



HP Web Jetadmin - Installation and Setup Guide

SUMMARY

This guide contains information on how to install and set up HP Web Jetadmin.

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1 Install and Set Up HP Web Jetadmin

Every release of HP Web Jetadmin contains new features and improvements to existing features. HP Web Jetadmin provides several installation options. If you installed an earlier version of HP Web Jetadmin, you can upgrade the earlier version or you can install a new copy.

If you are already using HP Web Jetadmin, upgrading is usually the best choice. Your existing settings, such as discovery options and device groups, are preserved during the upgrade process.

If HP Web Jetadmin is installed and integrated in your critical business operations, HP recommends that you fully test and qualify a new release in your test environment before you implement the release in your production environment.

Before you implement HP Web Jetadmin, read all of the support materials. For current information about HP Web Jetadmin, see the *HP Web Jetadmin - Late Breaking News* (in English) and *HP Web Jetadmin - Supported Devices Readme* (in English). These documents are available from the [HP Web Jetadmin Software](#) product support website.

System Requirements

You only need to install HP Web Jetadmin on one hardware platform that meets the recommended minimum requirements and is centrally accessible on the network. You can then access the software from any supported Windows desktop on the network and manage all supported network-connected peripherals.

HP Web Jetadmin includes network device communication protocols and internal components that manage application and device data. These components extend the capabilities of HP Web Jetadmin and improve usage and performance for features such as device lists, columns, and filtering.

HP Web Jetadmin is supported on platforms that have Microsoft Windows and .NET Framework high-priority updates installed. During each development cycle, HP regularly tests HP Web Jetadmin on platforms that have the current Microsoft updates. HP investigates all post-release software issues that customers report. For more information about the current software issues, see the *HP Web Jetadmin - Late Breaking News* (in English). This document is available from the [HP Web Jetadmin Software](#) product support website.

HP Web Jetadmin requires the Windows HTTP SSL service. HP Web Jetadmin uses SSL to communicate with newer HP devices through port 8050.

HP Web Jetadmin Server Application


Review the following requirements for the server where HP Web Jetadmin is installed.

The following operating systems are supported:

- Microsoft Windows Server 2022
- Microsoft Windows Server 2019
- Microsoft Windows Server 2016
- Microsoft Windows 11

- Microsoft Windows 10 (64-bit edition only)

For more information about a specific Microsoft operating system, go to the [Microsoft](#) website.

 **IMPORTANT:** HP Web Jetadmin 10.5 SR4 or later can be installed only on the operating systems listed here. HP recommends Microsoft SQL Server 2022 for HP Web Jetadmin 10.5 SR4 or later. SQL Server 2022 is supported only on these operating systems. For more information, see the *Version requirements for SQL Server in Windows operating system* document on the [Microsoft Documentation](#) website.

The following are additional notes about the server where HP Web Jetadmin is installed:

- Beginning with HP Web Jetadmin 10.5, Microsoft .NET Framework 4.8 or later is required because HP Web Jetadmin supports Transport Layer Security (TLS) 1.1, 1.2, and 1.3. Some of the operating systems the current release supports already ship with .NET Framework 4.8 or later.

HP recommends that you install the latest security updates for Microsoft .NET Framework 4.8 or later.
- Local administrator access is required to install or upgrade HP Web Jetadmin.
- The SQL Express silent installer requires that the account you use to install HP Web Jetadmin has Administrators rights for the following policies in **Local Security Policy > Local Policies > User Rights Assignment**:
 - **Back up files and directories**
 - **Debug programs**
 - **Manage auditing and security log.**The local administrators group has these rights by default. However, your network security team might have changed them.
- Production HP Web Jetadmin installations are restricted to dedicated hosts. HP does not support running HP Web Jetadmin on a system that is also a mail server, DNS server, domain controller, and so on.
- The system account must use a language the HP Web Jetadmin installer supports. For more information about changing the language for the Welcome screen, new user accounts, and system accounts, see the documentation for the version of Microsoft Windows you are using.

HP Web Jetadmin Client Application

Review the following requirements for the HP Web Jetadmin client application.

The following operating systems are supported:

- Microsoft Windows Server 2022 (64-bit edition only)
- Microsoft Windows Server 2019
- Microsoft Windows Server 2016
- Microsoft Windows 11 (64-bit edition only)
- Microsoft Windows 10

For more information about a specific Microsoft operating system, go to the [Microsoft](#) website.

Beginning with HP Web Jetadmin 10.5, Microsoft .NET Framework 4.8 or later is required because HP Web Jetadmin supports Transport Layer Security (TLS) 1.1, 1.2, and 1.3. Some of the operating systems that the current release supports already ship with .NET Framework 4.8 or later.

Virtual Machine (Optional Platform)

If you are using a virtual machine, review the following requirements.

HP recommends the following virtualization solutions:

- VMware ESX

For a VMware server, the virtual machine network must be set to **Bridged** to facilitate HP Web Jetadmin communications.

It is very important to configure VMware so that its guest or virtual systems have enough resources to support HP Web Jetadmin and Microsoft SQL Server. To ensure that the appropriate resources are provisioned, see the support documentation for the version of VMware you are using.

- Microsoft Hyper-V

Server Hardware

Review the following requirements for the server hardware.

HP recommends the following hardware configuration for the server:

- 4 or more processor cores
- 2.8 GHz or higher processor speed
- 4 GB or more of RAM
- 4 GB of available storage

The following are the minimum hardware requirements allowed for the server:

⚠ CAUTION: Although you can use the following hardware configuration for the server, HP does not recommend that you use it for production installations. HP does not test HP Web Jetadmin on this hardware configuration and, therefore, cannot guarantee the results.

- 2 processor cores
- 2.33 GHz processor speed
- 5 GB of RAM (2 GB is required for the HP Web Jetadmin Service, and 2 GB is the default SQL memory reservation)

HP Web Jetadmin uses a value of 3,072 MB to qualify a system as having 3 GB of RAM.

- 4 GB of available storage

The following are additional notes about the server hardware:

- Recent software improvements have increased resource capacity requirements. HP strongly recommends the 64-bit editions of Windows and 4 GB or more of RAM for production HP Web Jetadmin installations.

- Storage requirements vary depending on the implementation, database, and migration from previous versions.
- NTFS is the only supported file system.
- If the HP Web Jetadmin installer determines that less than 1 GB of RAM is installed, the installer displays a message stating that 3 GB of RAM is required.

Client Hardware

Review the following requirements for the client hardware.

HP recommends the following hardware configuration for the client:

- PC with 2.4 GHz processor
- 64-bit system with 4 GB of RAM
- Client display with a minimum resolution of 1024 x 768
- Optimized for Normal font size
- Default DPI only

The following are the minimum hardware requirements allowed for the client:

⚠ CAUTION: Although you can use the following hardware configuration for the client, HP does not recommend that you use it for production installations. HP does not test HP Web Jetadmin on this hardware configuration and, therefore, cannot guarantee the results.

- PC with 1.8 GHz processor
- 32-bit or 64-bit system with 2 GB of RAM
- Client display with a minimum resolution of 1024 x 768
- Optimized for Normal font size
- Default DPI only

Database

For new installations of HP Web Jetadmin 10.5 SR4 or later, the installation package automatically installs Microsoft SQL Server 2022 Express (build version 16.0.1000.6).

