b>200 dpi</b></li> <li>• <b>300 dpi</b></li> <li>• <b>400 dpi</b></li> <li>• <b>600 dpi</b></li> </ul>

**Table 6-47** File settings – Email, Save to Network Folder, and Save to USB Quick Sets

Feature	Description
<b>File Name Prefix</b>	Set the default file name prefix used for files saved to a network folder.
<b>Default File Name</b>	Default file name for the file to be saved. Select the <b>User editable</b> check box to make this setting editable at the product control panel.
<b>File Name Suffix</b>	Set the default file name suffix used for files saved to a network folder. Duplicate filename suffix default [filename]_YYYYMMDDT
<b>File Number Format</b>	Select a file name format for when the job is divided into multiple files.
<b>Default File Type</b>	Select the file format for the saved file. Select the <b>User editable</b> check box to make this setting editable at the product control panel.
<b>File Name Preview</b>	Enter a file name, and then click the <b>Update Preview</b> button.
<b>Default Color Preference</b>	Select whether the file is in black & white or in color.
<b>Default Output Quality</b>	Select the quality for the file. Higher-quality images require a larger file size than lower-quality images, and they take more time to send.
<b>Default Resolution</b>	Set the resolution for the file. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller.

**Table 6-47 File settings – Email, Save to Network Folder, and Save to USB Quick Sets (continued)**

Feature	Description
<b>Compression</b>	Specify if the file uses Normal or High compression when saving a scanned document as a PDF or XPS file. If compression is set to High, the scanned file is smaller, but the scanning process might take longer than Normal compression.
<b>Black TIFF Compression</b>	Select the black TIFF compression algorithm to be used to compress the generated TIFF file.
<b>Color/Grayscale TIFF Compression</b>	Select the color/grayscale TIFF compression algorithm to be used to compress the generated TIFF file.
<b>PDF encryption</b>	If the file type is PDF, then this option encrypts the output PDF file. A password must be specified as part of the encryption. The same password must be used to open the file. The user will be prompted to enter a password prior to scanning their job if one has not been set prior to pressing start.
<b>Disable OCR file types</b>	Select this setting to prevent OCR file types from being available from the product control panel.
<b>Enable Blank Page Suppression</b>	If the <b>Enable Blank Page Suppression</b> option is enabled, blank pages will be ignored.

**Table 6-48 Copy settings – Copy Quick Sets**

Option	Description
<b>Copies</b>	Set the default number of copies.
<b>Sides</b>	Select a <b>Copy Sides</b> option: <ul style="list-style-type: none"><li>• <b>1-sided original, 1-sided output</b></li><li>• <b>2-sided original, 2-sided output</b></li><li>• <b>1-sided original, 2-sided output</b></li><li>• <b>2-sided original, 1-sided output</b></li></ul>
<b>Color/Black</b>	Specify whether copies are printed in color or in black and white: <ul style="list-style-type: none"><li>• <b>Auto Detect:</b> Prints color documents in color (for printers that support color copying), and black and white documents in black and white. For mixed documents, the printer will determine whether to print in color or black and white.</li><li>• <b>Color:</b> Prints documents in color (for printers that support color copying).</li><li>• <b>Black:</b> Prints documents in black and white.</li></ul>
<b>Collate</b>	For printers that support print-job finishing, each set of copied pages are assembled in the same order as the original document. <b>NOTE:</b> If the printer has a stapler installed, select a staple option. To not staple the copies, select <b>None</b> . Select a <b>Collate</b> option. <ul style="list-style-type: none"><li>• <b>Collate on (Sets in page order):</b> If making more than one copy, select to assemble pages in the correct order for each set of copies.</li><li>• <b>Collate off (Pages grouped):</b> Select to group the same pages together. For example, if making five copies of an original document that has two pages, all five first pages are grouped together and all five second pages are grouped together.</li></ul>

**Table 6-48 Copy settings – Copy Quick Sets (continued)**

Option	Description
<b>Reduce/Enlarge</b>	<p>Use the <b>Reduce/Enlarge</b> feature to scale the size of the document up or down.</p> <p>Select one of the predefined percentages, or touch the <b>Scaling</b> field, and enter a percentage between 25 and 400 for the flatbed scanner and between 25 and 200 for the document feeder. You can also select these options:</p> <ul style="list-style-type: none"><li>• <b>Auto:</b> The printer automatically scales the image to fit the paper size in the tray.</li><li>• <b>Auto Include Margins:</b> The printer reduces the image slightly to fit the entire scanned image within the printable area on the page.</li></ul> <p><b>NOTE:</b> To reduce the image, select a scaling percentage that is less than 100. To enlarge the image, select a scaling percentage that is greater than 100.</p>
<b>Paper Selection</b>	<p>Select which tray to use when printing or making copies:</p> <ul style="list-style-type: none"><li>• <b>Manually feed:</b> The <b>Paper Selection</b> option is automatically set to <b>Tray 1: Any Type, Any Size</b></li><li>• <b>Automatically Detect:</b> Automatically matches the paper size of the original to a paper size in one of the trays</li><li>• <b>Tray 1: Any Type, Any Size</b></li><li>• <b>Tray 2: Plain, Letter (8.5x11)</b></li></ul>
<b>Image Adjustment</b>	<p>Use the settings to improve the overall quality of the copy. For example, adjust the <b>Darkness</b> and <b>Sharpness</b>, and use the <b>Background Cleanup</b> setting to remove faint images from the background or to remove a light background color.</p> <ul style="list-style-type: none"><li>• <b>Darkness:</b> Adjust to increase or decrease the amount of white and black in the colors</li><li>• <b>Contrast:</b> Adjust to increase or decrease the difference between the lightest and darkest color on the page</li><li>• <b>Background Cleanup:</b> Adjust if you are having trouble copying a faint image</li><li>• <b>Sharpness:</b> Adjust to sharpen or soften the image. For example, increasing the sharpness could make text look clearer, but decreasing it could make photographs look smoother.</li></ul>

**Table 6-48 Copy settings – Copy Quick Sets (continued)**

Option	Description
<b>Content Orientation</b>	<p>For some features to work correctly, specify the way the content of the original document is placed on the page.</p> <p>If you are making two-sided copies, select a 2-sided format option.</p> <p><b>Orientation:</b></p> <ul style="list-style-type: none"><li>• <b>Portrait:</b> The short edge of the page is along the top.</li><li>• <b>Landscape:</b> The long edge of the page is along the top.</li></ul> <p><b>2-Sided Format:</b></p> <ul style="list-style-type: none"><li>• <b>Book-style:</b> The back side of the original is printed right-side-up, and the back side of the copy is printed the same way. Use this option for originals and copies that are bound along the left edge.</li><li>• <b>Flip-style:</b> The back side of the original is printed upside-down, and the back side of the copy is printed the same way. Use this option for originals and copies that are to be bound along the top edge.</li><li>• <b>Book-style original; Flip-style copy:</b> The back side of the original is printed right-side-up, but the back side of the copy is printed upside-down. Use this option when the original is bound along the left edge, but the copies need to be bound along the top edge.</li><li>• <b>Flip-style original; Book-style copy:</b> The back side of the original is printed upside-down, but the back side of the copy is printed right-side-up. Use this option when the original is bound along the top edge, but the copies need to be bound along the left edge.</li></ul>
<b>Optimize Text/ Picture</b>	<p>Select the option for how to handle output of a particular type content being printed:</p> <ul style="list-style-type: none"><li>• <b>Manually adjust:</b> Manually optimize the setting for each document</li><li>• <b>Text:</b> Use for documents that contain mostly text</li><li>• <b>Printed picture:</b> Use for line drawings and preprinted images, such as magazine clippings or pages from books</li></ul> <p><b>NOTE:</b> If bands of irregular intensity print on the copies, try selecting <b>Printed picture</b> to improve the quality.</p> <ul style="list-style-type: none"><li>• <b>Photograph:</b> Use for photographic prints</li></ul> <p>Select an <b>Optimize For</b> value for the manual adjustment.</p>
<b>Pages per Sheet</b>	<p>Select how many pages to print on one sheet and the page order: to copy to one, two, or four <b>Pages per Sheet</b> and select whether to <b>Add page borders</b>.</p> <p><b>Pages per Sheet</b></p> <ul style="list-style-type: none"><li>• <b>One (1)</b></li><li>• <b>Two (2)</b></li><li>• <b>Four (4)</b></li></ul> <p><b>Page Order</b></p> <ul style="list-style-type: none"><li>• <b>Right, then down:</b> Prints the pages in rows</li><li>• <b>Down, then right:</b> Prints the pages in columns</li></ul> <p>Click the <b>Add page borders</b> check box to add borders on the pages.</p>

**Table 6-48 Copy settings – Copy Quick Sets (continued)**

Option	Description
<b>Original Size</b>	<p>Specify the size of the original document:</p> <ul style="list-style-type: none"> <li>• <b>Automatically detect</b></li> <li>• <b>Letter (8.5x11)</b></li> <li>• <b>Mixed Letter/Legal</b></li> <li>• <b>Legal (8.5x14)</b></li> <li>• <b>Executive (7.25x10.5)</b></li> <li>• <b>Statement (5.5x8.5)</b></li> <li>• <b>Oficio (8.5x13)</b></li> <li>• <b>A4 (210x297 mm)</b></li> <li>• <b>A5 (148x210 mm)</b></li> <li>• <b>B5 (182x257 mm)</b></li> <li>• <b>16k (195x270 mm)</b></li> <li>• <b>DPostcard JIS (148x200 mm)</b></li> <li>• <b>Oficio (216x340 mm)</b></li> </ul>
<b>Booklet</b>	<p>Select to have <b>Booklet Format</b> off or on. If on, select either a <b>1-sided</b> or <b>2-sided</b> booklets and whether to enable <b>Borders on each page</b>.</p>
<b>Edge-to-Edge</b>	<p>Use to avoid shadows that can display along the edges of copies when the original document is printed close to the edges.</p> <p>Combine this feature with the <b>Reduce/Enlarge</b> feature to ensure that the entire page is printed on the copies.</p> <p>When the <b>Edge-to-Edge</b> feature is turned on, the printer minimizes margins and prints as close to the edge of the paper as possible.</p>
<b>Multi-feed Detection</b>	<p>Use this feature to detect when multiple pages are fed simultaneously into the ADF (automatic document feeder) or sheet-feed scanner, alert the user, and stop the scanning job so the proper action can be taken. By default this feature is <b>Enabled</b> so that it automatically improves the scanning experience and results.</p>
<b>2-sided ID Scan</b>	<p>Select to have <b>2-sided ID Scan</b> on or off to scan both sides of a card, such as an identification card or business card.</p>
<b>Book Mode</b>	<p>Select to have <b>Book Mode</b> off or on.</p>

## Example Quick Sets

Below is an example of what the **Quick Sets** area looks like after quick sets have been created.

**Quick Sets** Help

---

**Quick Sets List**

Quick Sets are pre-configured sets of options that allow users to easily start a job without having to manually configure frequently used job settings. A Quick Set can be accessed from the Home screen or from the app associated with the Quick Set. Quick Sets are saved as unique jobs that do not impact the default options of the apps.

Show all ▼

Quick Set Name	Status	Quick Set Type
[-] Home Screen		
[-] Quick Sets		
<input type="checkbox"/> Photo Quick Set	✔	Copy
<input type="checkbox"/> Save to USB	✔	Scan to USB Drive
<input type="checkbox"/> Test Network Folder	✔	Scan to Network Folder

Quick Sets that are displayed on the control panel can only be moved using the [Control Panel Customization](#) page.

Add... Edit... Copy... Remove...

## Manage multiple devices with Digital Sending Software


The HP Digital Sending Software (DSS) is a remote management tool available for purchase. DSS allows many multi-function printers, or similar devices, to be managed from a single point of contact.

When bound to DSS, all digital send and fax setup for the device is managed through the DSS configuration utility on the server. As a result, many setup pages will be disabled within this website. Allow the DSS connection if DSS is used for this device. After the device has been bound to a DSS server, prevent other DSS servers from binding to the device by disabling **Allow transfer to a new server**.

For more information, visit the [Digital Sending Software](#) website.

## Configure faxing

Use the following information to configure the fax features for a printer.

 **NOTE:** All features might not be available on every device.

### Set up fax send

Use the following information to set up fax send using the Embedded Web Server (EWS).

#### Introduction

Set up faxing from the internal modem, or set up the LAN fax service or an Internet fax service. Also, configure fax-send settings that are common for all fax jobs that are sent from the printer.

 [View a video demonstration of how to set up the Fax Send feature](#)

#### Before you begin

Connect the fax cable to the fax port on the printer and to the phone port on the wall.

Administrators need the following information before beginning the configuration process for **Internet Fax Setup**:

- Administrative access to the printer

- DNS suffix (e.g., companyname.com)
- SMTP server (e.g., smtp.mycompany.com)



**NOTE:** If you do not know the SMTP server name, SMTP port number, or authentication information, contact the e-mail/Internet service provider or system administrator for the information. SMTP server names and port names are typically found by doing an Internet search. For example, use terms like "Gmail SMTP server name" or "yahoo SMTP server name" to search.

- SMTP server authentication requirements for outgoing e-mail messages, including the user name and password used for authentication, if applicable.

## Step one: Select the fax send method

Select the fax send method for either FutureSmart 3 or 4.

### FutureSmart 3

Use the following steps to select the fax send method (FutureSmart 3).

1. Using the EWS top navigation tabs, click **Fax**.
2. In the left navigation pane, click **Fax Send Setup**.
3. In the **Fax Send Setup** area, select the **Enable Fax Send** check box.
4. From the **Fax Send Method** drop-down list, select a fax send method:
  - **Internal Modem**
  - **LAN Fax Setup**
  - **Internet Fax Setup**

### FutureSmart 4

Use the following steps to select the fax send method (FutureSmart 4).

