

HP Officejet Pro X551 Series Printers – IT Administrators Embedded Web Services Guide

This document provides information to IT administrators about Access Control, Restrict Color configuration, and Job Storage management through HP embedded web server (EWS). Access Control and Restrict Color can be managed centrally through HP Web Jetadmin as well.

Table of Contents

Minimum firmware requirement	2
Access Control	2
Sign-In methods	2
Local Device sign-in method	2
LDAP sign-in method	3
Windows sign-in method	4
Sign-In and Permission Policies	5
Restrict Color	6
Job Storage and Pin Printing	7
Enable and configure Job Storage.....	7
Disable Job Storage	9

Minimum firmware requirement

Before you start, ensure you have updated the printer firmware to BZP1CN1432DR or later version.

Check printer current firmware version:

1. Open the HP embedded web server (EWS).
2. Click the **Tools** tab. On the **Printer Information page**, scroll down to **Details**, and find the firmware version in the table.

Firmware updates and installation instructions are available at www.hp.com/support. Select your product. Click **drivers, software & firmware**, select your operating system, and then scroll down to the **Firmware** table to select the correct firmware version to download.

Access Control

Enable and configure sign-in methods and set permissions with Access Control.

Open the Access Control page:

1. Open the HP EWS.
2. On the **Settings** tab, click **Security**, and then click **Access Control**.

Sign-In methods

You can enable and configure the following sign-in methods.

- Local Device: Accounts are stored on the printer's flash memory.
- LDAP: Authentication using a Lightweight Directory Access Protocol (LDAP) server.
- Windows: Authentication through Windows domain accounts.


Local Device sign-in method

The Local Device sign-in method is always available. When a user accesses a restricted feature on printer, the printer prompts the user to enter a personal identification number (PIN) when the Local Device sign-in method is configured.



Note: The printer will only prompt the user to enter a PIN when Guest's permission is set to **Required Sign In** and User's permission is set. See the [Sign-In and Permission Policies](#) section for more details.

Create new Local Device user account

1. On the **Access Control** page, scroll down to the **Printer User Accounts** section.
2. Click .
3. Enter user name in the **Display Name** box. The maximum length of user name is 320 characters.
4. (Optional) Enter user's email address in the **Email Address** box. The maximum length of email address is 320 characters.

5. Specified an access code between four to eight digits long, and then click **Apply**.



Note: Local Device supports up to 50 users.

Edit Local Device user account

1. On the **Access Control** page, scroll down to the **Printer User Accounts** section.
2. Click **Edit**.
3. Change account information, and then click **Apply**.

Delete Local Device user account

1. On the **Access Control** page, scroll down to the **Printer User Accounts** section.
2. Select the checkbox beside the user account name, and then click **X**.

LDAP sign-in method

Use this option to enable or disable the LDAP sign-in method and configure the settings that the device uses to establish a connection with the LDAP server, authenticate users, and search the LDAP server database.



Note: By default, the LDAP sign-in method is disabled.

Enable and configure the LDAP sign-in method

1. Click **Setup** in the LDAP **Status** cell.
2. Select the **Enable LDAP Sign In** checkbox.
3. In the **LDAP Server Address** box, enter the IP address or hostname of the LDAP server. The LDAP server address cannot contain the following characters:
& < > ;
4. In the **Port** box, enter the port number that the LDAP server monitors for queries. The default is port 389.
5. To enable SSL/TLS, select the **Always use secure connection (SSL/TLS)** checkbox.

-Or-

To disable SSL/TLS, clear the **Always use secure connection (SSL/TLS)** checkbox.



Note: When SSL/TLS is enabled, Server's CA certificate needs to be imported into the printer.