Existing installations of HP Web Jetadmin 10.5 SR2 through 10.5 SR3 use SQL Server 2019 Express (build version 15.0.2000.5).

Existing installations of HP Web Jetadmin 10.5 SR1 or earlier use SQL Server 2012 Express SP4 (build version 11.0.7001.0).

📝 NOTE: HP successfully tested HP Web Jetadmin with Microsoft SQL Server 2022.

💡 TIP: For more information about configuring HP Web Jetadmin to use a separate Microsoft SQL instance, see the *Using Microsoft SQL Server with HP Web Jetadmin* white paper (in English). This white paper is available from the [HP Web Jetadmin Software](#) product support website.

Network

The HP Web Jetadmin installer requires one active IPv4 connection. If an active IPv4 connection is not available, the installer fails.

For firmware upgrades with HP Web Jetadmin, a minimum bandwidth of 1 MB/s is required. If there are multiple devices upgrading at the same time, then the minimum bandwidth of 1 MB/s will be equal to the number of concurrent firmware upgrades. For example, four simultaneous upgrades requires at least 4 MB/s.

Installations and Upgrades

Local administrator access is required to install or upgrade HP Web Jetadmin.

Client Application

The HP Web Jetadmin client application requires a supported web browser and a display with supported specifications.

The following are the requirements for the client application:

- One of the following browsers:
 - Firefox version 102.0.1 or later
 - Google Chrome version 89.0.4356.6 or later
- Display with a minimum resolution of 1024 x 768



IMPORTANT: The HP Web Jetadmin Launcher extension is required. To install this extension, go to the [Chrome web store](#).

- Microsoft Edge version 87.0.664.60 or later
- Opera version 89.0.4447.38 or later

For more information about the requirements and limitations of the web browser you are using, see the support documentation for the Windows operating system you are using.

The following are additional notes about the client application:

- Administrator access is not required to run the HP Web Jetadmin client application.
- A maximum of 15 concurrent client sessions are allowed.

Supported Devices

HP Web Jetadmin supports HP devices and third-party devices that are connected through HP Jetdirect print servers. HP Web Jetadmin also supports third-party devices that are standard printer MIB compliant and are connected to the network.

HP Web Jetadmin provides basic capabilities for third-party devices. HP Web Jetadmin provides more robust capabilities if the third-party devices are used with HP-certified plug-ins for HP Web Jetadmin.



IMPORTANT: If the following devices use a Universal Plug-in (UPI), WS-Discovery must be enabled on the devices:

- HP DesignJet

- HP LaserJet Pro
- HP OfficeJet Pro
- HP PageWide XL
- HP FutureSmart with a firmware version earlier than 3.2.3

If WS-Discovery is disabled on an HP DesignJet, HP LaserJet Pro, HP OfficeJet Pro, or HP PageWide XL device, HP Web Jetadmin uses the correct UPI and displays a status of **Device Communication Error** for the device after a device discovery or full refresh is performed.

If WS-Discovery is disabled on an HP FutureSmart device with a firmware version earlier than 3.2.3, HP Web Jetadmin uses a generic device model instead of the correct UPI after a device discovery or full refresh is performed.

Host Access

For the application host, local administrator access is required to install or upgrade HP Web Jetadmin.

For the client host, local user access is required to access the HP Web Jetadmin client application and administrator access is required to install Microsoft .NET Framework.

Client/Server Security

Microsoft domain or locally managed Windows users and passwords are required.

A strong, complex password must be configured on the HP Web Jetadmin server. The following are the characteristics of a strong, complex password:

- Contains a minimum of 12 characters
- Contains three of the following types of characters:
 - uppercase letters
 - lowercase letters
 - numbers
 - special characters

HP tests HP Web Jetadmin in Microsoft Active Directory domains.

Users must be a member of an HP Web Jetadmin server administrator group or designated as one of the following in the HP Web Jetadmin User settings:

- Windows local security group
- Active Directory security group
- Local individual user account
- Active Directory domain user account

Install HP Web Jetadmin

HP Web Jetadmin is available as a 64-bit executable file. When you download and run the executable file, the latest version of the software is installed. This version of HP Web Jetadmin supersedes all the previous versions.


The revision history for HP Web Jetadmin is available in the *HP Web Jetadmin - Late Breaking News* (in English). This document is available from the [HP Web Jetadmin Software](#) product support website.

Use the following steps to install HP Web Jetadmin:

1. Go to the [HP Web Jetadmin - Software Depot](#) website.
2. Click the **Request** button. The HP account login webpage opens.
3. Choose one of the following options:
 - If you already have an HP account, log in with your credentials.
 - If you do not have an HP account, click the **Sign up** link at the bottom of the webpage. Follow the instructions to create an HP account, and then log in.
4. On the **HP Web Jetadmin** webpage, follow the instructions to download the current software.
5. Double-click the EXE file.
6. Follow the instructions in the installation wizard.
7. On the **Database Connection** page of the installation wizard, choose one of the following database connection options:
 - **Install SQL Server Express 2022 and create and initialize a new database:** Database access is granted to the Network Service. Continue with step 8.
 - **Create and initialize a new database on an existing SQL Server, or upgrade an existing database:** Click the **Next** button. On the **Database Server** page, use the following steps to configure the database:
 - a. To specify the location of the database server, choose one of the following options:
 - From the **Database server that you are installing to** drop-down list, select the server where the database is installed.
 - To find a database server, click the **Browse** button. In the window that opens, select the database server, and then click the **OK** button.
 - b. To specify the authentication mode that is used to connect to the database, select one of the following options in the **Connect using** section:
 - **Windows authentication credentials of current user:** The Windows credentials of the current user are used to connect to the database.
 - **Server authentication using the Login ID and password below:** Enter the log-in ID and password for a user defined in the SQL Server installation.


Typically this is the credentials for the SQL Server system administrator that were configured when the SQL database was installed.
 - c. To specify the name of the database catalog, choose one of the following options:

- In the text field, enter the name of the database catalog.
- Click the **Browse** button. In the window that opens, select the database catalog, and then click the **OK** button.

 **IMPORTANT:** For remote databases or upgrades, database access is not modified.

8. Click the **Next** button.
9. On the **Certificate Information** page of the installation wizard, select one of the following options, and then click the **Next** button:
 - **HP WjA Self Signed Certificate:** Specify the number of years that the HP Web Jetadmin self-signed certificate is valid based on your company's requirements. The maximum is **99** years.
 - **Third Party Certificate:** To import a third-party certificate (PFX file) that replaces the HP Web Jetadmin self-signed certificate, click the **Browse** button. In the **InstallShield** window, navigate to and select the PFX file, and then click the **Open** button. In the **Certificate Password** field, enter the password for the PFX file.


Previously, HP Web Jetadmin used the self-signed certificate for HP Web Jetadmin identity purposes and used a separate certificate that was installed for HTTPS communications. HP Web Jetadmin now uses this third-party certificate for both HP Web Jetadmin identity purposes and as an SSL certificate for HTTPS communications.