1. Using the EWS top navigation tabs, click **Fax**.
2. In the left navigation pane, click **Fax Send Setup** and then click **Default Job Options**.
3. Select the **Enable Fax Send** check box.
4. From the **Fax Send Method** drop-down list, select a fax send method:
  - **Internal Modem**
  - **LAN Fax Setup**
  - **Internet Fax Setup**

## Step two: Set up the Common Job Settings

Set up the common job settings for either FutureSmart 3 or 4.

### FutureSmart 3

Use the following information to set up common fax job settings (FutureSmart 4).

- **Quick Sets** area: Use the controls in the **Quick Sets** area to create and save frequently-used settings for future use

Quick Sets are short-cut jobs that are available from the [Home](#) screen or within the [Quick Sets](#) feature on the printer control panel.

- **Notification Settings** area: Select a **Condition on Which to Notify** option
  - If a notify option is selected and a user is signed in, an email notification about the job status is sent to the address associated with the signed-in user
  - If a notify option is selected and a user is not signed in, a prompt to enter an email address at the printer control panel is displayed and must be entered before the notification can be sent
- **General Fax Send Settings** area: Use to select options to require a fax number confirmation and speed dial matching
- **Scan Settings** area: Configure the default settings that describe the original documents. Users can override these settings for individual jobs

## FutureSmart 4

Use the following information to set up common fax job settings (FutureSmart 4).

### Common Job Settings

- **Notification Settings** area: Select a **Condition on Which to Notify** option
  - If a notify option is selected and a user is signed in, an email notification about the job status is sent to the address associated with the signed-in user
  - If a notify option is selected and a user is not signed in, a prompt to enter an email address at the printer control panel is displayed and must be entered before the notification can be sent
- **General Fax Send Settings** area: Use to select options to require a fax number confirmation and speed dial matching
- **Scan Settings** area: Configure the default settings that describe the original documents. Users can override these settings for individual jobs

### Quick Sets

- In the left navigation menu, click **Quick Sets** under **Fax Send Setup**: Use the controls in the **Quick Sets** area to create and save frequently-used settings for future use

Quick Sets are short-cut jobs that are available from the [Home](#) screen or within the [Quick Sets](#) feature on the printer control panel.

## Step three: Configure a fax send method

Use one of the following methods, based on your needs, to configure a fax-send method:

### Option one: Configure the internal modem

Use the settings on the **Internal Modem** tab to configure the printer to send and receive faxes using its internal modem.

1. In the **Fax Send Setup** area, click the **Internal Modem** tab.

2. Select the **Country/Region**, and then enter the **Company Name** and **Phone Number** in the **Device Modem Settings** area. The country/region, company name, and phone number are displayed in the fax header of sent faxes.
3. Set the general fax send settings in the **General Fax Send Settings** area. The following general fax send settings are available:
  - **Fax Header** (default is **Prepend**)
  - **Enable PC Fax Send** (selected by default)
  - **Enable Error Correction Mode** (selected by default)
  - **Enable JBIG Compression** (selected by default)
4. Set the dialing settings in the **Fax Dialing Settings** area. The following dialing settings are available:
  - **Fax Dial Volume** (default setting is **Low**)
  - **Dialing Mode** (default setting is **Tone**)
  - **Dialing Prefix**
  - **Fax Send Speed** (default setting is **Fast**)
  - **Redial Interval** (default setting is **5**)
  - **Redial on Error** (default setting is **2**)
  - **Redial on No Answer** (default setting is **0**)
  - **Redial on Busy** (default setting is **3**)
  - **Detect Dial Tone** (not selected by default)
5. Select the **Enable Billing Codes** check box in the **Billing Code Settings** area to enable the use of billing codes on the printer. Enter a default billing code value in the **Default Billing Code** field. Enter a minimum length for the billing code in the **Minimum Length** field. Select the **Allow users to edit billing code** check box if necessary.

#### Option two: Configure LAN Fax Setup

When signing up for LAN fax service, the service provider should have given the information needed to set up the service. Use that information to configure the service, and then follow these instructions to use the service with the printer. Depending on the service provider, some of these settings might not be available.

1. In the **Fax Send Setup** area, click the **LAN Fax Setup** tab.
2. In the **LAN Fax Service Settings** area, select the name of the LAN fax service. Select the file format that the service uses.
3. In the **Folder Settings** area, select one of the following options:

##### Option one: Save to a standard shared network folder

- a. Select **Save to a standard shared network folder**.

- b. Enter the network folder information in the fields, and then click the **Verify Folder Access** button. The UNC path uses this format: \\servername\sharename\foldername.

#### Option two: Save to an FTP Server

- a. Select **Save to an FTP Server**.
- b. Enter the FTP server information in the fields, and then click **Verify Folder Access**.
4. In the **Dialing Settings** area, enter the maximum number of times the printer should attempt to try sending the fax if the first attempt is unsuccessful. Also enter the number of minutes to wait between attempts.
5. In the **Input Settings** area, select whether to receive notification if there are errors sending the file to the network folder. If **Error Correction Mode** is enabled, unsuccessfully sent portions of a fax are sent again.
6. In the **Output Settings** area, select the appropriate transmission speed, and select whether to include a cover page that the LAN fax service provides.
7. In the **Billing Code Settings** area, choose whether to enable billing codes. Select **Enable Billing Codes** to enable this feature, and then enter a **Default Billing Code** and a **Minimum Length** for the code. There is an option to **Allow users to edit billing code**.

#### Option three: Configure Internet Fax Setup

When signing up for the Internet fax service, the service provider should have given you the information needed to set up the service. Use that information to configure the service, and then follow these instructions to use the service with the printer.

1. In the **Fax Send Setup** area, click the **Internet Fax Setup** tab.
2. In the **Internet Fax Service Settings** area, enter the information from your service provider in the **Internet Fax Provider Domain** and the **T37 Prefix** fields.
3. Enter the **Default Fax Account E-mail Address**. If you want to use the email address for the user who is signed in to the printer, select the appropriate box.
4. Select a **File Format**.
5. Choose whether to enable the **If available, use the signed in user's e-mail address as the Fax Account address** option.
6. If you are using a service in North America, choose whether to enable the **Auto complete to North American Numbering Plan (NANP) format using area code** option. If selected, enter the area code in the field provided.

#### Step four: Complete the setup

On the **Fax Send Setup** page, review the selected settings, and then click **Apply** to complete the setup.

#### Set up fax receive

Use the following information to set up fax receive using the Embedded Web Server (EWS).

#### Introduction

Use the **Fax Receive Setup** page to configure settings for the following groups of features:

- **Device Modem Settings**
- **Fax Job Options**
- **Fax Receive Settings**
- **Notification Settings**
- **Fax Printing Schedule**
- **Blocked Fax Numbers**

## Before you begin

Connect the fax cable to the fax port on the printer and to the phone port on the wall.

## Step one: Set up the Fax Job Options

Learn how to set up the fax job options for either FutureSmart 3 or 4.

### FutureSmart 3

Use the following steps to select the fax job options (FutureSmart 3).

1. Using the top navigation tabs, click **Fax**.
2. In the left navigation pane, click **Fax Receive Setup**.
3. In the **Fax Receive Setup** area, select the **Enable Fax Receive** check box. If this check box is not selected, the feature is unavailable at the printer control panel.
4. Set the following features in the **Fax Job Options** area:
  - **Paper Selection:** If you select a tray, the fax prints on whatever size paper is in the tray
  - **Output Bin**
  - **Sides:** Set this option to specify whether incoming faxes are printed on one side or two sides




---

**NOTE:** You must be an administrative user to access this setting.

---

- **Fit to Page:** Scale the incoming page to print on the size of paper in one of the trays
- **Stamp Received Faxes:** Select this setting to print the date, time, phone number, and page number on every incoming fax page

### FutureSmart 4

Use the following steps to select the fax job options (FutureSmart 4).

1. Using the top navigation tabs, click **Fax**.
2. In the left navigation pane, click **Fax Receive Setup**.
3. In the **Fax Receive Setup** area, select the **Enable Fax Receive** check box. If this check box is not selected, the feature is unavailable at the printer control panel.
4. Set the following features in the **Default Job Options** area:
  - **Paper Selection:** If you select a tray, the fax prints on whatever size paper is in the tray

- **Output Bin**
- **Output Sides:** Set this option to specify whether incoming faxes are printed on one side or two sides



**NOTE:** You must be an administrative user to access this setting.

- **Fit to Page:** Scale the incoming page to print on the size of paper in one of the trays
- **Stamp Received Faxes:** Select this setting to print the date, time, phone number, and page number on every incoming fax page

## Step two: Set up the Fax Receive Settings

Set the following features in the **Fax Receive Settings** area:

### FutureSmart 3

- **Ringer Volume**
- **Rings To Answer:** Select the number of rings to allow before the fax answers
- **Fax Receive Speed**
- **Ring Interval:** Select a ring interval between 220 and 600 ms
- **Ring Frequency:** The default ring frequency is 68 Hz. You can set a custom frequency between 1 and 200 Hz

### FutureSmart 4

- **Ring Volume**
- **Rings To Answer:** Select the number of rings to allow before the fax answers
- **Fax Receive Speed**
- **Ring Interval:** Enter a ring interval between 0 and 600 ms
- **Ring Frequency High Limit:** The default ring frequency is 68 Hz. You can set a custom frequency between 0 and 100 Hz

## Step three: Set up the Notification Settings

Set up the notification settings for either FutureSmart 3 or 4.

### FutureSmart 3

Use the settings in the **Notification Settings** area to specify when you, or the person who is sending the email, should be notified of the status of sent emails. The default setting is that the signed in user's email address will be used. If the recipient email address is blank, no notification is sent.

Set the following features in the **Notification Settings** area:

- **Condition on Which to Notify:** Select one of the following conditions on which to notify:
  - **Notify when job completes**

- **Notify only if job fails**
- **Method Used to Deliver Notification:** Select the notification method, **E-mail** or **Print**. For **E-mail**, provide an email address
- **Include Thumbnail:** A thumbnail image of the first page of the fax is sent with the notification
- **Consolidate printed reports:** Consolidate multiple fax destinations into the same fax call report

#### FutureSmart 4

To select notification settings, navigate to the **Notification** area of the **Fax Receive Setup** area, or navigate to **Default Job Options** in the **Fax Send Setup** area. Set notification settings to specify when you, or the person who is sending the email, should be notified of the status of sent emails. The default setting is that the signed in user's email address will be used. If the recipient email address is blank, no notification is sent.

Set the following features in the **Notification** area:

- **Condition on Which to Notify:** Select one of the following conditions on which to notify:
  - **Do not notify**
  - **Notify when job completes**
  - **Notify only if job fails**

#### Step four: Set up the Fax Printing Schedule

Set up the fax printing schedule for either FutureSmart 3 or 4.

#### FutureSmart 3

Faxes print by default, but they can also be stored and printed on a schedule that you determine. Use the **Fax Printing Schedule** setting to specify when to print and when to store faxes.

Select one of the following options for the **Fax Printing Schedule**:

- **Always store faxes**
- **Always print faxes** (default)
- **Use Fax Printing Schedule**

Use the **Use Fax Printing Schedule** setting to set fax schedule events (the printing or storing of faxes). The setting can be turned on and off manually or scheduled to go on and off automatically for days of the week. The schedule can be set to lock out an entire day (24 hours) or to lock out a time period during the day. Only one lockout period can be set, but it can be applied to any number of days.

1. Select the **Use Fax Printing Schedule** option.
2. Choose whether to select to enable the **Use Holiday Sleep Schedule** check box.
3. Select a **Fax Schedule Event**, or click **Add** to create a new fax schedule event:
  - a. Select an **Event Type**.
  - b. Click in the **Time** field and then select a time for the fax schedule event.
  - c. Select one or more **Event Days**.

- d. Click **Apply**.

## FutureSmart 4

Faxes print by default, but they can also be stored and printed on a schedule that you determine. Use the **Fax Printing Schedule** setting to specify when to print and when to store faxes.

Select one of the following options for the **Fax Printing Schedule**:

- **Always store**
- **Always print** (default)
- **Use schedule**

Use the **Use schedule** setting to set fax schedule events (the printing or storing of faxes). The setting can be turned on and off manually or scheduled to go on and off automatically for days of the week. The schedule can be set to lock out an entire day (24 hours) or to lock out a time period during the day. Only one lockout period can be set, but it can be applied to any number of days.

Use a fax printing schedule:

1. Select the **Use schedule** option.
2. Choose whether to select to enable the **Use Holiday Sleep Schedule** check box.
3. Select an **Event Type**, or click **Add** to create a new fax schedule event:
  - a. Select an **Event Type**.
  - b. Click in the **Time** field and then select a time for the fax schedule event.
  - c. Select one or more **Event Days**.
  - d. Click **Apply**.
4. To edit a fax scheduled event, select the event and click **Edit**.

## Step five: Complete the setup

On the **Fax Receive Setup** page, review the selected settings, and then click **Apply** to complete the setup.

## Create and manage fax speed dials

Learn how to create and manage fax speed dials.

### Introduction

Use the control panel or HP Embedded Web Server (EWS) to manage the speed dials for the printer.

There are 1000 speed dials (numbered 000-999) available on the printer control panel using the fax job screen. Speed dials are listed on the fax screen by speed dial number, and the speed dial name is also displayed. Speed dials can have multiple destination numbers, and use ( - ), ( \* ), and ( # ) characters.

### Before you begin

Connect the fax cable to the fax port on the printer and to the phone port on the wall.

