

# Enabling HP cloud connection using the MPS Printer Onboarding tool



To enable your printer to complete the onboarding process for Workforce Experience, you first need to connect the printer to the HP cloud by enabling HP cloud connection on the printer (known as web services on some printers).

For an individual printer, you can connect to the printer's embedded web server to enable HP cloud connection/web services manually. However, if you need to enable this setting on multiple printers with the same admin credentials, you can use the MPS Printer Onboarding tool. This tool can discover printers on the internet and, if provided with the correct credentials, modify the printer settings to enable HP cloud connection/web services.

The MPS Printer Onboarding tool can discover printers by hostname or IP address. The easiest way to use the tool, and the method described in this guide, is to provide a range of IP addresses. Once you provide the first and last IP addresses in a range, the tool attempts to contact all the inclusive IP addresses and determines whether each contacted device is a valid HP printer that can be onboarded to Workforce Experience.

## Before you begin

To enable HP cloud connection/web services, the MPS Printer Onboarding tool must be able to discover your printer(s) on the Internet as well as access and modify the printer settings. Before using the tool, you should ensure that all printers are discoverable and that the tool can perform the necessary tasks.

- **Network connectivity:** Before using the MPS Printer Onboarding tool, ensure that all printers are powered on and connected to the internet, either over Wi-Fi or ethernet.
- **Printer Identification:** To enable the MPS Printer Onboarding tool to discover your printers, you'll need to provide the range of IP address it can search. Before using the tool, make sure you have the range of addresses for your fleet available.
- **Proxy information:** If your printers are connected to the internet through a proxy server, ensure that you have the proxy information, including the Proxy hostname or IP address, the port, and the proxy server username name and password. The tool lets you enter your proxy server information, which it then uses when attempting to connect to every discovered printer.
- **Printer admin credentials:** To enable HP cloud connection/web services for each printer, the MPS Printer Onboarding tool needs to access the printer settings. HP expects that these settings are password protected on each device to prevent unauthorized changes. The tool allows you to supply the access credentials so that it can access and modify the printer settings as necessary.

**Important!** The MPS Printer Onboarding tool operates on the assumption that all printers in your fleet have been secured using the same username and password; the tool only allows you to enter a single Admin username and password, which it uses to connect to every discovered printer. If a printer has a different set of admin credentials, the tool will be unable to enable HP cloud connection/web services for that printer.

# Downloading the MPS Printer Onboarding tool

If you have not already downloaded the MPS Printer Onboarding tool via the Workforce Experience portal, you can download it [here](#).

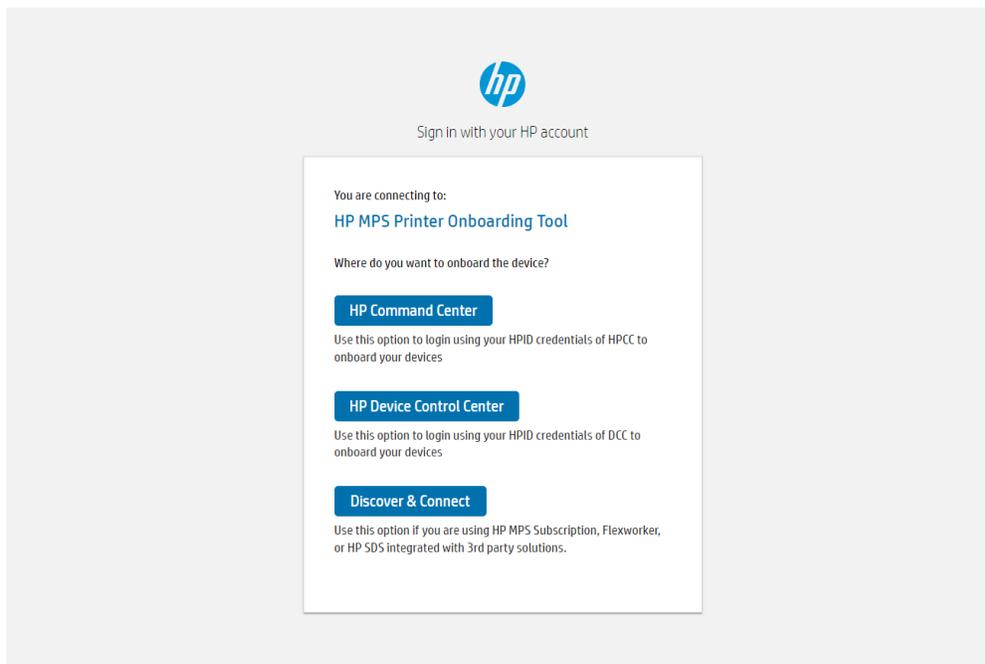
## Using the MPS Printer Onboarding tool