 **CAUTION:** If you delete an imported third-party certificate that is used for both HP Web Jetadmin identity purposes and HTTPS communications, some HP Web Jetadmin features fail and some features have limited functionality. The following are some examples of the features that are impacted:

- HTTPS communication between the client and server fails.
- HP Web Jetadmin does not receive Instant On Listen device announcements from HP Security Manager.
- Alerts that are based on device events fail. Other types of alerts continue to function.

HP Web Jetadmin does not display a warning or error message for the features that are impacted.

-
10. On the **Configure Multi-Factor Authentication Using Azure AD** page of the installation wizard, use the following steps to enable the Multi-Factor Authentication feature using the Microsoft Entra ID platform:

 **IMPORTANT:** To use the Multi-Factor Authentication feature successfully, an application must be registered within the Microsoft Entra admin center for the desired tenant using an Authentication Platform of **Mobile and desktop applications**. HP recommends a redirect URI of `http://localhost:8000`. For more information, see *Quickstart: Register an application with the Microsoft identity platform* on the [Microsoft Entra](#) website.


- a. Select the **Enabled** option.
- b. Enter the required information in the **Application (Client) ID** and **Directory (Tenant) ID** fields.

Both IDs can be found on the Overview pane for the registered application.

- c. Enter the required information in the **Redirect URI** field.

Make sure that the redirect URI you enter matches exactly the redirect URI configured in the Enterprise application registered in Microsoft Entra.

- d. Click the **Next** button.

 **TIP:** You can update these settings after HP Web Jetadmin is installed by editing the MultiFactorAuthSettings.config.xml configuration file.


- When the HPWJA Service runs as a Network Service, this configuration file is available in the following directory by default:

C:\Windows\ServiceProfiles\NetworkService\AppData\Local\HP Inc\HPWebJetadmin\WjaService\config

- When the HPWJA Service runs as a domain user, HP Web Jetadmin uses the file from the corresponding user's profile directory:

C:\Users\user_name\AppData\Local\HP Inc\HPWebJetadmin\WjaService\config

11. If the installation stops with a warning that a restart is required, restart the host where the HP Web Jetadmin installer is running. Then double-click the EXE file to continue the installation.
12. When the installation is complete, click the **Finish** button.

 **IMPORTANT:** If the HP Web Jetadmin installer does not install Microsoft SQL Server Express Edition, the most common reason for the failure is that Windows updates, such as service packs or hotfixes, were installed on the host and the host was not restarted after the updates completed. Restart the host, and then install HP Web Jetadmin again.

Install HP Web Jetadmin from the Command Line

You can install HP Web Jetadmin from the command line. You can also use the command-line syntax in a script or automated process to install HP Web Jetadmin.

The following is the syntax for the command-line installer:

```
<filename>.exe [/L"<LanguageID>"] [/S /v/qn] </V"[Property1=Value1]
[Property2=Value2] [...]">
```

The command-line installer provides the following parameters:

- <filename>.exe
(Required) Specifies the name of the EXE file you downloaded from the [HP Web Jetadmin - Software Depot](#) website.
- /L"<LanguageID>"
(Optional) Specifies the ID of the language the command-line installer uses. The default is the local system language.

If the language dialog is enabled and you specify a valid language ID, the command-line installer automatically suppresses the language dialog.

If you specify an invalid language ID or a language ID the command-line installer does not support, the command-line installer ignores this parameter.

The following table provides a list of the language IDs that can be specified for this parameter.

Table 1-1 Language IDs for the command-line installer

Language	Language ID
Chinese (Simplified)	2052
Chinese (Traditional)	1028
English (Worldwide)	1033
French (European)	1036
German	1031
Italian	1040
Japanese	1041
Korean	1042
Portuguese (Brazilian)	1046
Russian	1049
Spanish (Mid-Atlantic)	1034

- `/S /v/qn`

(Optional) Performs a silent installation.

The following properties on the `/v` parameter are required for a silent installation:

- `WJA_EULA`
- `ENABLE_ANONYMIZED_DATA_COLLECTION`

- `/V"[Property1=Value1] [Property2=Value2] [...]"`

(Required) Specifies a list of the properties the command-line installer uses. The following table describes the properties and values that are available.

Table 1-2 Properties and values for the command-line installer

Property and values	Description
<code>WJA_EULA=ACCEPT REJECT</code>	Specifies whether you accept or reject the HP Web Jetadmin End-User License Agreement (EULA). This property is required for silent installations.

Table 1-2 Properties and values for the command-line installer (continued)

Property and values	Description
<code>ENABLE_ANONYMIZED_DATA_COLLECTION=TRUE FALSE</code>	<p>Specifies whether the Data Collection feature is enabled or disabled. The Data Collection feature collects data about your devices and implementation of HP Web Jetadmin, and then anonymizes the data. HP Web Jetadmin uses an internet connection to transmit the anonymized data to HP. HP uses the anonymized data to improve products and services.</p> <p>This property is required for silent installations.</p> <p>IMPORTANT: HP is committed to protecting your privacy and the integrity of your computer. You can enable or disable the Data Collection feature at any time. Your name, address, email address, and other sensitive data are not sent to HP.</p>
<code>WJA_SKIP_DB_INSTALL=1 0</code>	<p>Specifies whether the database is installed. To skip the database installation, specify 1.</p> <p>This property is required if you do not want to install the database.</p>
<code>INSTALLDIR="<>Path>"</code>	<p>Specifies the path where HP Web Jetadmin is installed. The following is the default path:</p> <p>C:\Program Files\HP Inc\Web Jetadmin 10\</p> <p>This property is optional for silent installations.</p> <p>The path must be enclosed with \ ". In addition, the properties specified for the /v parameter must be enclosed with quotes (").</p> <p>The following is an example of the correct syntax:</p> <pre>/v"WJA_EULA=ACCEPT INSTALLDIR="C:\Program Files\HP Inc\Web Jetadmin 10\""</pre> <p>CAUTION: If the path contains spaces and is not enclosed with \ ", the command-line installer fails.</p>
<code>DATABASEDIR="<>Path>"</code>	<p>Specifies the path where the database is installed. The following is the default path:</p> <p>C:\Program Files\Microsoft SQL Server\</p> <p>This property is optional for silent installations.</p> <p>If the path contains spaces, you must use the Windows short-path notation. To find the short-path notation, issue the following command:</p> <pre>Dir *. /x</pre> <p>The path must be enclosed with \ ". The properties specified for the /v parameter must be enclosed with quotes (").</p> <p>The following are examples of the correct syntax:</p> <ul style="list-style-type: none"><code>/v"WJA_EULA=ACCEPT DATABASEDIR="C:\SQLServer\""</code><code>/v"WJA_EULA=ACCEPT DATABASEDIR="C:\Program~1\SQLServer\""</code> <p>CAUTION: If the path contains spaces and is not enclosed with \ ", the command-line installer fails.</p>

Table 1-2 Properties and values for the command-line installer (continued)