## Method one: Manage speed dials in the HP Embedded Web Server (EWS)

Use the following steps to manage speed dials in the EWS.

1. In the address line of your web browser, type the IP address or host name of the printer to open the EWS. For more information, see [Open the HP Embedded Web Server \(EWS\) on page 20](#).
2. Using the top navigation tabs, click **Fax**.
3. In the left navigation pane, click **Speed Dials**.
4. To add a new speed dial, use the following steps:
  - a. Select the checkbox next to the **Speed Dial Code** you want to assign the fax number to.
  - b. Click **Edit...**
  - c. In the **Edit Speed Dial** area, type a name for the speed dial in the **Speed Dial Name:** field.
  - d. Type the fax number for the speed dial in the **Fax Number:** field, and then click **Add**.
  - e. Click the **OK** button to save the speed dial.



---

**NOTE:** Multiple fax numbers can be associated with a single speed dial.

---

5. To edit a speed dial, use the following steps:
  - a. Select the checkbox next to the **Speed Dial Code** to edit, and then click **Edit...**
  - b. Edit the **Speed Dial Name:** or **Fax Number:**, and then click **OK** to save the changes to the speed dial.
6. To delete a speed dial, select the checkbox next to the **Speed Dial Code** and then click **Delete...**
7. Use the **Import...** button to import comma-separated value (.csv) files containing lists of contacts, speed dials, or user access codes. The import feature allows you to load multiple contacts, speed dials, or user access codes all at once instead of one at a time.
8. Use the **Export All...** button to save a list of the printer's address book contacts, speed dials, and/or user access codes to a single .csv file. The resulting .csv file can then be saved to a location of your choice.

## Method two: Manage speed dials using the control panel

Use the following steps to manage speed dials using the control panel.



---

**NOTE:** The steps vary according to the type of control panel.

---

### Create a speed dial list (FutureSmart 3)

Use the following steps to create a speed dial list (FutureSmart 3).

1. From the Home screen on the printer control panel, touch the **Fax** button.
2. Touch the **Speed Dials** button to display the **Speed Dials** screen.
3. Touch one of the unassigned **One Touch Speed Dials** numbers.
4. Touch the **Speed Dial Name** field to display the keyboard.

5. Type a name for the speed dial.
6. Type a fax number for the speed dial.



---

**NOTE:** To enter additional fax numbers for a speed dial, touch the screen to the right of the last digit of the previously entered fax number. When the cursor appears, touch the enter key to move the cursor to the next line. Repeat this step to enter all the numbers for the speed dial.


---

7. Touch the **OK** button.

The name and fax number (or numbers) display next to the selected **One Touch Speed Dials** number. Touch the **OK** button to return to the Fax screen.

### Create a speed dial list or new speed dial contact (FutureSmart 4)

Use the following steps to create a speed dial list or new speed dial contact.

1. From the Home screen on the printer control panel, swipe until the **Contacts** app tile displays. Touch the **Contacts** tile to open the app.
2. Touch the arrow in the upper left corner and select **Fax Speed Dials**.
3. Touch the **Add Contact** icon .
4. Type a name for the speed dial list or speed dial contact in the **Display Name** field.
5. Type a **Fax Speed Dial** number, or select **Next Available**.
6. Type a **Fax Number** for the contact, or, if creating a list, type numbers for all contacts in the list.
7. Touch **Save**.

### Add a number to an existing speed dial list

Add a number to an existing speed dial list as follows.


#### FutureSmart 3

Use the following steps to add a number to an existing speed dial list.

1. From the Home screen on the product control panel, scroll to and touch the **Fax** button.
2. Touch the **Speed Dials** button to display the **Speed Dials** screen.
3. Touch the **One Touch Speed Dials** number of the list to be edited.
4. Touch the down arrow on the **Speed Dial Name** box to open the drop-down menu.
5. Touch the **Fax Numbers** item.
6. To add a fax number for a speed dial name, touch the screen to the right of the last digit of the last fax number in the list. When the cursor appears, touch the enter key to move the cursor to the next line and then type the fax number.
7. Touch the **OK** button to return to the **Speed Dials** screen.
8. Touch the **OK** button to return to the **Fax** screen.

#### FutureSmart 4

Use the following steps to add a number to an existing speed dial list.

1. From the Home screen on the printer control panel, swipe until the **Contacts** app tile displays. Touch the **Contacts** tile to open the app.
2. Touch the arrow in the upper left corner and select **Fax Speed Dials**.
3. Select a speed dial list.
4. Touch the **Edit** icon .
5. Type the number for the contact you want to add in the **Fax Number** field.
6. Touch **Save**.

### Delete a speed dial list

Delete a speed dial list for either FutureSmart 3 or 4.


#### FutureSmart 3

Use the following steps to delete a speed dial list.

1. From the Home screen on the product control panel, scroll to and touch the **Fax** button.
2. Touch the **Speed Dials** button to display the **Speed Dials** screen.
3. Touch the **One Touch Speed Dials** number of the list to be deleted.
4. Touch the **Delete** button.
5. Touch the **Yes** button to confirm the deletion of the speed dial list and to return to the **Fax** screen.

#### FutureSmart 4

Use the following steps to delete a speed dial list.

1. From the Home screen on the printer control panel, swipe until the **Contacts** app tile displays. Touch the **Contacts** tile to open the app.
2. Touch the arrow in the upper left corner and select **Fax Speed Dials**.
3. Select a speed dial list.
4. Touch the **Delete** icon .
5. Touch **Delete** to confirm.

### Delete a single number from a speed dial list

Delete a single number from a speed dial list for either FutureSmart 3 or 4.

#### FutureSmart 3


Use the following steps to delete a single number from a speed dial list.

1. From the Home screen on the product control panel, scroll to and touch the **Fax** button.
2. Touch the **Speed Dials** button to display the **Speed Dials** screen.
3. Touch the **One Touch Speed Dials** number of the list to open the keyboard.

4. Touch the down arrow on the **Speed Dial Name** box to open the drop-down menu and then touch the **Fax Numbers** option.
5. Scroll through the list of fax numbers and touch the screen to the right of last digit of the fax number to be deleted. Use the backspace key to delete the fax number.
6. Touch the **OK** button to return to the **Speed Dials** screen.
7. Touch the **OK** button to return to the **Fax** screen.

#### FutureSmart 4

Use the following steps to delete a single number from a speed dial list.

1. From the Home screen on the printer control panel, swipe until the **Contacts** app tile displays. Touch the **Contacts** tile to open the app.
2. Touch the arrow in the upper left corner and select **Fax Speed Dials**.
3. Select a speed dial list.
4. Touch the **Edit** icon .
5. Scroll through the list of fax numbers and touch the screen to the right of last digit of the fax number to be deleted. Use the backspace key to delete the fax number.
6. Touch **Save**.

#### Search a speed-dial list by name

Search a speed-dial list by name for either FutureSmart 3 or 4.



**NOTE:** If you do not know the unique name of the speed dial, type a letter to select any portion of the list. For example, to view speed-dial names that begin with the letter N, type the letter N. If no matching entries exist, a message appears before the search shows the entry that is closest to the letter N.


#### FutureSmart 3

Use the following steps to search a speed-dial list by name.

1. From the Home screen on the product control panel, scroll to and touch the **Fax** button.
2. Touch the search button. This button looks like a magnifying glass and is located to the right of the **Speed Dials** button.
3. Type the first letters of the speed dial name to search for. As matches are found, the list at the top of the search screen is populated. If necessary, scroll to see all the entries, or type more letters to narrow the search.
4. Select the appropriate name from the list and touch the **OK** button. The speed-dial list on the main fax screen shows the selected entry within the list of numbers.
5. Touch a speed dial number to add it to the recipients list.
6. Select or search for additional names as needed.

#### FutureSmart 4

Use the following steps to search a speed-dial list by name.

1. From the Home screen on the printer control panel, swipe until the **Contacts** app tile displays. Touch the **Contacts** tile to open the app.
2. Touch the arrow in the upper left corner and select **Fax Speed Dials**.
3. Touch the **Search** icon .
4. Type the first letters of the speed dial name to search for. As matches are found, the list at the top of the search screen is populated. If necessary, scroll to see all the entries, or type more letters to narrow the search.

## Set up and configure fax archive

Learn how to configure settings for archiving and forwarding faxes.

### Introduction

Use the **Fax Archive and Forwarding** page to configure settings for archiving and forwarding faxes on the printer control panel.

Use the **Fax Archive** settings to send a copy of all incoming and outgoing faxes to an email address, a network folder, or an FTP server.

Use the **Fax Forwarding** settings to send a copy of all incoming and outgoing faxes to another fax number.

### Before you begin

The fax feature must be configured on the printer to archive and forward faxes.

Connect the fax cable to the fax port on the printer and to the phone port on the wall.

Administrators need the following information before beginning the configuration process:

- Administrative access to the printer
- DNS suffix (e.g., companyname.com)
- SMTP server (e.g., smtp.mycompany.com)



**NOTE:** If you do not know the SMTP server name, SMTP port number, or authentication information, contact the e-mail/Internet service provider or system administrator for the information. SMTP server names and port names are typically found by doing an Internet search. For example, use terms like "Gmail SMTP server name" or "yahoo SMTP server name" to search.

- SMTP server authentication requirements for outgoing e-mail messages, including the user name and password used for authentication, if applicable.

### Set up Fax Archive

Use the **Fax Archive** settings to send a copy of all incoming and outgoing faxes to an email address, a network folder, or an FTP server.

1. Select the **Fax** tab.
2. In the left navigation pane, select **Fax Archive and Forwarding**.

3. From the **Fax Archiving** drop-down list, select one of the following options:
  - **Do not archive (print only)**
  - **Archive and print**
  - **Archive only**
4. Select the **Type of Fax Job to Archive**.
  - **All faxes**
  - **Sent faxes**
  - **Received faxes**
5. Select an **On Archive Failure** option.
  - **Do nothing**
  - **Print received faxes**
  - **Store received faxes**
6. To enable the **Print archive failure notice**, select the check box.
7. To set the **Archive Destination** to a network folder or an FTP server, follow these steps:
  - Select the **FTP server** option and enter the settings in the **FTP Server** area.
  - Select the **Network folder** option and enter the settings in the **Folder Settings** area.
8. To set the **Archive Destination** to an **E-mail** address, type an email address in the **To/From** fields, and either select an outgoing SMTP server in the **Outgoing E-mail Servers (SMTP)** area, or click **Add...** to start the **Outgoing E-mail Servers (SMTP)** wizard, and then follow these steps:
  - a. Type the address of an SMTP server, and then click **Next**.
  - b. Select **Search network for outgoing e-mail server** and then click **Next**.
  - c. Select the server and then click **Next**.



**NOTE:** If an SMTP server was already created for another product function, the **Use a server already in use by another function** option displays. Select this option, and then configure it to be used for the email function.

---

- d. On the **Set the basic information necessary to connect to the server** dialog, set the options to use, and click **Next**.



**NOTE:** Refer to online sources to confirm these server settings are current and valid at the time of configuration.

---

- Enter a number in **Split e-mails if larger than (MB)** to prevent issues sending or receiving emails that are larger than 5 megabytes (MB)
- In most cases, the default port number does not need to be changed.

- Select the **Enable SMTP SSL Protocol** check box if you are using Google™ Gmail for the email service. Typically, for gmail, the SMTP address is smtp.gmail.com, port number 465, and the SSL should be enabled.
- e. On the **Server Authentication Requirements** dialog, select the option that describes the server's authentication requirements, and then click **Next**.



**NOTE:** If using a signed-in user's credentials, set email to require sign in by the user on the product control panel. Deny device guest access to email by clearing the check box for email in the **Device Guest** column in the **Sign In and Permission Policies** area on the **Access Control** dialog of the **Security** tab. The icon in the check box changes from a check mark to a lock.

- **Server does not require authentication**
  - **Server requires authentication**
    - **Use credentials of user to connect after Sign In at the control panel, OR**
    - **Always use these credentials**, enter the **User name** and **Password**.
- f. On the **Server Usage** dialog, choose the product functions that will send email through this SMTP server, and then click **Next**.



**NOTE:** If the server requires authentication, a user name and password for sending automatic alerts and reports from the product will be required.

- g. On the **Summary and Test** dialog, enter a valid email address in the **Send a test e-mail to:** field, and then click **Test**.
- h. Verify that all of the settings are correct, and then click **Finish** to complete the outgoing email server set up.
9. Review the selected settings, and then click **Apply** to complete the setup.

## Set up Fax Forwarding

Use the **Fax Forwarding** settings to send a copy of all incoming and outgoing faxes to another fax number.

1. Select the **Enable Fax Forwarding** check box.
2. Select the **Type of Fax Job to Forward**.
3. Enter a fax number in the **Fax Forwarding Number** field.
4. Review the selected settings, and then click **Apply** to complete the setup.

## Step three: Complete the setup

On the **Fax Archive and Forwarding** page, review the selected settings, and then click **Apply** to complete the setup.

---

# 7 Manage printers

Use the EWS to manage printers, including the following tasks:

## Manage security

Use the following information to manage the security features for printers using the EWS.

### Use the Self Test page

Use the **Self Test** page, located in the **Security** tab, to perform the following tests on the printer:

- **Function Integrity Test:** Verify the correct operation of the selected security functions and verify that they are running according to expected system parameters.
- **Data Integrity Test:** Test the user access codes, passwords, server connection settings, and other security-relevant data.
- **Code Integrity Test:** Verify that no executable code has been added, removed, or changed in the printer since the last reference point.

## Manage security certificates

Use the following information to manage security certificates using the EWS.