To enable web services using the MPS Printer Onboarding tool:

1. On your computer, navigate to the folder where you downloaded the MPS Printer Onboarding tool and double-click the following file to install and run the tool:

`hp-mps-printer-onboarding-tool-<version>-<platform>.exe`

2. For the onboarding method, choose **Discover & Connect**.



The MPS Printer Onboarding tool Devices page appears.

- On the Devices page, from the list on the left, select **IP Range Discovery**.

- IP Range Discovery:** Enter the beginning and ending IP addresses of a range.

- If necessary, set the SNMP version and credentials:
  - Select the SNMP Version toggle between v1/v2 and v3.
  - Select **Configure** to change the credentials:
    - If you selected SNMP v1/v2, set the following value:

Setting	Description
<b>Community Name</b>	The community string (password) used by the printer to restrict access to the device.

- If you selected SNMP v3, set the following values:

Setting	Description
<b>Username</b>	The security username.
<b>Context Name</b>	The context string (password) used by the printer to restrict access to the device.
<b>Auth Protocol</b>	The authentication protocol used by the device. You can choose either <b>MD5</b> or <b>SHA</b> .
<b>Auth Key</b>	The password used for authentication purposes.
<b>Privacy Protocol</b>	The privacy protocol used by the device. You can choose either <b>DES</b> or <b>AES</b> .
<b>Privacy Key</b>	The password used for privacy purposes.

- Click **Discover**. The tool attempts to contact each device in the specified range to determine if:
  - it is reachable
  - it is a printer
  - It is running compatible firmware.

After some time, the tool displays the results in the lower portion of the window.

Devices(101)		Device discovery results		Show all devices		Show valid device only		34	67		
<input type="checkbox"/>	Host Name/IP ...	Re...	Is ...	Model	Serial Number	Firmware Check	Firmware	Firmware Date			
<input type="checkbox"/>	123.45.67.136	✓	✓	HP Officejet Pro X...	CN28L7P029	✓ Good	LNP1CN1548AR	20151124			
	123.45.67.137	✓	✗	NA	NA	✗ Not Supported	NA	NA			
<input type="checkbox"/>	123.45.67.138	✓	✓	HP PageWide MF...	MY7335E003	✓ Good	LIMOFWMP2A006...	20220617			
<input type="checkbox"/>	123.45.67.139	✓	✓	HP Color LaserJet...	MTFMB10031	✓ Good	2504171_023881	20220213			
<input type="checkbox"/>	123.45.67.140	✓	✓	HP OfficeJet Pro ...	TH2AR1Z260	✓ Good	6.26.0.4985e697...	202408050520			
	123.45.67.141	✓	✗	NA	NA	✗ Not Supported	NA	NA			
<input type="checkbox"/>	123.45.67.142	✓	✓	HP LaserJet color...	MX2CD7B0PG	✓ Good	2411226_066602	20230202			
	123.45.67.143	✓	✓	HP LaserJet CP15...		✗ Not Supported		20170201_0559			

**Note:** You can display only valid printers in the Results list by toggling the switch above the list to **Show valid devices only**.