Property and values	Description
<code>CERT_IS_THIRDPARTY=TRUE</code>	<p>Specifies whether the Third Party Certificate option is used during the installation. To install a third-party certificate, specify <code>TRUE</code>.</p> <p>The default certificate option is HP Wja Self Signed Certificate.</p>
<code>PFX_CERT_PATH="<path>"</path></code>	<p>Specifies the path where the third-party certificate is stored. The third-party certificate must be a PFX file.</p> <p>The path must be enclosed with <code>\</code>. The properties specified for the <code>/v</code> parameter must be enclosed with quotes (<code>"</code>).</p> <p>The following is an example of the correct syntax:</p> <pre>/V"WJA_EULA=ACCEPT CERT_IS_THIRDPARTY=TRUE PFX_CERT_PATH="C:\Documents\Certificate.pfx" PFX_CERT_PASSWORD=*****"</pre>
<code>PFX_CERT_PASSWORD=<Password></code>	<p>Specifies the password required for the third-party certificate (PFX file).</p> <p>This property is required if you want to use the Third Party Certificate option.</p> <p>The following is an example of the correct syntax:</p> <pre>/V"WJA_EULA=ACCEPT CERT_IS_THIRDPARTY=TRUE PFX_CERT_PATH="C:\Documents\Certificate.pfx" PFX_CERT_PASSWORD=*****"</pre> <p>CAUTION: The following are some of the reasons the command-line installer might fail:</p> <ul style="list-style-type: none">• The path contains spaces and is not enclosed with <code>\</code>.• The third-party certificate and password are incorrect.
<code>SELFSIGNED_CERT_VALID_YR=<Years ></code>	<p>Specifies the number of years the HP Web Jetadmin self-signed certificate is valid. The default is 2. The maximum is 99.</p> <p>This property is required if you want to change the number of years the HP Web Jetadmin self-signed certificate is valid.</p> <p>This property is optional for silent installations.</p> <p>The following is an example of the correct syntax:</p> <pre>/V"WJA_EULA=ACCEPT SELFSIGNED_CERT_VALID_YR=10"</pre>

The following are examples of the syntax for the command-line installer. These examples assume that the name of the installation file is `WjaSetup-x64.exe`.

- To perform a basic silent installation, enter the following command:

```
WjaSetup-x64.exe /S /v/qn /V"WJA_EULA=ACCEPT  
ENABLE_ANONYMIZED_DATA_COLLECTION=TRUE"
```

- To start the command-line installer in Spanish, enter the following command:

```
WjaSetup-x64.exe /L"1034"
```


- To perform a silent installation that installs HP Web Jetadmin on C:\WJA, enter the following command:

```
WjaSetup-x64.exe /S /v/qn /V"WJA_EULA=ACCEPT
ENABLE_ANONYMIZED_DATA_COLLECTION=TRUE INSTALLDIR=\"C:\WJA\""
```

- To perform a silent installation that installs HP Web Jetadmin on C:\WJA and installs the database on C:\WJADB, enter the following command:

```
WjaSetup-x64.exe /S /v/qn /V"WJA_EULA=ACCEPT
ENABLE_ANONYMIZED_DATA_COLLECTION=TRUE INSTALLDIR=\"C:\WJA\"
DATABASEDIR=\"C:\WJADB\""
```

- To perform a silent upgrade, enter the following command:

```
WjaSetup-x64.exe /S /v/qn /V"WJA_EULA=ACCEPT
ENABLE_ANONYMIZED_DATA_COLLECTION=TRUE INSTALLDIR=\"C:\WJA\"
DATABASEDIR=\"C:\WJADB\" WJA_BACKUP_CONFIRM=YES"
```

- To perform a silent installation and use the **Third Party Certificate** option, enter the following command:

```
WjaSetup-x64.exe /S /v/qn /V"WJA_EULA=ACCEPT CERT_IS_THIRDPARTY=TRUE
PFX_CERT_PATH=\"C:\Documents\Certificate.pfx\"
PFX_CERT_PASSWORD=*****"
```

- To perform an installation and change the number of years the HP Web Jetadmin self-signed certificate is valid from the default of 2 years, enter the following command:

```
WjaSetup-x64.exe /S /v/qn /V"WJA_EULA=ACCEPT
SELSIGNED_CERT_VALID_YR=10"
```

Install HP Web Jetadmin in Blocking Mode

You can perform a silent installation in blocking mode to install HP Web Jetadmin from the command line.

The following is the command-line syntax:

```
start /wait <ProgramAndArguments>
```

For more information about the parameters that are available, see [Install HP Web Jetadmin from the Command Line on page 9](#).

The following examples assume that the name of the installation file is WjaSetup-x64.exe.

- ```
start /wait WjaSetup-x64.exe /S /v/qn /V"WJA_EULA=ACCEPT
INSTALLDIR=\"C:\wja\" DATABASEDIR=\"C:\wjadb\""
```
- ```
start /wait "C:\temp\WjaSetup-x64.exe /S /v/qn /V"WJA_EULA=ACCEPT
ENABLE_ANONYMIZED_DATA_COLLECTION=TRUE INSTALLDIR=\"C:\wja\"
DATABASEDIR=\"C:\wjadb\""
```

Post-Installation Tasks

After HP Web Jetadmin is installed, several tasks are required.

When the installation is complete, the HP Web Jetadmin server automatically starts as a Microsoft Service. The HP Web Jetadmin server cannot accept HP Web Jetadmin client connections until the services are loaded into memory. Depending on the system resources available on the HP Web Jetadmin server, it might take 1 to 2 minutes for all the services to load after the initial server installation or server reboot.

The first time you launch HP Web Jetadmin after the installation, a window opens stating that no devices have been discovered. You should run a discovery at this time.

After the installation is complete, you can launch HP Web Jetadmin from a supported browser by entering the hostname or IP address of the server where it is installed followed by the port number and path. The default port for Web Services is typically 80. HP Web Jetadmin and another Web Service can run simultaneously on the same server, so HP Web Jetadmin uses port 8000. HP Web Jetadmin can use a different port.

The following is an example of the URL to launch HP Web Jetadmin on a supported Windows desktop:

`http://hostname:8000`

Recommended Initial Configuration Steps

After HP Web Jetadmin is installed, some of the initial steps that you should take to begin managing devices and the print environment include configuring the options that are shared throughout HP Web Jetadmin, running a discovery, and configuring various other features.

Shared configuration options include the database, network (for example, SNMP and HTTPS), discovery, server maintenance, and credentials. To configure these options, go to **Tools > Options > Shared**, and then navigate to the appropriate category. For more information about a specific option, see the online Help for that option.

Finding devices on the network might be as simple as enabling HP Web Jetadmin to passively listen for devices on the network. Finding devices might be as complex as working with the IT team to map the entire IP network, and then running an IP Range discovery to compile a complete inventory of network-connected devices. You can also use many of the same settings and techniques to discover PC-connected devices. Before you plan and implement a device discovery strategy, carefully review the information about discoveries in the HP Web Jetadmin documentation and white papers.

You should configure features such as Roles, Users, Alerts, and Device Groups before you begin using HP Web Jetadmin. For more information about a specific feature, see the appropriate section in the HP Web Jetadmin documentation and the HP Web Jetadmin white papers.

The HP Web Jetadmin documentation and white papers are available from the [HP Web Jetadmin Software](#) product support website.

Configure the HP Web Jetadmin Service to Restart Automatically

HP recommends that you configure the HP Web Jetadmin service to restart automatically after a failure. For example, if the database becomes inaccessible, the HP Web Jetadmin service stops. The HP Web Jetadmin service can restart automatically as soon as the database is available again.