6. In the **Server Authentication Requirement** section, select one of the following options:
 - **Use Printer User's Credentials:** The printer uses the credentials of the user who is signed in on the printer to authenticate to the LDAP server.
In the **Bind Prefix** box, enter the bind prefix. The bind prefix cannot contain the following characters:
& < > ;
 - **Use LDAP Administrator's Credentials:** The printer uses the LDAP Administrators credentials to authenticate to the LDAP server.
In the **User Name** box, enter the LDAP administrator name.

- In the **Password** box, enter the LDAP Administrator password.
7. In the **LDAP Database Search Settings** section, configure search.
 - a. In the **Bind and Search Root** box, enter the root name of the location in the LDAP directory structure where the printer begins the search. To enter multiple locations, separate the root names with the vertical bar (|) character.
 - b. In the **Match the name entered with this attribute** box, enter the attribute name that the printer uses to authenticate the user login name.
 - c. In the **Retrieve the device user's email address using this attribute** box, enter the LDAP attribute name for user email addresses.
 - d. In the **Retrieve the device user's name using this attribute** box, enter the LDAP attribute name for user names.
 8. Use **Test LDAP Sign In** to test.
 - a. In the **User Name** box, enter the name.
 - b. In the **Password**, enter the password.
 - c. Click **Save and Test**.
 9. Click **Apply**.


Disable the LDAP sign-in method

1. Click **Edit** in the **LDAP Status** cell.
2. Clear the **Enable LDAP Sign In** checkbox, and then click **Apply**.

Windows sign-in method

Use this option to enable or disable the Windows sign-in method and configure the Windows trusted domain and attributes that the printer uses to authenticate users.

Enable and configure the Windows sign-in method

1. Click **Setup** in the **Windows Status** cell.
 2. Select the **Enable Windows Sign In** checkbox.
 3. At the **Windows Sign-in Setup** section, perform the following steps:
 - a. In the **Default Windows Domain** box, enter the domain name.
 - b. To enable reverse DNS lookup, select the **Enable reverse DNS lookups** checkbox.
-Or-
To disable reverse DNS lookup, clear the **Enable reverse DNS lookups** checkbox.
 - c. To enable SSL/TLS, select the **Always use secure connection (SSL/TLS)** checkbox.
-Or-
To disable SSL/TLS, clear the **Always use secure connection (SSL/TLS)** checkbox.
-  **Note:** When SSL/TLS is enabled, Server's CA certificate needs to be imported into the printer.
- d. In the **Match the name entered with this attribute** box, enter the Windows domain attribute for user login name.
 - e. In the **Retrieve the user's email address using this attribute** box, enter the Windows domain attribute for user email addresses.


- f. In the **Retrieve the printer user's name using this attribute** box, enter the Windows domain attribute for user names.
4. Use **Test Windows Sign In** to test:
 - a. The **Domain Name** box should have the auto-populated setting.
 - b. In the **User Name** box, enter the name.
 - c. In the **Password**, enter the password.
 - d. Click **Save and Test**.
5. Click **Apply**.

Disable the Windows sign-in method

1. Click **Edit** in the Windows **Status** cell.
2. Clear the **Enable Windows Sign In** checkbox, and then click **Apply**.

Sign-In and Permission Policies

Permissions can be applied to local user accounts stored on the printer or to network users. Use this option to set permissions and restrict access for the following two user groups to use specific printer features.

- The **User** group: Users who log in the printer through the Local Device, LDAP, or Windows Sign-in methods.
 - The **Guest** group: Users who have not signed in.
-  **Note:** This setting is applicable to the features accessible from the printer control panel. For color access, it depends on the printer drivers installed on the client computer. All jobs sent from HP drivers will be considered from User permission settings, and all jobs sent from third-party drivers will be considered from Guest permission settings.

Set permissions and restrict access to printer features for Guest

Go to a printer feature row; select the checkbox in the **Guest** column to change the setting to:

- (Access Granted): Grant permission to Guest for using the printer feature.
- (Requires Sign In): Guest cannot use the printer feature. It requires Guest to sign in.