### Introduction

Use the **Certificate Management** page to manage certificates for identification of the printer on a network and to encrypt data used by the printer.

The printer comes with a self-signed identity certificate and a self-signed Certificate Authority (CA) certificate. The printer also comes with three Root CA Certificates from popular Certificate Authorities. These Root CA Certificates can be used to authenticate popular email services including Gmail, Yahoo, and MS Office 365.

Certificates are managed from the **Security** tab > **Certificate Management** page of the EWS. The **Certificate Management** page contains the following tabs:

- **Certificate** tab – Use to import, view details, remove, export, and use for e-mailing signing with certificates
- **Certificate Validation** tab – Use to disable or enable validation of Kerberos server certificates with either the OCSP or CDP validation

The printer supports the following import formats for certificates:

- .DER (binary)
- .CER (binary or Base64)
- .PEM (Base64, installs single certificate)
- .PFX (identity certificate)
- .P7B (CA certificates only)

## Manage the installed security certificates

Refer to the following information to manage the installed security certificates using the EWS.



**NOTE:** The following procedures may also be performed from the **Authorization** page of the **Networking** tab.

### View the details of a certificate

Use the following steps to view the details of a certificate.

1. Using the top navigation tabs, click **Security**.
2. In the left navigation pane, click **Certificate Management**.
3. Select a certificate from the **Certificates** area.
4. Click **View Details**.

### Remove a certificate

Use the following steps to remove a certificate.

1. Using the top navigation tabs, click **Security**.
2. In the left navigation pane, click **Certificate Management**.
3. Select a certificate from the **Certificates** area.
4. Click **Remove....**
5. Confirm the removal operation in the warning dialog box that displays.

### Export a certificate

Use the following steps to export an identity certificate.

1. Using the top navigation tabs, click **Security**.
2. In the left navigation pane, click **Certificate Management**.
3. Select a certificate from the **Certificates** area.
4. Click **Export...**

When exporting an identity certificate on printers with firmware earlier than v23.4 using the **Security** > **Certificate Management** area, only the public key is exported. A private key can be exported with a certificate on printers with firmware earlier than v23.4 from the **Networking** > **Authorization** area.

When exporting an identity certificate on printers with firmware v23.4 or later, note the following:

- Only the public key can be exported for TPM-protected private keys.
- Private keys (for identity certificates) marked as exportable during import or generation require a password to be set when exporting.

### Use a certificate for email and network identity

Use the following steps to use a certificate for email signing.

1. Using the top navigation tabs, click **Security**.
2. In the left navigation pane, click **Certificate Management**.
3. Select the certificate from the **Certificates** area.
4. Click **Use for E-mail Signing**.



---

**NOTE:** If **Use for E-mail Signing** is grayed out, the selected certificate cannot be used for email signing or is already selected for email signing.

---

### Manage the installed remote app certificates

Learn how to manage the installed remote app certificates.

The **Manage Remote Apps** page is available only for printers that have FutureSmart 4 with firmware version 4.5 or later. Use the **Manage Remote Apps** page to install and manage the certificates for the remote apps that are available on mobile devices. When a certificate is installed, the remote app is added to a whitelist that allows it to be used on the printer.

The printer supports the following import formats for certificates:

- .DER (binary)
- .CER (binary or Base64)
- .PEM (Base64, installs single certificate)

### View the details of a remote app certificate

Use the following steps to view the details of a remote app certificate.

1. Using the top navigation tabs, click **Security**.
2. In the left navigation pane, click **Manage Remote Apps**.
3. Select a certificate from the **Registered Remote App Certificates** area.
4. Click **View Details**.

### Remove a certificate

Use the following steps to remove a certificate.

1. Using the top navigation tabs, click **Security**.
2. In the left navigation pane, click **Manage Remote Apps**.
3. Select a certificate from the **Registered Remote App Certificates** area.

4. Click **Remove....**
5. Confirm the removal operation in the **Confirmation Page** that appears by clicking the **Delete** button.

### Export a certificate

Use the following steps to export a certificate.

1. Using the top navigation tabs, click **Security**.
2. In the left navigation pane, click **Certificate Management**.
3. Select a certificate from the **Registered Remote App Certificates** area.
4. Click **Export....**

## Troubleshoot printers

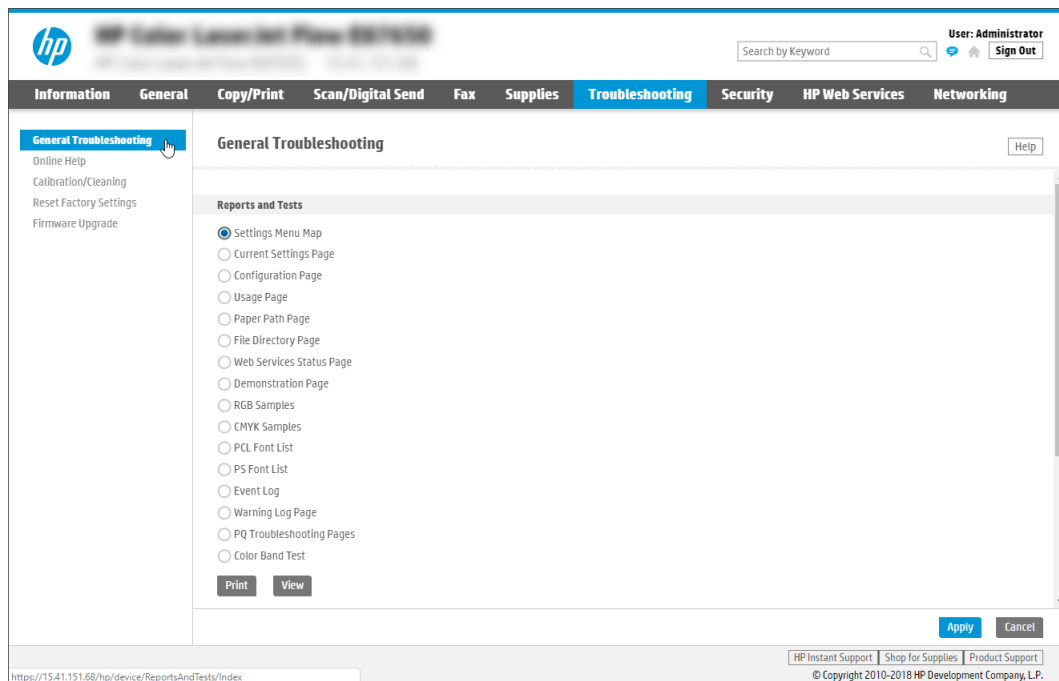
Use the following information to troubleshoot printer issues using the EWS.

### Begin troubleshooting

The **General Troubleshooting** page in the EWS can be used to begin the troubleshooting process and to gather information for HP technical support or your help desk.

1. Using the top navigation tabs, click **Troubleshooting**.
2. In the left navigation pane, click **General Troubleshooting**.

**Figure 71** General Troubleshooting page



3. Use the following options as appropriate:
  - **Reports and Tests** area: Select and print several types of reports and tests. Some reports can be viewed in the EWS by clicking the **View** button.

- **Fax Tools** area: Configure settings for fax troubleshooting (MFP and Digital Sender products only).
- **OXPd Troubleshooting** area: Select whether to enable the **Allow a Non-Secure Connection for Web Services** option (MFP and Digital Sender products only).
- **Auto Recovery** area: Select whether to enable the **Enable Auto Recovery** option.

## Retrieve diagnostic information

Use the **Diagnostics Page**, located in the **Troubleshooting** tab, to retrieve diagnostic data from the printer that will help HP technical support troubleshoot printer problems.

To view or print the Diagnostics Page:

1. In the EWS, click the **Troubleshooting** tab.
2. On the **General Troubleshooting** page, under the Reports and Tests section, select **Diagnostics Page**.
3. Click **Print** or **View**.

## Access and use the remote control-panel

Learn how to use the HP Remote Control-Panel feature in the EWS.

### Introduction

HP Enterprise printers have a Web-based solution to help remotely troubleshoot printing issues, such as paper jams. Users, IT departments, or help desk agents can use the Remote Control-Panel provided in the printer's Embedded Web Server (EWS).

This feature is available for HP Enterprise printers running FutureSmart firmware version 3.4 or later. To troubleshoot or manage the printer from a browser window on a desktop or laptop, log in to the EWS using an administrator password, and then launch the Remote Control-Panel. Use the Remote Control-Panel to perform the following tasks:

- Resolve printer errors or manage the printer remotely when there is no user at the control panel
- Remotely guide a user at the control panel in resolving an issue or show them how to use specific features

### Video overview


Click the link to view the video.






[View a video demonstration on how to remotely manage printers](#)

### Before you begin


Review the following items before using the HP Remote Control-Panel.

- Make sure you have the printer's IP address or host name.
  - **FutureSmart 3:** From the Home screen on the printer control panel, touch the Network icon  to display the IP address or host name.

- **FutureSmart 4:** From the Home screen on the printer control panel, touch the Information icon , and then touch the Ethernet icon  to display the IP address or host name.

 **NOTE:** This feature must be manually enabled for printers with FutureSmart 4. Navigate to the **Security** tab, and then select **Access Control**. Scroll down to the **EWS** area, and then select the **Remote Control-Panel** check box under **Device User**. Once enabled, **Remote Control-Panel** will be available on the **Information** tab.

- Make sure you have a supported printer running FutureSmart firmware version 3.4 or later.
- Make sure you have Administrator password credentials for the Embedded Web Server (EWS).

 **NOTE:** The Remote Control-Panel button on the **Information** tab will not be available until after an Administrator password is set in the EWS and the user is logged in using the administrator credentials. To set a password, if needed, click the **Security** tab, type credentials in the **Set the Local Administrator Password** box, scroll to the bottom of the page, and then click **Apply**. This provides security to prevent malicious use of the Remote Control-Panel.

The left navigation pane for the **Information** tab will look like the following when the Remote Control-Panel is available:

The screenshot shows the HP EWS interface. The top navigation bar includes tabs for Information, General, Copy/Print, Scan/Digital Send, Fax, Supplies, Troubleshooting, Security, HP Web Services, and Networking. The left sidebar lists various pages, with 'Remote Control-Panel' highlighted in a red box. The main content area shows the 'Device Status' page, which includes sections for 'Supplies' and 'Media'. The 'Supplies' section displays four cartridge levels: Yellow Cartridge (60%), Magenta Cartridge (50%), Cyan Cartridge (50%), and Black Cartridge (40%). Below this are Fuser Kit and Document Feeder Kit status bars. The 'Media' section contains a table with columns for Input/Output, Status, Capacity, Size, and Type.

Input/Output	Status	Capacity	Size	Type
Tray 1	Depleted	100 sheets	Any Size	Any Type
Tray 2	OK	550 sheets	Letter (8.5x11)	Plain
Standard bin	OK	250 sheets	N/A	N/A

- Make sure JavaScript is enabled in your web browser in order to use the Remote Control-Panel.

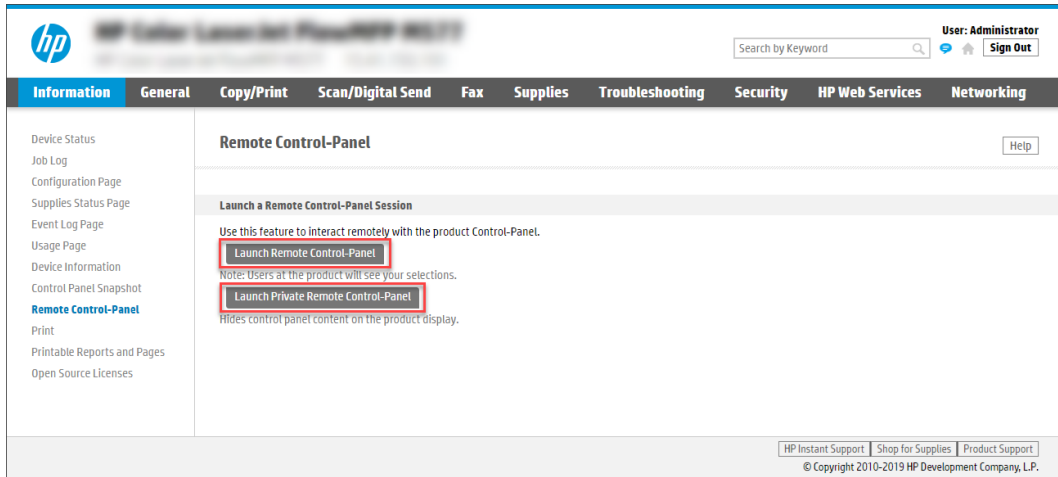
## Use the Remote Control-Panel

The Remote Control-Panel allows you to access the printer's control-panel interface from the EWS.

1. In the EWS, click the **Information** tab on the top navigation pane.

- In the left navigation pane, click **Remote Control-Panel**.

**Figure 7-2 Remote Control-Panel page**



- Choose the type of Remote Control-Panel to launch:

- Click **Launch Remote Control-Panel** to launch a remote control panel where the active control panel session is still visible at the printer. In this case, the password will not be visible, however, key presses will be visible at the printer.
- Click **Launch Private Remote Control-Panel** to launch a remote control panel where the remote session is hidden on the printer's display. The person at the printer will only see a black screen with a message that the device is being controlled by an administrator.

- Gain remote access to the control panel:

- To manage the printer remotely when there is no user at the control panel, you should be able to gain remote access immediately.
- To manage the printer when an unknown user is at the control panel, wait for the printer's activity timer to time out (when no longer in use).