HP Web Jetadmin installs the HPWSProAdapter service to facilitate communication with some HP device models. The HPWSProAdapter service must be running. You must also follow these steps

to configure the HPWSProAdapter service to restart automatically when the HP Web Jetadmin service fails.

Use the following steps to configure the HP Web Jetadmin service to restart automatically:

1. Access the Windows **Control Panel**, and then click **Administrative Tools**.
2. Double-click **Services**.
3. Right-click **HPWJA Service**, and then select **Properties**.
4. Click the **Recovery** tab.
5. From the **First failure**, **Second failure**, and **Subsequent failures** drop-down lists, select **Restart the Service**.
6. Click **OK**.

Configure HP Web Jetadmin and the HPWSProAdapter Service to Bind to a Specific NIC

HP Web Jetadmin can run on a multi-homed server or on a server that has multiple network interfaces.

In many cases, a multi-homed server is connected to more than one network and has multiple IP addresses. A multi-homed server with multiple IP addresses can cause problems because HP Web Jetadmin tends to use only one address for various reasons.

HP Web Jetadmin is a collection of features that administrators can use to manage devices. Each of these features might require communications on the network or convey the IP address through which communications should take place to other features either on or off the HP Web Jetadmin server. These features facilitate learning the HP Web Jetadmin server IP address when the HPWJA service starts. These features do so in isolation and might not select the correct IP address. The following topics describe situations where features might not detect and select the correct IP address and provide a workaround that forces the HPWJA service and HPWSProAdapter service to select the correct IP address.


Configure the HP Web Jetadmin Client Connection and HPWSProAdapter to Use the Correct IP Address

The HP Web Jetadmin client startup is initiated from a web browser by sending an HTTP message to the client host. The HTTP message points to a Microsoft .NET Framework remote connection. The client host uses the HTTP message to initiate a relatively secure connection to the HP Web Jetadmin server.

HP Web Jetadmin can be installed on a multi-homed server with multiple IP addresses. If the HP Web Jetadmin (HPWJA) service selects one of these IP addresses and the system that hosts the client cannot communicate by using that IP address, the .NET Framework remote connection fails.

Use the following steps to configure the HPWJA service to use the correct IP address:

1. Use Windows Service Manager to stop the HPWJA service.


 **CAUTION:** Be careful when you stop the HPWJA service. Critical tasks might be running and clients might be logged in to HP Web Jetadmin.

To view the tasks that are running, go to the **Application Management > Overview > Application Management - Active Tasks** task module.

To view the clients that are logged in, go to the **Application Management > Overview > Client Management - Active Clients** task module.

2. Use Notepad or a similar editor to open the System.Remoting.config file. This configuration file is available in the following directory:

C:\Program Files\HP Inc\Web Jetadmin 10\config\WjaService


 **IMPORTANT:** Make sure that the editor you use has sufficient privileges to update and save the file.

3. Find the `CMRemotingChannel` channel.

```
<application>
  <channels>
    <channel ref="tcp" port="4088" name="CMRemotingChannel"
      rejectRemoteRequests="false"
      tokenImpersonationLevel="Impersonation" secure="true"
      protectionLevel="EncryptAndSign" impersonate="false">
```

4. Add the `machineName="xxx.xxx.xxx.xxx"` entry, and change the value to the IP address of the HP Web Jetadmin server that facilitates client communication. The following is an example of the edited code:

```
<application>
  <channels>
    <channel ref="tcp" port="4088" name="CMRemotingChannel"
      rejectRemoteRequests="false"
      tokenImpersonationLevel="Impersonation" secure="true"
      protectionLevel="EncryptAndSign" impersonate="false"
      machineName="xxx.xxx.xxx.xxx">
```

 **CAUTION:** Make sure that the code is entered exactly as shown here. Observe all of the rules for XML editing. Use the quotes (") that the editor generates.

Do not copy the code from this document, and then paste it into the editor. The characters copied into the editor, such as quotes ("), are not formatted correctly. Characters that are formatted incorrectly cause the HP Web Jetadmin XML parser to fail and the HPWJA service to fail during the startup process.

5. Close and save the file.
6. Use Windows Service Manager to start the HPWJA service.

HP Web Jetadmin Alerts and SNMP Traps Registration

In some cases, an HP Web Jetadmin instance on a multi-homed server populates the SNMP trap destination table on devices with an incorrect IP address. You can create a configuration file that forces HP Web Jetadmin to use the correct IP address for alerts and SNMP trap registration.

When HP Web Jetadmin alert subscriptions are created, HP Web Jetadmin registers its IP address in the SNMP trap destination table on the HP device. This registration causes the device to send a notification in the form of SNMP trap packets back to the HP Web Jetadmin server. HP Web Jetadmin uses these notifications to trigger alerts for device conditions, such as toner out or paper jam.

Use the following steps to configure the correct IP address for alerts and SNMP traps registration:

1. Use Windows Service Manager to stop the HPWJA service.

⚠ CAUTION: Be careful when you stop the HPWJA service. Critical tasks might be running and clients might be logged in to HP Web Jetadmin. To view the tasks that are running, go to the **Application Management > Overview > Application Management - Active Tasks** task module. To view the clients that are logged in, go to the **Application Management > Overview > Client Management - Active Clients** task module.

2. Open Notepad or a similar text editor that has the appropriate create and edit permissions.
3. Enter the following code:

```
<ipmc:configuration
xmlns:ipmc="www.hp.com/schemas/imaging/ipmc/config/2004/02/24">
  <property name="LocalIPv4Address">
    <type>HP.Imaging.Wjp.Sdk.Core.Framework.ConfigurationItemString
    </type>
    <value>xxx.xxx.xxx.xxx</value>
  </property>
</ipmc:configuration>
```

⚠ CAUTION: Make sure that the code is entered exactly as shown here. Observe all of the rules for XML editing. Use the quotes (") that the editor generates.

Do not copy the code from this document, and then paste it into the editor. The characters copied into the editor, such as quotes ("), are not formatted correctly. Characters that are formatted incorrectly cause the HP Web Jetadmin XML parser to fail and the HPWJA service to fail during the startup process.

4. Change the `<value>` attribute to the IP address for the HP Web Jetadmin server that devices can use to communicate.
5. From the **File** menu, select **Save As**. The **Save as** window opens.
6. Navigate to the following directory on the HP Web Jetadmin server host:

C:\Windows\ServiceProfiles\NetworkService\AppData\Local\HP Inc\HPWebJetadmin\WjaService\config
7. In the **File name** field, enter the following file name:

HP.Imaging.Wjp.Alerts.Library.AlertsHelpers.config.xml
8. From the **Save as type** drop-down list, select **All Files (*.*)**.
9. Click **Save**.
10. Use Windows Service Manager to start the HPWJA service.
11. Update any existing SNMP traps registrations by using the HP Web Jetadmin Configuration feature or by creating additional alert subscriptions.

HP Web Jetadmin Web Service

If HP Web Jetadmin detects the incorrect IP address on multi-homed systems, you can change the IP address in the configuration file that is created the first time the HPWJA service starts. HP Web Jetadmin uses this IP address for the HTTP and web services.

The HP Web Jetadmin web or HTTP service uses the server IP address for various reasons, including communicating with the IP address of the actual HTTP server and with other processes, nodes, and services. HP Web Jetadmin detects an incorrect IP address on multi-homed systems.