Set permissions and restrict access to printer features for User

1. Go to a printer feature row, select or clear the checkbox in the **User** column to change the setting to:
 - (Full Access): Grant permission to **User** for using the printer feature
 - (Access Denied): **User** cannot use the printer feature.
2. Select a sign-in method from the **Sign-In Method** drop-down list.



Note: If you want to allow users to use the printer features with different sign-in methods, select **Allow users to choose alternate sign-in methods**. Otherwise, users must sign in using the sign-in method set for each application.

3. Click **Apply**.



Note: Color print feature is applicable to color printers only. By default, it is enabled. To change the configuration, go to the **Restrict Color** page.



Restrict Color

Use this feature to manage the use of color printing supplies within your organization. You can specify that all color print jobs are printed in color, all color print jobs are printed in their grayscale equivalent, or color printing is restricted based on the user's permission level or based on the application.




Note: This feature is applicable to color printers only.


Configure restrict color

1. Open HP EWS.
2. On the **Setting** tab, click **Print Settings**, and then click **Restrict Color**.
3. Select one of the following options:
 - **Enable color printing:** All color jobs are printed in full color.
 - **Disable color printing:** All color jobs are printed in black-and-white or grayscale using black ink only. Ink from the color cartridges might be used for servicing.
 -  **Note:** The setting does not affect printer reports (such as Printer Status Report, Quality Report, and so on).
 - **Custom color printing:** Color jobs are printed in black-and-white or grayscale using black ink only if the users (through the Guest or User permission settings) do not have permission to print in color or if the job is printed from a color-restricted software application.
4. If the **Custom color printing** option is selected, select from:
 - **Restrict color printing from some software applications:** Select this checkbox to restrict color printing based on applications.
 - a. **Select the default color printing setting for all software applications:** Select a type of color usage from the drop-down list.
 - b. Identify and manage applications that require specific permission levels:
 -  **Note:** These applications have the specific permission level applied to them instead of the default permission level.
 - To add an application, click **+**. In the **Application Name** box, enter either the application name or the name of the executable file that starts the application. For example, enter `Microsoft Word`, or

enter WINWORD.EXE. Select the type of color usage from the **Control Color** drop-down list, and then click **Apply**.

 **Tip:** You can find the application name in **Color Usage Job Log** from **Reports** on the **Tools** tab. The Color Usage Job Log shows which users and applications are printing in color on the printer.


- To delete an application, select the checkbox beside the application name, and then click **X**.
- To change an application setting, click **Edit**.
- **Restrict color printing for users or groups:** Select this checkbox to restrict color printing based on user permission sets. A table is displayed below. Define the permissions and access for the Guest or User group in the table. The settings are also reflected in the **Access Control** page.

 **Note:** If both the **Restrict color printing from some software applications** and **Restrict color printing for users or groups** are selected, the lowest level of permission is applied when restricting color print jobs.



5. Click **Apply** to save your settings.



Job Storage and Pin Printing

Use this feature to store a print job to the USB drive on the printer rear USB port. Job Storage allows a print job to be stored and printed at the user's convenience. Job Storage also provides features for making a print job a personal job with a PIN or printing and proofing one copy of a job and then printing the additional copies.


 **Note:** By default, this feature is disabled.

Enable and configure Job Storage

1. Enable Job Storage
 - a. Open HP EWS.
 - b. Click the **Setting** tab, click **Security**, and then click **Protect Stored Data**.
 - c. Select the **Allow Stored Jobs on this printer** checkbox.
2. Configure security
 - a. In the **General Setting** section, check the security options:
 - **Require all print drivers Stored Jobs to be PIN-protected or encrypted:** Users need to use PIN or encryption when setting up job storage.
 **Note:** The encryption type used is AES 256.
 - **Cancel all print driver Stored Jobs that do not have PIN protection:** Stored Jobs without PIN protection get canceled.
 **Note:** If **Add PIN protection to existing Stored Jobs is selected** at the same time, existing stored job without PIN protection will be allowed to print.