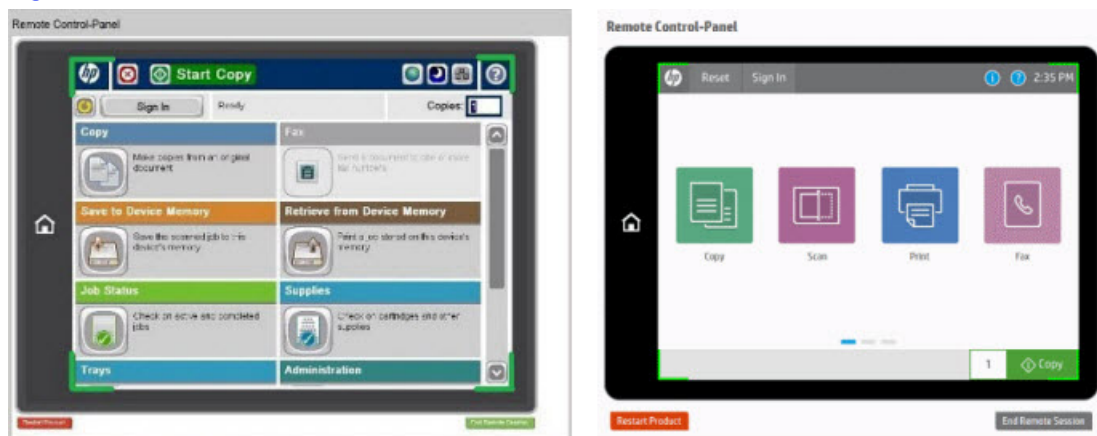
**NOTE:** When the **Requesting access** prompt displays on the control panel, the user can deny access to the remote user. This prevents a remote administrator from interrupting a local user's work inadvertently. If this happens, wait until the control panel is no longer in use.

- To help a known user at the control panel, ask the user to grant access by selecting **Allow** in the dialog prompt that displays on the printer's control panel.



**NOTE:** The user will also be able to interact with the control panel at the same time but will require confirmation from the administrator to return to the Home screen and will not be able to see administrator passwords entered during the session.

**Figure 7-3 Remote Control-Panel in the EWS (FutureSmart 3 / FutureSmart 4)**



**NOTE:** The green frame at the control panel (as shown in the images above) indicates that the printer is being remotely controlled.

5. From the Remote Control-Panel window (EWS), select any of the options normally available to the user interacting directly with the control panel. If a user is at the control panel, they can follow along during the remote session.
6. When finished, select **End Remote Session**, or select **Restart Product** to reboot the printer.

**NOTE:** If you do not end the session, the printer will warn the user at the control panel when the remote session has been inactive for 5 minutes, and then automatically disconnect the remote session 1 minute later.

## Remote Control-Panel FAQs (FutureSmart 4)

Review the frequently-asked questions about the Remote Control-Panel.

**Table 7-1 Remote Control-Panel FAQs**

Question	Answer
Is the communication between Client and Device encrypted (SSL)?	Yes. When Remote Control Panel is launched from the browser, a new window/tab is created that uses HTTPS to connect to the Embedded Web Server, regardless if the original connection was via HTTP or HTTPS. All communication between the remote control panel application and the device is via HTTPS.
What kind of encryption is used for the communication?	Encryption settings for all device web pages are configured under the <b>Network</b> tab on the <b>Secure Communication</b> page. This is where you can configure HTTPS related security settings.

**Table 7-1 Remote Control-Panel FAQs (continued)**

Question	Answer
How does HP ensure that an entered password in the remote panel is not viewable at the control panel?	<p>This depends on which type of remote control panel you launch.</p> <ul style="list-style-type: none"> <li> <b>Launch Remote Control-Panel:</b> This launches a remote control panel where the active control panel session is still visible at the printer. In this case, the password will not be visible, and is shown as dots, just like if you were at the printer. However, key presses will be visible at the device. It is possible for someone at the device to view active key presses as the password is entered.                     </li> </ul> <p>When the device is in use, a prompt is shown at the display when this type of remote control panel session is started. After the user at the device accepts the prompt, green angle brackets are shown in all corners of the display indicating the screen is being shared.</p> <ul style="list-style-type: none"> <li> <b>Launch Private Remote Control-Panel:</b> This launches a private remote control panel where the printer's control panel is "blacked out." The person at the device cannot see activity from the remote session and will only see a black screen with a message that the device is being controlled by a remote user. No key presses or other images will be visible at the device.                     </li> </ul>
Which feature is used to hide typing passwords for the Remote Control Panel?	HP recommends using a Private Remote Control-Panel session so that key presses are not visible on the local device screen.
Which programming language is used for the Web Application?	The remote control panel application is written in JavaScript. It communicates button clicks and mouse movements from the application running in the browser to the device.
What technology is used for streaming of the contents of the control panel?	The application polls for changes to the full-screen image on the device and receives PNG images to display to the user when the control panel image changes.
What happens with a logged-in Admin if the device loses its network connection?	<p>For a regular remote control panel session: The state of the device will not be affected. The current user will still be logged in.</p> <p>For a private remote control panel session: The current session will be reset (including logging out the current user) and the local device control panel will show the home screen.</p>
What happens if a private remote session loses the connection? Will the device stay in black-screen-mode?	No. The current user will be logged out and the device control panel will be reset to the home screen.

## Set up AutoSend of printer details to HP

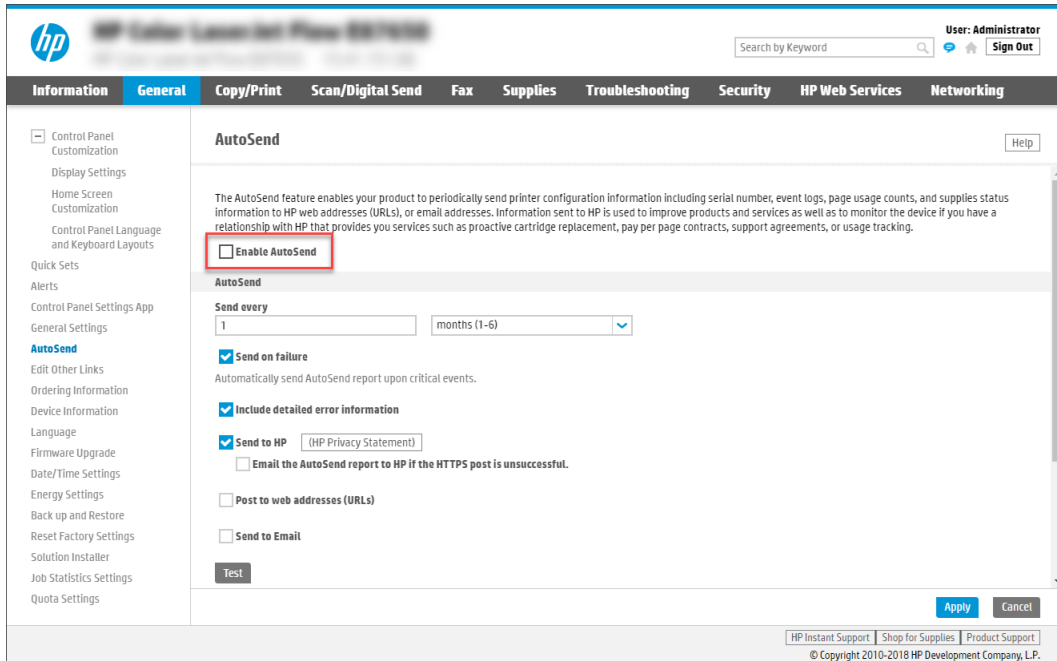
Learn how to set up the AutoSend feature in the EWS.

### Introduction

The **AutoSend** feature enables your printer to periodically send printer configuration information including serial number, event logs, page usage counts, and supplies status information to HP web addresses (URLs), or e-mail addresses.

This feature is disabled by default.


Figure 7-4 AutoSend page




## Before you begin

Administrators need the following information before beginning the configuration process:

- Administrative access to the printer
- DNS suffix (e.g., companyname.com)
- SMTP server (e.g., smtp.mycompany.com)

 **NOTE:** If you do not know the SMTP server name, SMTP port number, or authentication information, contact the e-mail/Internet service provider or system administrator for the information. SMTP server names and port names are typically found by doing an Internet search. For example, use terms like "Gmail SMTP server name" or "yahoo SMTP server name" to search.

- SMTP server authentication requirements for outgoing e-mail messages, including the user name and password used for authentication, if applicable.

 **NOTE:** Consult your e-mail service provider's documentation for information on digital sending limits for your e-mail account. Some providers may temporarily lock your account if you exceed your sending limit.

## Step one: Set up the AutoSend feature

Set up the AutoSend feature as follows.

### Enable AutoSend and choose settings

Use the following procedure to enable AutoSend and select the settings for how it will function.

1. Using the top navigation tabs, click **General**.
2. In the left navigation pane, click **AutoSend**.

3. Click the **Enable AutoSend** check box.



---

**NOTE:** Enabling this feature will also enable the **Data Collection** feature which enables your printer to automatically collect and analyze product data, etc. For more information, go to *Enable Data collection*.

---

4. In the **Send every** field, enter the frequency to send the information. Send information after a set number of days, weeks, or months, or after a set number of pages printed.
5. Select the method for sending the information. Select one or all of the following options:
  - **Send on failure:** Automatically send an AutoSend report when critical events occur
  - **Include detailed error information**
  - **Send to HP:** Upload the information directly to HP by using an Internet connection
  - **Post to web addresses (URLs):** Specify up to five URLs to post the information to
  - **Send to E-mail:** Send AutoSend information by email for up to five recipients, such as your reseller, local support person, or on-site IT support
6. Click **Test** to test your selections.
7. Click **Apply** to save the settings.

#### Configure an SMTP server for the Send to E-mail option

Learn how to configure an SMTP server for the AutoSend feature in the EWS.

#### Add an outgoing server

Use the following procedure to add and configure an outgoing SMTP server.

1. Click the **Add** button in the **Outgoing E-mail Servers (SMTP)** area.
2. On the **Outgoing E-mail Servers (SMTP)** page, select one of the following options and complete the steps:

#### Option one: Use a server already in use by another function

Use this option when SMTP is already configured by another app and does not include the **Automated e-mail** option.

1. Select **Use a server already in use by another function**, and then click **Next**.
2. Verify the information, and then click **Finish**.

#### Option two: I know my SMTP server address or host name

Use this option when you know the SMTP server address or host name.

1. Select **I know my SMTP server address or host name**, enter the SMTP server address in the field, and click **Next**.
2. Enter the **Server Name** and **Port Number**, and then click **Next**.



**NOTE:** In most cases, the default port number does not need to be changed.



**NOTE:** If you are using a hosted SMTP service such as gmail, verify the SMTP address, port number, and SSL settings from the service provider's Web site or other sources. Typically, for gmail,

the SMTP address is smtp.gmail.com, port number 465, and the SSL should be enabled. Please refer to online sources to confirm these server settings are current and valid at the time of configuration

---

3. On the **Server Authentication Requirements** page, select one of the following from the drop-down list:
  - Select **Use credentials of user to connect after Sign In at the control panel**, and click **Next** (MFP and network scanner printers only).
  - OR-
  - Select **Always use these credentials**, and enter a **Username** and **Password** in the fields. Click **Next**.
4. On the **Server Usage** page, select which of the following functions will send e-mail through the server:
  - **E-mail: Send scanned documents and job status notifications**
  - **Fax: send faxes when the fax send method is set to Internet Fax**
  - **Automated E-mails: device alerts sent to an administrator or archived faxes are examples of automated e-mails sent by this device**
  - **AutoSend: send device information to HP or other recipients**
5. On the **Summary and Test** page, review the settings. Enter an e-mail address into the **Send a test e-mail to** field, and click **Test** to test the configuration. Click **Finish** when done.

### Option three: Search network for outgoing e-mail server

Use this option to search for outgoing SMTP servers.



**NOTE:** This option finds outgoing SMTP servers inside your firewall only.

---

1. Select **Search network for outgoing e-mail server**, and then click **Next**
2. Select the appropriate server from the **Finding SMTP servers** list, and then click **Next**.
3. Set the basic information necessary to connect to the server, and then click **Next**.
4. On the **Server Authentication Requirements** page, select one of the following from the drop-down list:
  - Select **Use credentials of user to connect after Sign In at the control panel**, and click **Next** (MFP and network scanner printers only).
  - OR-
  - Select **Always use these credentials**, and enter a **Username** and **Password** in the fields. Click **Next**.
5. On the **Server Usage** page, select which of the following functions will send e-mail through the server:
  - **E-mail: Send scanned documents and job status notifications**
  - **Fax: send faxes when the fax send method is set to Internet Fax**

- **Automated E-mails:** device alerts sent to an administrator or archived faxes are examples of automated e-mails sent by this device
  - **AutoSend:** send device information to HP or other recipients
6. On the **Summary and Test** page, review the settings. Enter an e-mail address into the **Send a test e-mail to** field, and click **Test** to test the configuration. Click **Finish** when done.

## Step two: Set up the product email address

Set the e-mail address "From" for the E-mail Alerts sent from the printer.

Select **Use default address**, or select **Specify address** to add a specific e-mail address in the field that appears.

## Step three: Complete the setup

On the **Alerts** page, review the selected settings, and then click **Apply** to complete the setup.

## Reset printer settings

Use the **Reset Factory Settings** page, located in the **General** tab, to reset all of the printer settings back to the original defaults.

The **Reset Firmware** option erases all partitions, settings, installed solutions, job data, and logs on the disk drive. The firmware will not be erased. This allows the disk drive to be reformatted without having to download a firmware upgrade file to return the product to a bootable state.



---

**NOTE:** The **Reset Firmware** option is not available for all printer models.

The administrator password must be set for the **Reset Firmware** option to display on supported models.