- In the Results list, select the printer(s) you want to enable HP cloud connection/web services for, then select **Next**.

The screenshot shows the 'MPS Printer Onboarding Tool' interface. At the top, there are navigation tabs: 'Home', 'About', and a language selector. Below the navigation, there are three main steps: '1 Device(s) selected', '2 Settings Provide proxy & credentials', and '3 Cloud Enablement'. The 'Settings' page is active, showing 'IP Range Discovery' configuration. It includes fields for 'From IP address' (123.45.67.89) and 'To IP address' (123.45.67.189). A 'Discover' button is on the left, and a 'Next' button is highlighted in blue. Below the IP range fields, there is a 'SNMP Version v1/v2' toggle set to 'v3' and a 'Configure' button. A help box titled 'IP Range Discover' explains that the user should provide the start and end of the IP range for communication. At the bottom, a table shows the results of the discovery, with several devices selected (checkboxes checked) and highlighted in blue. The table columns include Host Name/IP, Reachability, Is Printer, Model, Serial Number, Firmware Check, Firmware, and Firmware Date.

The Settings page appears.

- On the Settings page, complete the following steps as necessary.
  - If your printer is behind a proxy, select **Is your device behind proxy?**

The panel expands to display fields for you to enter the **Proxy** (host name or IP address), the **Port**, **Proxy Server Username**, and **Proxy Server Password**.

A form with a checked checkbox labeled "Is your device behind proxy?". Below it are four input fields: "Proxy", "Port", "Proxy Server UserName", and "Proxy Server Password".

- If your printer requires credentials, select **Does device need admin credentials to access?**

The panel expands to display fields for you to enter **EWS Username** and **EWS Password / Device PIN**.

A form with a checked checkbox labeled "Does device need admin credentials to access?". Below it are two input fields: "EWS Username" (with the text "admin" entered) and "EWS Password / Device PIN".

8. Select **Next**. The Cloud Enablement page appears.

The screenshot shows the "MPS Printer Onboarding Tool" interface. The top navigation bar includes "Home", "About", and a language selector. The main content area has a progress indicator with three steps: "1 Device(s) selected", "Settings Provide proxy & credentials", and "Cloud Enablement" (which is the active step). Below the progress indicator are "Start" and "Reset" buttons. A help box titled "Onboard Devices help" contains the following text: "If the selections and data from step 1 and 2 are correct, to proceed with the actual Cloud Enablement process press Start button. This action will enable the Web Services and provide Identity data of the device to the user. If the previous steps need to be revised, Reset button will redirect user again to step 1. Use Export button to store locally the resulting data of this Cloud Enablement step."

9. Select **Start** to enable web services on the selected printers.

The MPS Printer Onboarding tool attempts to enable web services and register the printer(s) with the HP cloud. Once complete, an onboarding report appears in the lower portion of the page showing whether the enablement succeeded or failed.

hp MPS Printer Onboarding Tool Home About 🇺🇸 ☰

1 Device(s) selected Settings Provide proxy & credentials Cloud Enablement

**Onboard Devices help**  
 If the selections and data from step 1 and 2 are correct, to proceed with the actual Cloud Enablement process press Start button. This action will enable the Web Services and provide Identity data of the device to the user. If the previous steps need to be revised, Reset button will redirect user again to step 1. Use Export button to store locally the resulting data of this Cloud Enablement step.