Use the following steps to change the IP address in the configuration file:

1. Use Windows Service Manager to stop the HPWJA service.

⚠ CAUTION: Be careful when you stop the HPWJA service. Critical tasks might be running and clients might be logged in to HP Web Jetadmin. To view the tasks that are running, go to the **Application Management > Overview > Application Management - Active Tasks** task module. To view the clients that are logged in, go to the **Application Management > Overview > Client Management - Active Clients** task module.

2. Open Notepad or a similar text editor that has the appropriate create and edit permissions.
3. From the **File** menu, select **Open**. The **Open** window opens.
4. Navigate to the following directory:

```
C:\Windows\ServiceProfiles\NetworkService\AppData\Local\HP Inc\HPWebJetadmin\WjaService\config
```

5. Open the HP.Imaging.Wjp.Core.WebServer.config.xml file.
6. Find the `HostIPv4Address` property.

```
<property name="HostIPv4Address">
  <type>HP.Imaging.Wjp.Sdk.Core.Framework.ConfigurationItemString
  </type>
  <value>xxx.xxx.xxx.xxx</value>
</property>
```

7. Change the `<value>` attribute to the correct server IP address.
8. From the **File** menu, select **Save**.
9. Use Windows Service Manager to start the HPWJA service.

Ports

HP Web Jetadmin listens continuously on several ports and opens other ports for specific functionality.



NOTE: HP Web Jetadmin uses Internet Control Message Protocol (ICMP) in the discovery process. HP Web Jetadmin sends an ICMP echo request to determine if the IP is active.

The following table lists the ports HP Web Jetadmin uses.

Table 1-3 Ports HP Web Jetadmin uses

Port number	Type	Inbound or Outbound ¹	Description
69	UDP	Inbound	TFTP Incoming Port: HP Web Jetadmin uses this port as a staging area for firmware images during HP Jetdirect firmware updates. HP Web Jetadmin uses SNMP to trigger HP Jetdirect to retrieve firmware through this port.

Table 1-3 Ports HP Web Jetadmin uses (continued)

Port number	Type	Inbound or Outbound ¹	Description
80	TCP	Outbound	HP Web Jetadmin uses this port to qualify the link to the HP Embedded Web Server on the device and to retrieve the firmware images from the web.
161	UDP	Outbound	SNMP: HP Web Jetadmin and other management applications use SNMP to communicate with and manage devices. HP Web Jetadmin uses this port on the printer to issue <code>Set</code> and <code>Get</code> commands to the SNMP agent.
427	UDP	Inbound	SLP Listen: HP Jetdirect-connected devices use Service Location Protocol (SLP) to advertise their existence. When the passive SLP discovery feature is enabled on HP Web Jetadmin, devices send multicast packets to this port on the HP Web Jetadmin server.
443	TCP	Outbound	HTTPS: The HP Web Jetadmin service and HPWSProAdapter service send device configurations and queries to this port over HTTPS. HPWSProAdapter uses this port to communicate with devices that do not support Web Services and are configured to redirect all the network traffic to HTTPS.
843	TCP	Outbound	HP Web Jetadmin uses this port to configure some settings, such as fax and digital sending, on some HP MFP device models.
1433	TCP	Outbound	Microsoft SQL Server: By default, HP Web Jetadmin installs the SQL Server database on the same host. Optionally, you can configure HP Web Jetadmin to communicate with a SQL Server database on a different host. HP Web Jetadmin uses this port to facilitate communication with a remote SQL Server database.
2493	UDP	Inbound, Outbound	Build Monitor: This HP Web Jetadmin server port is kept open. Other HP Web Jetadmin servers use this port to discover running instances of HP Web Jetadmin.
3329	TCP	Inbound	HP Web Jetadmin uses this port to receive device announcements from HP Security Manager. For more information about configuring HP Security Manager to forward device announcements, see the documentation for HP Security Manager. For more information about configuring HP Web Jetadmin to receive forwarded device announcements, see the online Help for the Instant on Listen feature.
3702 ²	UDP	Outbound	WS Discovery: HP Web Jetadmin uses this port to perform a Web Services Discovery on newer HP devices.
3910 ² , 3911	TCP	Outbound	WS Discovery: HP Web Jetadmin uses this port to retrieve details about the device Web Services during a discovery. HP Web Jetadmin uses these details to establish the WS communication paths it needs to manage devices. HP Web Jetadmin uses port 3910 to retrieve print requests and uses port 3911 to retrieve the printer status.
4088	TCP	Inbound	Remoting: HP Web Jetadmin uses this port as the primary communication channel between an active HP Web Jetadmin client and its corresponding HP Web Jetadmin server.
4089	TCP	Inbound	Client Event Notification: HP Web Jetadmin uses this port to communicate change events from the HP Web Jetadmin server to the client. These events trigger the client to pull updates from the server through the Remoting interface. In previous releases of HP Web Jetadmin, Windows assigned this port.

Table 1-3 Ports HP Web Jetadmin uses (continued)

Port number	Type	Inbound or Outbound ¹	Description
7627 ²	TCP	Outbound	<p>Web Services (HTTPS): HP Web Jetadmin uses this port to communicate with HP FutureSmart devices and older laser devices for some operations, such as OXPd.</p> <p>For devices that do not support Web Services, the HPWSProAdapter Service acts as a gateway between HP Web Jetadmin and the devices. The HPWSProAdapter Service receives Web Services requests from HP Web Jetadmin, and then sends the translated requests to the devices over one of the following ports:</p> <ul style="list-style-type: none"> 8080: This port is an unsecured connection. An HP Embedded Web Server password is not configured on the devices. 443: This port is a secure connection. An HP Embedded Web Server password is configured on the devices.
8000	UDP	Outbound	HP Web Jetadmin Discovery Listen: HP Web Jetadmin uses this port on remote IP hosts to detect earlier versions of the HP Web Jetadmin software.
8000	TCP	Inbound	Web Server: HP Web Jetadmin provides an HTTP listener for the initial client launch and online Help content.
8050	TCP	Inbound	Device Eventing Callback (HTTPS): Newer HP devices use a WS eventing protocol for management communications.
8080	TCP	Outbound	HPWSProAdapter: HPWSProAdapter uses this port to communicate with devices that do not support Web Services and are not configured to redirect all the network traffic to HTTPS. HP Web Jetadmin sends device configurations and queries to this port.
8140	TCP	Inbound	OXPM Web Services (HTTP): This is the communication port for HP Open Extensibility Platform (management operations).
8143	TCP	Inbound	OXPM Web Services (HTTPS): This is a secure communication port for HP Open Extensibility Platform (management operations).
8443	TCP	Inbound	Secure Web Server (HTTPS): HP Web Jetadmin provides a secure HTTPS listener for the initial client launch, online Help content, and operations for device file transfers.
9100	TCP	Outbound	Printer Firmware Upgrade and Test File Operation: HP Web Jetadmin uses this printer port to transfer printer firmware files, test job files, and PUL configuration files.
27892	UDP	Inbound	Traps Listener: HP Web Jetadmin uses this port for SNMP-based alerts and for Device Utilization by User data collections.
27893	UDP	Inbound	WS Hello Listener: HP Web Jetadmin monitors this port for incoming WS Hello packets from the HP Web Jetadmin software installed on hosts in the enterprise. When HP Web Jetadmin detects a packet, it follows up to determine whether there are any printers to discover on the sending host. For more information, see the <i>HP Web Jetadmin - Proxy Agents Readme</i> (in English). This document is available from the HP Web Jetadmin Software product support website.