---

## Back up and restore printer data

Use the **Back up and Restore** feature in the HP Embedded Web Server (EWS) to back up data on the printer or to restore data files from a previous backup.

### Introduction

The **Back up** creates a backup file of the current printer settings which allow the users to restore them later. This feature is useful if there are any issues with the printer after a firmware upgrade, or if the administrator wants to go back to the version of firmware the backup was created from (and to accomplish this with limited reconfiguration efforts).



---

**NOTE:** The backup can only be used on the same family or model of printer from which it was taken.

---


### Step one: Backup and restore data

Use the following steps to backup and restore data.

1. Using the top navigation tabs, click **General**.
2. In the left navigation pane, click **Back up and Restore**.
3. To perform a backup, select **Backup**, and then enter a path in the **UNC Folder Path** field to store the backup file. Do not include the file name in the **UNC Folder Path** field.

4. To perform a restore, select **Restore**, and then enter the path in the **Backup file to restore** field to point to the file to restore. Include the file name in the **Backup file to restore** field.

---

 **NOTE:** Clicking **OK** will perform the backup or restore. A progress bar displays, and then a message displays stating that the process is complete.

---


## Step two: Set up the Authentication Settings

The backup/restore files are saved as encrypted, .ZIP archives. The **Encryption Key** setting in the **Authentication Settings** area is used to encrypt the .ZIP archive.

Enter the following authentication credentials in the **Authentication Settings** area:

- **Encryption Key**
- **Windows Domain**
- **Username**
- **Password**

---

 **NOTE:** Clicking **OK** will perform the backup or restore. A progress bar displays, and then a message displays stating that the process is complete.

---

## Print tasks and printable reports

Learn about print tasks and printable reports in the EWS.

### Print files

Use the **Print** page, located in the **Information** tab, to upload a file from your hard drive and send it to the printer to be printed. The following file types are supported: .txt, .ps, .pdf, .pcl, .cht, .prn, .tiff, and .tif.

#### FutureSmart 4:

This feature must be manually enabled for printers with FutureSmart 4. Navigate to the **Security** tab, and then select **Access Control**. Scroll down to the **EWS** area, and then select the **Print** check box under **Device User**. Once enabled, **Print** will be available on the **Information** tab.

### Print from a USB flash drive

Learn how to print from a USB flash drive for either HP FutureSmart 3 or 4.

#### Introduction

This printer features easy-access USB printing, for quickly printing files without sending them from a computer. The printer accepts standard USB flash drives in the USB port near the control panel. It supports the following types of files: .pdf, .prn, .pcl, .ps, and .cht.

### Print USB documents from the printer control panel


Learn how to print USB documents from the control panel for either FutureSmart 3 or 4.

#### FutureSmart 3

Use the following steps to print to USB (FutureSmart 3).

1. Insert the USB flash drive into the easy-access USB port.


---

 **NOTE:** The port might be covered. For some printers, the cover flips open. For other printers, pull the cover straight out to remove it.


---

2. The printer detects the USB flash drive. Select the **OK** button to access the drive, or, if prompted, select the **Retrieve from USB** option from the list of available applications. The **Retrieve from USB** screen opens.
3. Select the name of the document to print.

---

 **NOTE:** The document might be in a folder. Open folders as necessary.

---


4. To adjust the number of copies, select **Copies**, and then use the keypad to change the number of copies.
5. Select the Start  button or press the **OK** button to print the document.

### FutureSmart 4

Use the following steps to print to USB (FutureSmart 4).

1. Insert the USB flash drive into the easy-access USB port.


---

 **NOTE:** The port might be covered. For some printers, the cover flips open. For other printers, pull the cover straight out to remove it.

---

2. From the Home screen on the printer control panel, select **Print**, and then select **Print from USB drive**.
3. Select **Choose**, and then select the document to print.

---

 **NOTE:** The document might be in a folder. Open folders as necessary.

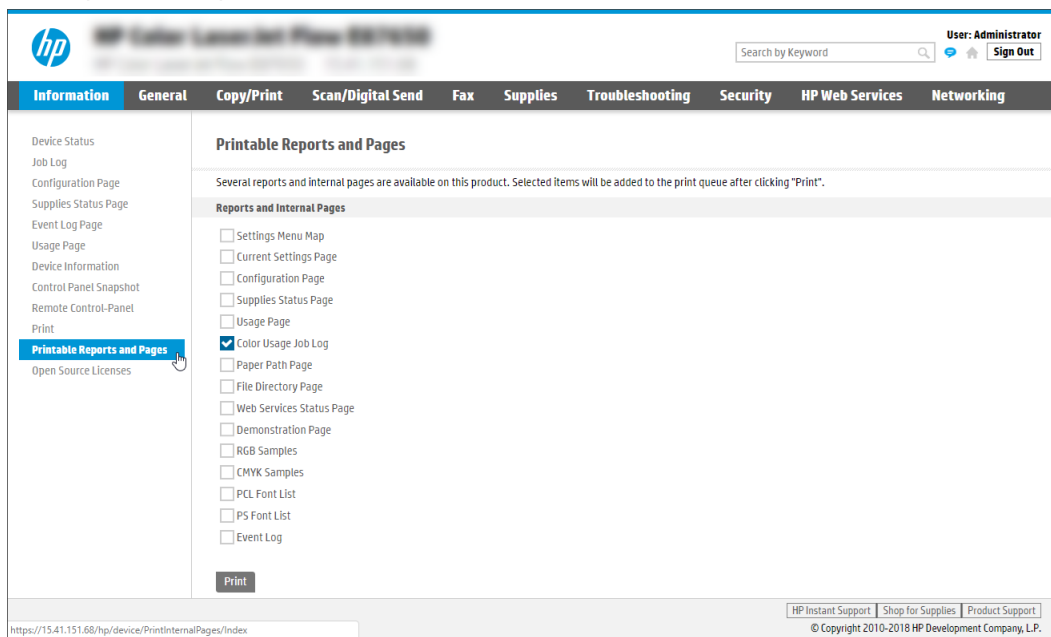
---

4. To adjust the number of copies, select the field for the number of copies. Use the keypad to enter the number of copies to print.
5. Select **Print** to print the document.

### Print reports

The **Printable Reports and Pages** page, located in the **Information** tab, provides a list of reports that can be printed. Select one or more reports, and then select **Print** to send these reports to be printed on the printer.

Figure 7-5 List of printable reports



## View printer information

Learn how to view information about the printer and the status of supplies in the EWS.

## View supplies status

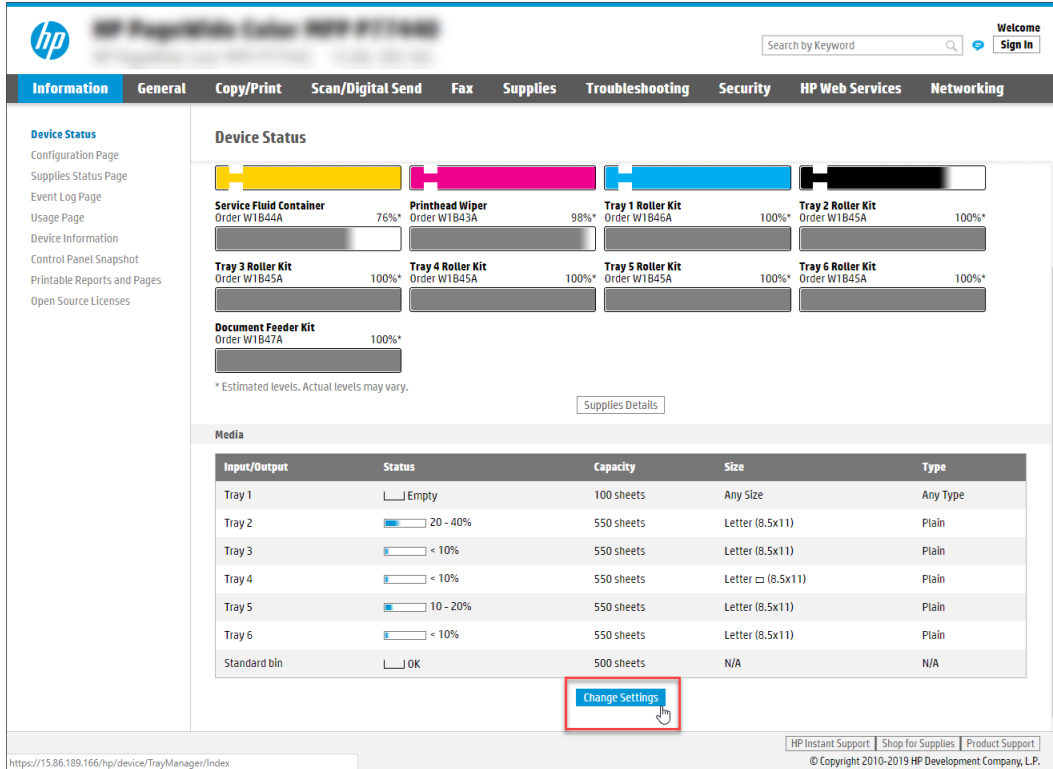
Use one of the following views in the EWS to monitor printer supplies status.

## Quick view of supplies and trays

The **Device Status** page is the first page that displays in the EWS. This page provides a quick view of the status of all of the print cartridges and other supplies. This page also displays how much paper remains in the paper trays and how each tray is configured.

To modify the tray settings, click **Change settings**. Change the settings as needed in the **Manage Trays** dialog.

Figure 7-6 Change Settings from the Trays area

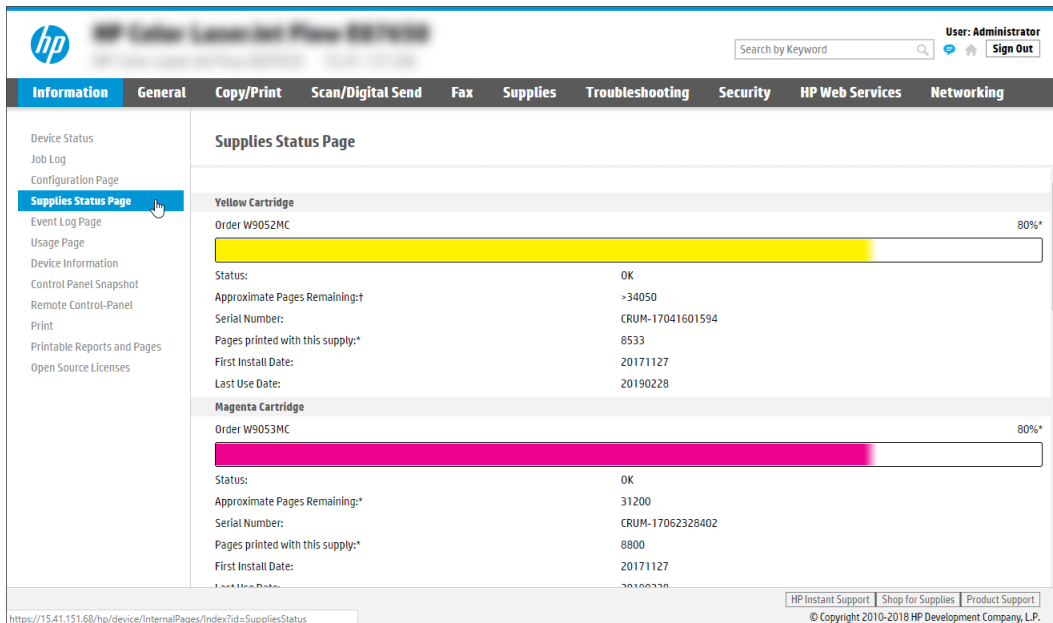


## Detailed view of supplies

The **Supplies Status Page** page, located in the **Information** tab, contains detailed information about all of the printer supplies.

This page includes a link to the [HP supply website](http://www.hp.com/go/recycle) and information on where you can recycle your supplies ([www.hp.com/go/recycle](http://www.hp.com/go/recycle)).

Figure 7-7 Supplies Status page



## View recent activities

Learn how to view the recent activities for a printer using the EWS.

## View print jobs

The **Job Log** page, located in the **Information** tab, provides a list of the jobs that have been printed.

### View additional information about a job

Use the following steps to view details about a job.

1. Select the job.
2. Click **View Details** at the bottom of the page.
3. To return to the **Job Log** page, click **Back**.

### Export the job list

Use the following steps to export the job list.

1. Click **Export** at the bottom of the page.
2. Select the **All jobs** or **Select a Job Type** option.
3. Select the **Text (tab delimited)(\*.txt)** or **CSV (comma delimited)(\*.csv)** option.
4. Click **Export**.
5. When the export is completed, click **Back** to return to the **Job Log** page.

## View printer activities and errors

The **Event Log Page** page, located in the **Information** tab, displays a list of all the printer activities and errors. Use this page to help troubleshoot printer problems. Each event has a link that takes you to the HP website for detailed troubleshooting help.

## View print/copy/scan/fax counts

The **Usage Page** page, located in the **Information** tab, provides a report on how many pages have been printed and how many copies, scans, and faxes have been created.