Redo Export Reset

Onboarding Devices (6) Onboarding device report 🟢 4 🔴 2 ⌵

<input type="checkbox"/>	Host Name/I...	Model	Serial Number	Identity	Device Settin...	Web Serv...	Status	Acti...
<input type="checkbox"/>	123.45.67.136	HP LaserJet Flo...	CN1158W07H	🟢 Success		🟢 Registered	🟢 Success	👁
	123.45.67.138	HP Digital Send...	CN6CF1201W	🟢 Success		🔴 Error	🔴 Error	👁
	123.45.67.139	HP LaserJet MF...	CN41M1N022	🟢 Success		🔴 Error	🔴 Error	👁
<input type="checkbox"/>	123.45.67.140	HP LaserJet Pro...	CN2KM189LK	🟢 Success		🟢 Registered	🟢 Success	👁
<input type="checkbox"/>	123.45.67.142	HP Color LaserJ...	JPBGB00018	🟢 Success		🟢 Registered	🟢 Success	👁
<input type="checkbox"/>	123.45.67.148	HP Color LaserJ...	CNCRQ6R64Y	🟢 Success		🟢 Registered	🟢 Success	👁

## Troubleshooting issues

If the MPS Printer Onboarding is unable to successfully enable HP cloud connection/web services, there could be a few reasons why. For example, the printer may be unavailable due to a network issue.

The best way to get specific information about the cause of your issue is by opening the Device Details page. To view Device Details page, select the icon in the Action column of the Onboarding Results list.

Onboarding Devices (6) Onboarding device report 🟢 4 🔴 2 ⌵

<input type="checkbox"/>	Host Name/I...	Model	Serial Number	Identity	Device Settin...	Web Serv...	Status	Acti...
<input type="checkbox"/>	123.45.67.136	HP LaserJet Flo...	CN1158W07H	🟢 Success		🟢 Registered	🟢 Success	👁
	123.45.67.138	HP Digital Send...	CN6CF1201W	🟢 Success		🔴 Error	🔴 Error	👁
	123.45.67.139	HP LaserJet MF...	CN41M1N022	🟢 Success		🔴 Error	🔴 Error	👁
<input type="checkbox"/>	123.45.67.140	HP LaserJet Pro...	CN2KM189LK	🟢 Success		🟢 Registered	🟢 Success	👁
<input type="checkbox"/>	123.45.67.142	HP Color LaserJ...	JPBGB00018	🟢 Success		🟢 Registered	🟢 Success	👁
<input type="checkbox"/>	123.45.67.148	HP Color LaserJ...	CNCRQ6R64Y	🟢 Success		🟢 Registered	🟢 Success	👁

The Device Details page displays the steps of the enablement process, where that process failed, and provides some information on how to remediate the issue.

Device Details ✕

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Information on the each step that device has performed during the cloud enablement/onboarding process.

Host: 15.4.4.131   Device Family: HP LaserJet Flow 8601   SerialNumber: CN1158W07H

Date: April 21, 2025

1 Communication with device

- 11:30:29 AM  
Fetching Identity from device.
- 11:30:30 AM  
Status Code: 401. Error message: **Authorization Required**  
Please return to the Settings tab to enter the proper credentials. If the error persists, contact support.

Close

In most cases, the Device Details page provides enough information to help you resolve your issue, after which you can attempt to enable web services for the impacted printer. Review the following table to determine the appropriate steps:

Message	Troubleshooting steps
Unable to connect. Make sure the device is turned on and available.	The printer could be in a sleep state and the tool is unable to connect within the timeout. Check the printer connection status and try again.
Unauthorized: Request failed with status code 401	The printer is password protected, and either no password was provided or the provided password was incorrect. Provide the correct credentials and try again.
Error: Request failed with status code 401	Make sure the proxy information and EWS admin credentials provided in Settings page are correct.
Registration state is not valid. Status Code: 200, Message: OK, Attempt #1	Make sure the proxy information provided in the Settings page is correct.
Request failed with status code 404	Make sure the printer is connected to the network and online.
Status Code 404 Not found	Make sure the printer is connected to the network and online.

In some cases, the tool cannot be specific about the cause. In these instances, it's recommended to try to enable web services at the device or via the printer's embedded web server, rather than using the tool. For more information, see [Enabling Web Services on HP printers](#).

**Note:** Because the printer may be in a state in which web services were partially enabled, it may be necessary to first remove web services from the printer before attempting to re-enable them.