Table 1-3 Ports HP Web Jetadmin uses (continued)

Port number	Type	Inbound or Outbound ¹	Description
59113	TCP	O	Microsoft SQL Server: By default, HP Web Jetadmin installs the SQL Server database on the same host. Optionally, you can configure HP Web Jetadmin to communicate with a SQL Server database on a different host. HP Web Jetadmin uses this port to facilitate communication with a remote SQL Server database.

¹ The **Inbound or Outbound** column represents the communication direction with respect to the HP Web Jetadmin server host. HP Web Jetadmin uses random source ports when communicating with ports on remote IP addresses.

² HP Web Jetadmin uses ports 7627, 3702, and 3910 internally to communicate with devices. To ensure proper communication, these ports must be kept open for communication directly with the device and with the internal HPWSProAdapter service.

Ports Required for WMI Discoveries

When you use a WMI discovery to discover printers connected to a PC that does not have an HP proxy agent installed, HP Web Jetadmin requires specific open ports.

The following ports must be open:

- DCOM ports
- WMI ports
- WMI connection applications: UnsecApp or WMI_OUT

For more information, see the *Setting up a Remote WMI Connection* document. This document is available from the [Microsoft Documentation](#) website.

Use a Batch File to Open All the Required Ports in the Windows Firewall

HP Web Jetadmin opens specific ports to communicate with devices. However, the firewall you use might block the connection and prevent HP Web Jetadmin from communicating with the network.

Instead of adding firewall rules for these ports one at a time, you can create a batch file that opens all the ports HP Web Jetadmin requires for the Windows firewall at one time. For instructions, see the *HP Web Jetadmin - Open HP Web Jetadmin Required Ports in the Windows Firewall and Ports Diagram* white paper (in English). This white paper is available from the [HP Web Jetadmin Software](#) product support website.

Implement SSL

The HP Web Jetadmin HTTP service runs without certificates by default. You can add certificates to implement Secure Sockets Layer (SSL).

If you add a certificate, the HTTP server runs in HTTPS mode and enforces Secure Sockets Layer (SSL) communication. In HTTPS mode, the user and the HTTP server are authenticated to one another and the traffic between them is encrypted. This adds an extra layer of security to the Smart Client download and other HTTP transactions.

HP Web Jetadmin does not self-generate certificates. You must obtain a certificate from a certificate authority (CA). CAs can exist inside or outside of an organization. Many companies have their own CAs.

You can use the HP Web Jetadmin Signing Request feature to generate a file, and then send the file to a CA. When the CA sends you a certificate, you can use the Install Certificate feature to enable HTTPS.



IMPORTANT: For new server certificates, you must install 2048-bit, 3072-bit, or 4096-bit certificates. Any previously installed 1024-bit server certificates continue to function correctly.

Enable SSL

HP Web Jetadmin administrators can enable Secure Sockets Layer (SSL) by installing a certificate in HP Web Jetadmin. The SSL protocol uses this certificate for authentication and encryption. This certificate forces the browser to use the more secure HTTPS protocol when a user accesses the client logon page.

SSL is required in some environments when an HTTP interface or service is used for communications. SSL provides a high level of assurance regarding the authentication and encryption of HTTP communications. A user who requests access to the HP Web Jetadmin Smart Client download can be reasonably assured that the system hosting HP Web Jetadmin is authentic and the communication between the two systems is encrypted so that it cannot be read easily by eavesdroppers.

The administrator uses HP Web Jetadmin to generate a signing request, and then sends the request to a certificate authority (CA). The CA generates a certificate and sends it back. The administrator must install the certificate in HP Web Jetadmin and enable SSL. The HTTP service then enforces the SSL protocol. Any browser contact with HP Web Jetadmin must have https: in the URL.

The administrator must enable SSL from the console or host where HP Web Jetadmin is installed. If an administrator tries to enable SSL from a remote client, a message is displayed stating that the action cannot be performed from the remote client.

For instructions on how to generate a signing request, install a certificate, and enable SSL, see [Install a Certificate and Enable HTTPS on the Server on page 23](#).


Important Points to Remember When Implementing SSL

If you add a certificate, the HP Web Jetadmin HTTP server runs in HTTPS mode and enforces Secure Sockets Layer (SSL) communication. In HTTPS mode, the user and the HTTP server are authenticated to one another and the traffic between them is encrypted.

When you implement and enforce SSL, consider the following points about client communication:

- For new server certificates, you must install 2048-bit, 3072-bit, or 4096-bit certificates. Any previously installed 1024-bit server certificates continue to function correctly.
- When you use an internal certificate authority (CA) to implement SSL on HP Web Jetadmin, you must install the CA authorization certificate in the client browser. If you do not install this certificate in the client browser, the HP Web Jetadmin Smart Client page fails to load in SSL mode.
- Proxy servers typically use the standard port 443 for SSL. HP Web Jetadmin uses port 8443 for SSL.

If the HP Web Jetadmin Smart Client page is called through a proxy server, a redirect error might occur because the URL is redirected from port 8443 to port 443. The workaround for this redirect error is to add the fully qualified domain name (FQDN) for HP Web Jetadmin to the exceptions list in the browser. To add the FQDN, open the browser, and then go to **Tools > Internet Options > Connections > LAN Settings > Advanced**. The browser uses the HTTP and HTTPS content directly from the HP Web Jetadmin server.

 **TIP:** You can change the default HTTP and HTTPS ports that HP Web Jetadmin uses. For instructions, see [Change the Default HTTP or HTTPS Port for the HP Web Jetadmin Smart Client Application on page 25](#).

- When you implement SSL on HP Web Jetadmin, a redirect occurs when the browser URL uses port 8000. For example, the following is the known URL before you implement SSL:

`http://<servername.domain.xxx>:8000`

After you implement SSL, HP Web Jetadmin redirects to the following URL:


`http://<servername.domain.xxx>:8443`

These URLs contain the FQDN. In most cases, the certificate that is issued and installed in HP Web Jetadmin for the SSL implementation contains the FQDN for the host where HP Web Jetadmin is installed. If the FQDN is not used in the browser, the certificate fails. As a general rule, use an FQDN in the URL for HP Web Jetadmin when you implement SSL.

Install a Certificate and Enable HTTPS on the Server


To run the HP Web Jetadmin HTTP service in HTTPS mode, you must install a certificate on the HTTP server and enable HTTPS. You can disable HTTPS mode at any time by removing the certificate from the HTTP server.

You can use HP Web Jetadmin to generate a request to create a certificate, and then send the request to a certificate authority (CA). When you receive the certificate from the CA, you can install the certificate on the HTTP server and enable HTTPS.

 **IMPORTANT:** Before you install or delete a certificate on Windows 11, use the following steps to modify the compatibility settings in the Edge browser:

1. Right-click the `msedge.exe` file, and then select **Properties**. This file is available in the following directory:
`C:\Program Files (x86)\Microsoft\Edge\Application`
2. On the **Compatibility** tab, select the **Run this program as an administrator** check box, and then click the **Apply** button.
3. Click the **OK** button.