- **Add PIN protection to existing Stored Jobs:** set a PIN to all Stored Jobs without PIN protection.
 - **Sort Stored Jobs By:** Use this option to specify the sort order of the stored print jobs on the printer. You can sort stored jobs by the date or the job name.
- b. At the **Temporary Stored Jobs Settings** section, select the options below as your security policy requires. Temporary stored jobs include Private jobs, Quick Copy jobs, and Proof and Hold jobs.
- **Retain Temporary Jobs after Restart:** Use this option to specify whether you want to keep temporary stored jobs after printer restart. You can select **Do not retain**, **All temporary jobs**, or **Personal jobs only**.
 - **Delete Temporary Jobs After:** Use this option to specify lifetime for temporary stored jobs. You can select **Never**, **1 hour**, **four hours**, **1 day** or **1 week**.
 - **Temporary Job Storage Limit:** Use this option to set a number limit of temporary stored jobs allowed. When the limit is reached a newer job will overwrite the oldest.
-  **Note:** It supports up to 100 temporary stored jobs.
- c. Click **Apply** to save your settings.
3. Insert a USB drive to the printer rear USB port.
-  **Important:** Do not insert the USB drive to the front USB port for storing print jobs. It does not support this feature.
4. Format the USB drive by following the instructions on the control panel display.
5. Install HP Universal Print Driver (UPD) on the client computer.

Go to www.hp.com/go/upd for drivers and installation instructions.

 **Note:** If you installed UPD 5.9.0 or higher version, it will automatically configure device settings for you. If you installed an earlier UPD version, do the following to configure device settings manually:

- a. Depending on your operating system, do one of the following:
 - **Windows 8:** Point to or tap the upper-right corner of the screen to open the Charms bar, click the **Settings** icon, click or tap **Control Panel**, and then click or tap **View devices and printers**.
 - **Windows 7:** From the Windows **Start** menu, click **Devices and Printers**.
 - **Windows Vista and Windows XP:** From the Windows **Start** menu, click **Control Panel**, and then click **Printers** or **Printers and Faxes**.
- b. Right-click on the printer icon and select **Printer properties** or **Properties** from the pop-up menu.
- c. Click the **Device Settings** tab.
- d. Scroll to the bottom and expand **Installable Options**.
- e. Select **Installed** from the **Printer Hard Disk** drop-down list.
- f. Select **Enable** from the **Mopier Mode** drop-down list.
- g. Click **Apply** to save your settings.



Note: After installing HP UPD, you can use the Job Storage feature and Mopier Mode when printing from a computer. Open **Printing Preferences**, click the **Job Storage** tab.



Note: To use Job Storage and Mopier Mode, they must be enabled and the USB drive must be inserted in the printer rear USB port.

Disable Job Storage

1. Open HP EWS, click the **Setting** tab, click **Security**, and then click **Protect Stored Data**.
2. Clear the **Allow Stored Jobs on this printer** checkbox, and then click **Apply**.
3. On the client computer, do the following to change the device settings.
 - a. Depending on your operating system, do one of the following:
 - **Windows 8:** Point to or tap the upper-right corner of the screen to open the Charms bar, click the **Settings** icon, click or tap **Control Panel**, and then click or tap **View devices and printers**.
 - **Windows 7:** From the Windows **Start** menu, click **Devices and Printers**.
 - **Windows Vista** and **Windows XP:** From the Windows **Start** menu, click **Control Panel**, and then click **Printers** or **Printers and Faxes**.
 - Right-click on the printer icon and select **Printer properties** or **Properties** from the pop-up menu.
 - b. Click the **Device Settings** tab.
 - c. Scroll to the bottom and expand **Installable Options**.
 - d. Select **Not Installed** from the **Printer Hard Disk** drop-down list.
 - e. Select **Disable** from the **Mopier Mode** drop-down list.
 - f. Click **Apply** to save your settings.