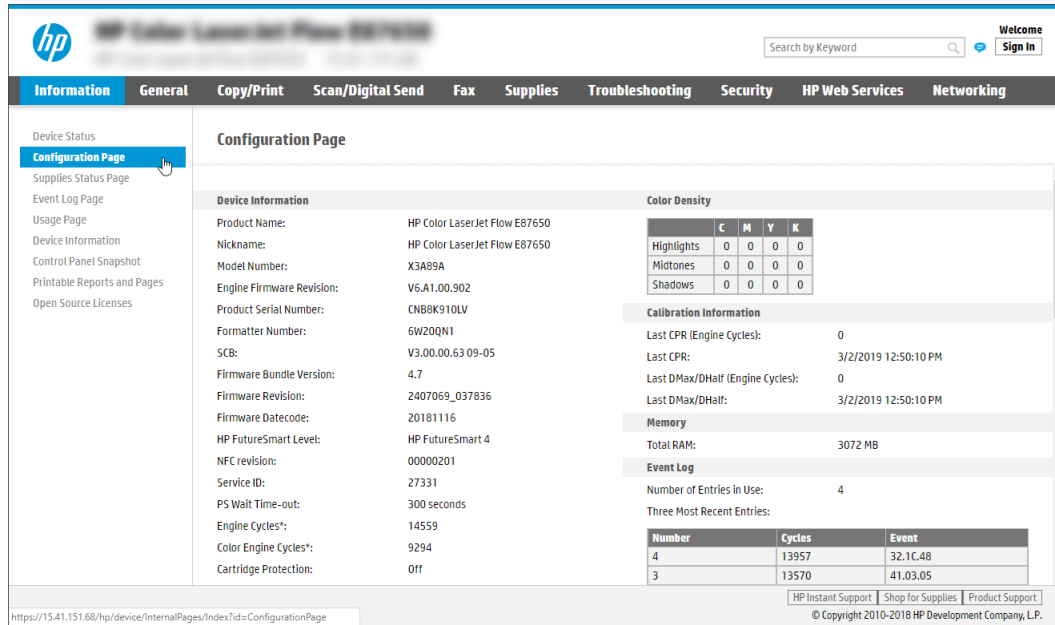
## View fax activities

Use the **Fax Activity Log** page, located in the **Fax** tab, to view statistics about the faxes received and sent from this printer.

## Look up the printer IP address and firmware version

The **Configuration Page** page, located in the **Information** tab, displays the contents of the Configuration Page report. This report includes useful information about the printer, such as the IP address and firmware version.

Figure 7-8 Configuration Page page



## Look up the list of open source programs used in the firmware

The **Open Source Licenses** page, located in the **Information** tab, provides a complete list of all of the open source programs that are used in the printer's firmware. Click on each program to see the full text of the license.

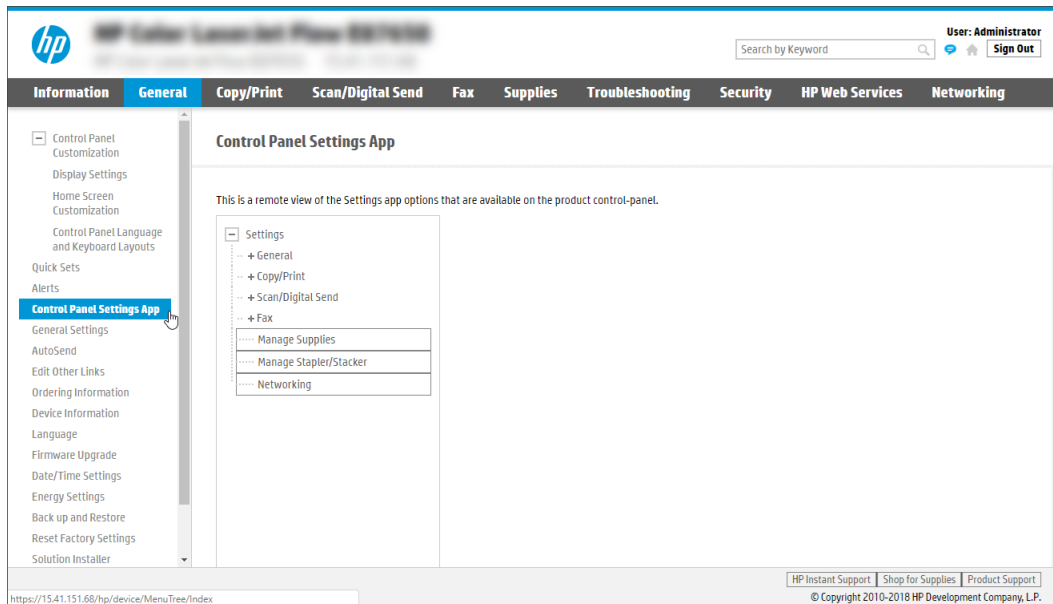
## View a snapshot of the control panel

The **Control Panel Snapshot** page, located in the **Information** tab, provides an image of what is currently displayed on the control panel.

## Use the remote view of Settings apps on the control panel

The **Control Panel Settings App** page, located in the **General** tab, displays a remote view of the Settings app options that are available on the product control-panel.

Figure 7-9 Control Panel Settings App page



## View other printer information

The **Device Information** page, located in the **Information** tab, displays unique information about the product.

For more information about changing what displays on this page, see the **Device Information** page on the **General** tab.

## Update the firmware

Learn how to update the printer firmware using a USB flash drive or the EWS.

### Introduction

Similar to service packs for operating systems, HP provides firmware updates for printers to help address any known issues and add new features throughout the support life of the printer.

To make sure the printer is up to date, HP recommends updating the firmware for HP Enterprise and HP Managed printers. See [Applicable printers on page 237](#).

### Before you begin


Before upgrading firmware, make sure that any solutions used with the HP printer(s) will support the new firmware version and review these requirements:

**NOTE:** Enhanced security features and settings implemented in recent firmware releases coupled with device resets might block the installation of some solutions. For more information, see the white paper [Overview of Secure by Default Settings for Solutions](#).

- A firmware update requires a network connection or USB flash drive, and internet access.
- This printer cannot be updated using FTP, LPR, or Port 9100 methods.

- If you have a third-party solution, contact the vendor to make sure that the latest firmware version is compatible with the solution.

---

 **NOTE:** If device resets are performed as part of the update process, these solutions might need to be reinstalled or reconfigured.

---

- If a solution also needs to be updated to support the new firmware, HP recommends updating the solution first *before updating the printer*.
- A firmware update can require 10 to 30 minutes or more depending on the computer speed and connection type.
- Remote firmware downgrades are not supported. For more information, see [About firmware downgrades on page 237](#).
- The steps in this document apply to only to HP Enterprise and HP Managed printers. See [Applicable printers on page 237](#).
- You might need administrator privileges or a passcode to perform these steps.

## Update the firmware

There are four supported methods to perform a firmware update on this printer depending on whether the printer is in a ready state or an error state.


If the printer is in an error state, use *Method three: USB flash drive –Preboot menu* to update the firmware.

### Method one: Embedded Web Server (ready state, remotely)

Learn how to perform a firmware update using the Embedded Web Server (EWS).

Watch the video or follow these steps to update the firmware **remotely** on a *single* printer connected to a network:

---

 **NOTE:** These steps should only be used if the printer is able to boot to a 'Ready' state.


---

 [View a video on how to update from FutureSmart 3 to 4](#)

 [View a video on how to update from FutureSmart 4 to 4.x](#)

1. Go to the [Latest Firmware Versions](#) document, determine the latest version of firmware available for the printer, and compare it with the version installed on the printer. To view the installed version, see [Print a configuration page on page 238](#).
2. Use the links in the [Latest Firmware Versions](#) document to go directly to the printer download page, download the firmware, and then extract all files.

---

 **NOTE:** The firmware file for HP FutureSmart is in the format "xxxxxxx.bdl" where "xxxxxxx" indicates the firmware file name and ".bdl" is the file extension.

---


3. Make sure the printer is On and in a ready state.
4. Open the Embedded Web Server (EWS).
  - a. Open an internet Web browser.

- b. Type the hostname or IP address of the printer in the URL address field.

To obtain the printer's IP address, click the information icon on the control panel or print a Configuration page. For instructions, see [Print a configuration page on page 238](#).

- c. Press `Enter`.
5. Select the **General** tab.
6. In the left pane, select **Firmware Upgrade**.
7. Select **Choose File**.

---


 **NOTE:** If an **Administrator password must be set** warning message displays, select the **Security** tab, select the **General Security** option in the left pane, and then under the **Set the Local Administrator password** section, reset the password.

---

8. Browse to the location where the firmware files were extracted and select the **.bdl** file.  
  
If there is more than one **.bdl** file on the storage device, make sure to scroll and select the correct file for the printer and firmware version.

9. Select **Install**, and then wait for the update process to complete.

---

 **NOTE:** Do not close the browser window or interrupt communication until the EWS displays the confirmation page. An update could take up to 30 minutes or more to complete.

---

10. On the EWS confirmation page, select **Restart Now**, or wait for the printer to reboot automatically (varies depending on the firmware version). If the printer does not reboot automatically, turn the printer Off and then On again.

The printer will automatically reboot unless the firmware is being downgraded. If downgrading firmware, select the **Rollback** option.

11. After the printer is back online, check the **Configuration Page** in the EWS or print a Configuration Page and make sure that the new firmware has been installed.


If when updating the firmware using the EWS, the update process hangs or you receive an incorrect/corrupt file error, the printer should still function but the firmware update is not complete. Use the *USB flash drive - Maintenance menu* method to try again to update the firmware.

## Method two: USB flash drive - Maintenance menu (ready state, locally)

Learn how to perform a firmware update from the control panel **Maintenance** menu.

Watch the video or follow these steps to update the firmware directly **at the control panel** on a *single* printer using a portable USB flash drive.

---

 **NOTE:** These steps should only be used if the printer is able to boot to a 'Ready' state.

---

 [View a video of how to update from FutureSmart 3 to 4 using the control panel](#)

 [View a video of how to update from FutureSmart 4 to 4.x using the control panel](#)

1. Go to the [Latest Firmware Versions](#) document, determine the latest version of firmware available for the printer, and compare it with the version installed on the printer. To view the installed version, see [Print a configuration page on page 238](#).

2. Use the links in the [Latest Firmware Versions](#) document to go directly to the printer download page, download the firmware, and then extract all files.



---

**NOTE:** The firmware file for HP FutureSmart is in the format "xxxxxxx.bdl" where "xxxxxxx" indicates the firmware file name and ".bdl" is the file extension.

---

3. After extracting all files, find the .bdl file.
4. Copy the .bdl file to a portable USB flash drive.



---

**NOTE:** USB flash drives in a format other than Fat32, or with a CD formatted partition, might not be recognized by the printer. You might need to try a different USB flash drive.

---

5. Make sure the printer is On and in a ready state.
6. On the printer control panel, navigate to the USB Firmware Upgrade option using the following steps:
  - **FutureSmart 3:** From the Home screen on the printer control panel, scroll to and select the [Device Maintenance](#) menu.
  - **FutureSmart 4:** From the Home screen on the printer control panel, select the [Support Tools](#) menu.
7. Open the [Maintenance](#) menu.
8. Open the [USB Firmware Upgrade](#) menu.
9. Insert the USB flash drive with the .bdl file on it into the USB port on the *front* of the control panel.



---

**NOTE:** If the message **No USB Thumbdrive Files Found** displays on the control panel, make sure that the .bdl file is saved to the main directory and is not inside a folder. If the message persists, try using a different USB flash drive.

---

10. Select the .bdl file, and then select [OK](#) or [Upgrade](#).



---

**NOTE:** If there is more than one .bdl file on the storage device, make sure to select the correct file for the printer and firmware version.

---

11. Select [OK](#) or [Install](#) (depending on the firmware version).
12. Select [Upgrade](#), [Reinstall](#), or [Downgrade](#) depending on the task you are performing.
13. Wait for the upload to complete. When the upload is complete, the printer will reboot automatically and start the update process.



---

**NOTE:** Do not interrupt the firmware update process. An update could take up to 30 minutes or more to complete.

---


14. Wait for the update to complete and when the printer returns to a Ready state, print a Configuration Page.
15. On the Configuration Page, make sure that the new firmware version is installed.

### Method three: USB flash drive - Preboot menu (error state, locally)

Learn how to perform a firmware update from the control panel **Preboot** menu.

Follow these steps to update the firmware directly **at the control panel** on a *single printer* when the printer is in an error state.


---

 **NOTE:** Only use these steps if the printer will not boot to a 'Ready' state unless otherwise recommended.

---

1. Go to the [Latest Firmware Versions](#) document, determine the latest version of firmware available for the printer, and compare it with the version installed on the printer. To view the installed version, see [Print a configuration page on page 238](#).
2. Use the links in the [Latest Firmware Versions](#) document to go directly to the printer download page, download the firmware, and then extract all files.


---

 **NOTE:** The firmware file for HP FutureSmart is in the format "xxxxxxx.bdl" where "xxxxxxx" indicates the firmware file name and ".bdl" is the file extension.

---

3. After extracting all files, find the .bdl file.
4. Copy the .bdl file to a portable USB flash drive.

---

 **NOTE:** USB flash drives in a format other than Fat32, or with a CD formatted partition, might not be recognized by the printer. You might need to try a different USB flash drive.

---

5. Turn the printer Off and then On. If the error persists, continue to the next step.
6. Turn the printer Off.
7. On the control panel, open the Preboot menu.
  - Turn the printer On, and when the HP logo displays on the control panel and all three Ready, Data, and Attention LEDs illuminate solid, press **X**.

OR

  - Turn the printer On, and when **1/8** displays under the logo, press the HP logo in the middle of the screen.

8. Scroll to and select [Administrator](#).


---

 **NOTE:** If the [Administrator](#) menu is locked, login using administrator credentials.

---

9. Scroll to and select [Download](#).
10. Insert the USB flash drive with the .bdl file on it into the USB port on the *front* of the control panel (remove the seal if necessary).


---

 **NOTE:** If the message **No USB Thumbdrive Files Found** displays on the control panel, make sure the .bdl file is saved to the main directory and is not inside a folder. If the message persists, try using a different USB flash drive.


---

11. Scroll to and select [USB Thumbdrive](#).
12. Scroll to and select the .bdl file.

---

 **NOTE:** If there is more than one .bdl file on the storage device, make sure to scroll to and select the correct file for the printer and firmware version.

---

13. Select **OK** and wait for the upload to complete.
14. When **Complete** displays on the control panel, select the back arrow  until **Continue** displays.
15. Select **Continue**. The printer will automatically reboot and start the update process.



---

**NOTE:** Do not interrupt the firmware update process. An update could take up to 30 minutes or more to complete.

---

16. Wait for the update to complete and when the printer returns to a Ready state, print a Configuration Page.
17. On the Configuration Page, make sure that the new firmware version is installed.

If a **Disk Full** message displays when using this method, contact the HP support center in your country/region to help troubleshoot the issue.

### Method four: Web Jetadmin (ready state, multiple printers at one time)

Follow these steps to update the firmware remotely for a single printer or **multiple printers at one time** using HP Web Jetadmin 10.4 SR2 or newer.

The duration of these steps varies depending on the printer firmware file size and server capacity. Even if HP Web Jetadmin is installed on a high-end server, HP recommends that you keep other HP Web Jetadmin tasks to a minimum while any firmware upgrades are running because it is a resource-intensive operation.



---

**NOTE:** These steps should only be used if the printer is able to boot to **Ready**.

---

1. Make sure you have administrator privileges or a passcode available.
2. Connect the client machine to the internet and to the network.



---

**NOTE:** Only the client machine needs web access through a browser.

---

3. Start Web Jetadmin.
4. Click **Device Management**.
5. Click **Firmware** and click **Repository**.
6. Download the new firmware files.



---

**NOTE:** If the client PC does not have internet access, the firmware files can also be downloaded from HP.com to a local PC and then transferred to the client machine. After transferring the files to the client machine, see [Manually import firmware files into WJA on page 236](#).

---

- a. In the upper right side of the screen, click **Get images**.
- b. If prompted to check HP.com, click **OK**. The Get Firmware Images wizard opens.
- c. Use the Quick Device Discovery section in the lower-left of the screen to search for printers by IP address. This will highlight the printer in the device list. You can also sort the device list by clicking on a column name at the top such as **Models**.

- d. Press **Ctrl + Click** to select each printer until all printers are selected and click **Next**.



---

**NOTE:** Make sure to select specific printers in this step otherwise all firmware image files for all HP printers will be retrieved which will take a long time and impact server space.

---

- e. Browse to the location on the client machine where you want to temporarily download the firmware and click **Next**.
- f. Make sure the firmware version is correct and click **Get images** to automatically locate the latest firmware versions on the Web.
- g. Wait for the firmware images for the selected printers to download from the Web.
- h. Make sure the **Import firmware images** checkbox is selected in the Get Firmware Images wizard and click **Done**.

The Import Firmware Images wizard opens.

7. Import the new firmware files into WJA.



---

**NOTE:** If the client PC does not have internet access, see [Manually import firmware files into WJA on page 236](#).

---

- a. Select the images to import (indicated by a **No** value in the **Repository** column) and click **Next**.
- b. Confirm the selected images and click **Import**.
- c. Wait for the firmware to import into the Web Jetadmin repository.
- d. After the import completes, click **Done** to close the Import Firmware Images wizard.
- e. To check the current version of firmware installed against newer versions available, click **All Devices**, and then check the **Printer Firmware - Severity** column. A red 'X' indicates that the firmware needs to be updated.

8. Update the firmware from Web Jetadmin for multiple printers at one time.



---

**NOTE:** You can also schedule a firmware update for a later time or setup automated firmware updates. for instructions, see [Set up automated firmware updates for WJA \(optional\) on page 237](#).

---

- a. In the Repository, click **Upgrade Firmware**. The Upgrade Firmware wizard opens.
- b. Select the **Device Firmware** option and click **Next**.



---

**NOTE:** To schedule the update for a later time, click the **Schedule firmware upgrade** check box.

---

- c. Click the Device Model header to sort the printer list alphabetically and then use the arrow button to add the printer(s) you want to update to the right pane. When all printers are selected, click **Next**.
- d. Select the firmware version from the **New Version** drop-down list and click **Next**.
- e. Click **Upgrade**.

9. Wait for the updates to complete and the printer(s) to reboot.



**NOTE:** Do NOT interrupt or turn the printer off during the update process. When the update is complete, the printer will automatically reboot. If the firmware update process fails or is interrupted for reasons such as a power outage, it can be completely recovered by running the firmware download again and reinitiating the download. Web JetAdmin will display a notification with information about the failure and a link to retry the process.

10. When the printer returns to a `Ready` state, make sure that the new firmware version is installed.
  - a. Click **All Devices**.
  - b. Under the **Printer Firmware - Severity** column, a green checkmark indicates that the firmware is up to date.



**NOTE:** If you did not retrieve and import images or forgot to check the **Import firmware images** check box, this might not be the latest version available. Click the **Import** button to import files already on the client machine.



**NOTE:** Item count listed under the **Printer Firmware - Available** in repository column only indicates whether or not firmware has been downloaded for that printer. It might still need to be imported into the repository.

- For more information on how to certify images, see *HP Web Jetadmin - User Guide* on the web page [HP Web Jetadmin Software - Manuals](#), or use the HP Web Jetadmin help ([http://WJA\\_IP:8000/WebJetadmin/Help/en/Common/dm\\_fwupgrade\\_available\\_editproperties.html](http://WJA_IP:8000/WebJetadmin/Help/en/Common/dm_fwupgrade_available_editproperties.html) where WJA\_IP is the IP address of the WJA server).
- For information on how to determine newer qualified firmware files, or for other detailed ways to update the firmware using Web Jetadmin, see *HP Web Jetadmin - Upgrading Firmware (white paper)* on the web page [HP Web Jetadmin Software - Manuals](#).
- For new releases of WJA and release notes, go to [www.hp.com/go/wja](http://www.hp.com/go/wja).

### Manually import firmware files into WJA

To manually import firmware files into WJA, follow these steps:



**NOTE:** The following steps are typically used to import firmware files in WJA when the client PC does not have internet access (for example).

1. Start Web Jetadmin.
2. Click **Device Management**.
3. Click **Firmware** and click **Repository**.
4. Click **Import**.
5. Browse to the location where you saved the firmware, select the images to add to the repository, and then click **Next**.



**NOTE:** The firmware file for HP FutureSmart is in the format "xxxxxxx.bdl" where "xxxxxxx" indicates the firmware file name and ".bdl" is the file extension.

6. Select the images to import (indicated by a **No** value in the **Repository** column) and click **Next**.
7. Confirm the selected images and click **Import**.

8. After the import completes, click **Done**.
9. Wait for the firmware to import into the Web Jetadmin repository and click **Done**.

### Set up automated firmware updates for WJA (optional)

To set up automated firmware updates from WJA, follow these steps:

To set up automated firmware updates, set a tag for either the qualified version or the latest version of firmware, and then assign a policy to a group of printers for which you want to automatically update firmware.

1. Select **Edit properties**, type a **Description** such as `FutureSmart FW version 3`.



---

**NOTE:** If you do not want to use the latest version of firmware and only want to use a known version that has been tested with the fleet, select the **Qualify image** check box and click **OK**.

---

2. Click **All Devices**.
3. Use `Ctrl + Click` to select a group of printers, right-click and select **Add devices to new group**.
4. Type a group name and click **Next**.
5. Right-click the group name and select **Edit group policies**.
6. Click **Add**.
7. Select the policy option **Upgrade Printer firmware**, select the trigger option **Devices added to group**, select the policy action **Update to latest version** or **Update to qualified version**, and then click **Close**.
8. Click **Next** and click **Save Policies**.

### About firmware downgrades

If you attempt to downgrade the firmware from a remote location to a version older than FutureSmart Version 4, the downgrade will fail and you will receive a `99.02.32` control panel error and a **33.05.09** event log.

This is due to a new security feature that requires someone to be present at the printer in order to perform a firmware downgrade and prevents HP SureStart printers from being downgraded remotely. For more information about this feature, go to [Embedded Security features](#).

HP recommends using the latest firmware available but if a downgrade from *HP FutureSmart 4* to *HP FutureSmart 3* is absolutely necessary, then use the **Preboot** menu and avoid any errors.



---

**NOTE:** If you downgrade the printer firmware, all solutions, stored jobs, and current settings will be lost. The machine will be reset back to factory settings.

---

### Applicable printers

This firmware update information applies to the following printer models:

- HP LaserJet Enterprise
- HP LaserJet Managed
- HP Officejet Enterprise
- HP PageWide Enterprise


- HP PageWide Managed

For an older small business HP LaserJet printer, use the WJA method or go to [HP Laserjet - Update the firmware](#).

For an HP LaserJet Pro printer, use the WJA method or go to [HP Laserjet Pro - Update the firmware](#).


## Print a configuration page

To determine the current firmware version that is installed on the printer, print a configuration page using one of the methods below.

 **NOTE:** If the printer is in an error state, use *Method three: USB flash drive –Preboot menu* to update the firmware.

### Method one: Printer control panel

Follow the steps below to print a configuration page from the printer control panel.

 **NOTE:** The steps vary according to the control panel.

**Table 7-2** Control panels

Firmware Version	Control panels
FutureSmart 3	
FutureSmart 4	

### FutureSmart 3

Use the following steps to locate the firmware version and date (FutureSmart 3).

1. From the Home screen on the printer control panel, scroll to and select the [Administration](#) button.
2. Open the following menus:
  - a. [Reports](#)
  - b. [Configuration/Status Pages](#)
3. Select the [Configuration Page](#) option.

4. Select [Print](#) to print the configuration page.
5. On the Configuration Page, look in the **Device Information** section for the Firmware Revision and Firmware Datecode similar to the following example:
  - **Firmware Revision:** 2131029\_189663 (version installed)
  - **Firmware Datecode:** 20110811 (version date)

## FutureSmart 4

Use the following steps to locate the firmware version and date (FutureSmart 4).

1. From the Home screen on the printer control panel, scroll to and select [Reports](#).
2. Select [Configuration/Status Pages](#).
3. Select [Configuration Page](#).
4. Select [Print](#) to print the configuration page.
5. On the Configuration Page, look in the **Device Information** section for the Firmware Revision and Firmware Datecode similar to the following example:
  - **Firmware Revision:** 2131029\_189663 (version installed)
  - **Firmware Datecode:** 20110811 (version date)

## Method two: Embedded Web Server (EWS)

Follow the steps below to print a configuration page from the Embedded Web Server (EWS).

1. From the EWS home page, select the **Information** tab.
2. Select **Printable Reports and Pages** from the left navigation pane.



---

**NOTE:** If the **Printable Reports and Pages** menu is locked, login using administrator credentials.

---

3. Select **Configuration page** and select **Print**.
4. On the Configuration Page in the **Device Information** section, locate the Firmware Revision and Firmware Datecode similar to the following example:
  - **Firmware Revision:** 2131029\_189663 (version installed)
  - **Firmware Datecode:** 20110811 (version date)

## Set up and use HP Web Services

The **HP Web Services** tab provides access to the HP Web Services setup parameters and Web proxy settings on the HP Jetdirect print server. For more information, click the **Help** link located in the upper-right corner of the page.

## 8 Use EWS Online Help

The EWS **Help** feature provides links to web-based help pages.

For more information about a specific page in the EWS, click the **Help** link located in the upper-right corner of the page.


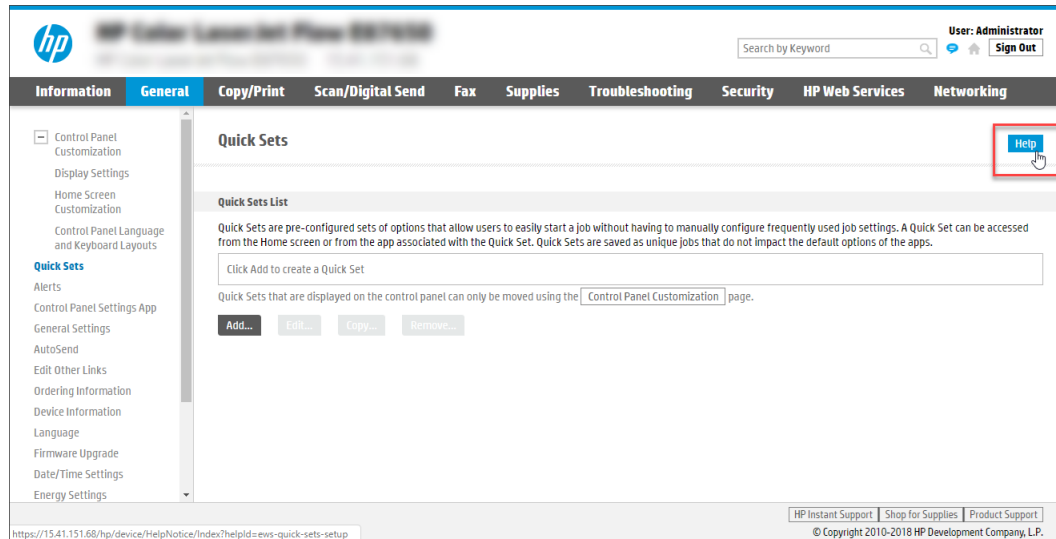
 **NOTE:** Some pages in the EWS do not have a **Help** link.

Figure 8-10 EWS Help link



When you click **Help**, you might see a notice that information will be sent to HP to connect to the correct help page. Click **Continue** to connect to the requested help page. Click **Cancel** if you do not wish to send information to HP.

For users signed in as an administrator, Help links can also be configured to show in control panel event details and the EWS Event Log. For more information, see [Configure the EWS Help options on page 32](#).