Use the following steps to configure HTTPS mode:

 **IMPORTANT:** For new server certificates, you must install 2048-bit, 3072-bit, or 4096-bit certificates. Any previously installed 1024-bit server certificates continue to function correctly.

1. From the top menu bar, go to **Tools > Options > Shared > Network > HTTPS**.
2. To install a certificate and enable HTTPS, use the following steps:
 - a. Click the **Install Certificate** button. The **Install Certificate** wizard starts.

- b. Click the **Browse** button. The **Open certificate file** window opens.
 - c. Navigate to and select the certificate file, and then click the **Open** button.
 - d. Click the **Start** button.
 3. To install a third-party certificate and enable HTTPS, use the following steps:
 - a. Click the **Install Pfx Certificate** button. The **Install Certificate** wizard starts.
 - b. Click the **Browse** button. The **Open certificate file** window opens.
 - c. Navigate to and select the PFX certificate file, and then click the **Open** button.
 - d. In the **Certificate Password** field, enter the password required for the PFX certificate file.
 - e. Click the **Start** button.
 4. To remove the installed certificate and disable HTTPS, click the **Remove Certificate** button.
 5. To generate a signing certificate request, use the following steps:
 - a. Click the **Signing Request** button. The **Generate a Certificate Signing Request** wizard starts.
 - b. Enter the information for the server where HP Web Jetadmin is installed, and then click the **Next** button.
 - c. Click the **Browse** button. The **Select File** window opens.
 - d. Navigate to and select the location to save the file.
 - e. In the **File name** field, enter a name for the signing request file, and then click the **Save** button.
 - f. Click the **Next** button. The **Confirm** page opens.
 - g. Verify that the information is correct, and then click the **Start** button.
 6. Click the **Apply** button.

Use a Separate Instance of Microsoft SQL Server

By default, HP Web Jetadmin installs and uses a database that runs under Microsoft SQL Server Express. An existing installation of HP Web Jetadmin can be configured to use the full version of SQL Server instead of SQL Server Express.

However, HP does not support or test HP Web Jetadmin installations with SQL Server databases other than the version listed in [Database on page 4](#) and, therefore, cannot guarantee the results.

For more information about configuring HP Web Jetadmin to use a separate Microsoft SQL instance, see the *Using Microsoft SQL Server with HP Web Jetadmin* white paper (in English). This white paper is available from the [HP Web Jetadmin Software](#) product support website.

Deploy the Smart Client

HP Web Jetadmin uses the Microsoft ClickOnce Smart Client technology. This technology runs a Microsoft .NET Framework application by automatically downloading and starting the application through a web browser.

The Smart Client application runs as a local .NET Framework application on the host and uses .NET Remoting to communicate with the HP Web Jetadmin service. The following describes the interaction between the HP Web Jetadmin server and the Smart Client application:

- The Smart Client application uses HTTP or HTTPS to initially contact the HP Web Jetadmin server. The default HTTP port is 8000. The default HTTPS port is 8443. You can change the default ports that the Smart Client application uses.
- The HP Web Jetadmin server transfers approximately 2 MB of files for the Smart Client application to the client.
- The Smart Client application runs on the client as the user who is logged in to the computer, executes commands that download approximately 50 MB of HP Web Jetadmin client files, and starts the graphical user interface for the HP Web Jetadmin client application. The web browser is now inactive.

After the Smart Client application starts, the web browser is no longer required. Although HP Web Jetadmin also uses the web browser to deliver online Help and proactive Product Update notifications, the HP Web Jetadmin client application runs locally on the computer.

- The HP Web Jetadmin server downloads all of the relevant information to the client. When new information is available, the HP Web Jetadmin server contacts the client and downloads the new information.

The HP Web Jetadmin installer builds a shortcut on the installation host to the following URL:

`http://<ip_address>:8000/`

The `<ip_address>` is the host where HP Web Jetadmin is installed. Use this URL to access HP Web Jetadmin remotely from anywhere on the company's intranet or WAN.

Only a web browser is required to start the Smart Client session. Administrator rights are not required to run Smart Client applications. However, .NET Framework must be installed. Local administrator rights might be required to install .NET Framework.

In most cases, the Smart Client session starts automatically. However, the local security settings on the workstation might prevent the application from starting automatically. For more information about changing the local security settings, see the Microsoft documentation.

Change the Default HTTP or HTTPS Port for the HP Web Jetadmin Smart Client Application

The HP Web Jetadmin Smart Client uses port 8000 for HTTP and port 8443 for HTTPS by default. You can change these default ports based on your company's requirements.

Use the following steps to change the default HTTP and HTTPS ports:

1. Open Notepad or a similar text editor that has the appropriate create and edit permissions.
2. From the **File** menu, select **Open**. The **Open** window opens.
3. Navigate to the following directory:

`C:\Windows\ServiceProfiles\NetworkService\AppData\Local\HP Inc\HPWebJetadmin\WjaService\config`

4. Open the `HP.Imaging.Wjp.Core.WebServer.config.xml` file.


5. Find the `HttpsPort` and `HttpPort` properties.

```
<property name="HttpsPort">
  <type>HP.Imaging.Wjp.Sdk.Core.Framework.ConfigurationItemString
  </type>
  <value>8443</value>
</property>
<property name="HttpPort">
  <type>HP.Imaging.Wjp.Sdk.Core.Framework.ConfigurationItemString
  </type>
  <value>8000</value>
</property>
```

6. Change the `<value>` attributes to the HTTP and HTTPS ports to use for HTTP and HTTPS communication.
7. From the **File** menu, select **Save**.

Run the Smart Client Application in a Workgroup

You can run the HP Web Jetadmin Smart Client application from a workgroup. You must first change the Microsoft security settings.

 **TIP:** For more information about the security policy settings, see the Microsoft documentation.

Use the following steps to change the Microsoft security settings:

1. On the HP Web Jetadmin server, go to **Start > Control Panel > System and Security > Administrative Tools**.
2. In the right pane, double-click **Local Security Policy**.
3. In the left navigation pane, expand **Local Policies**, and then select **Security Options**.
4. In the right pane, double-click **Network access: Sharing and security model for local accounts**.
5. From the list, select the **Classic - local users authenticate as themselves** option.
6. Click the **OK** button.

Start an HP Web Jetadmin Client Session

After the HP Web Jetadmin installation is complete, you can start an HP Web Jetadmin client session.

Choose one of the following methods to start a client session:

- On the host where HP Web Jetadmin is installed, go to **Start > HP Web Jetadmin 10**, and then select **HP Web Jetadmin**.
- From a supported web browser, access the following URL on the host where HP Web Jetadmin is installed:

```
http://<ip_address>:8000
```

In some cases, you might need to add the URL for HP Web Jetadmin to the trusted security zone in the web browser.

- From the command line, issue the following command:

```
rundll32 dfshim.dll, ShOpenVerbApplication
http://<ip_address>:8000/wja/wja.application?InternalErrorDetails=true
```

To start the HP Web Jetadmin client session in a specific language, use the following URLs. If the corresponding Windows language pack is installed, HP Web Jetadmin displays the content in that language. If the corresponding Windows language pack is not installed, HP Web Jetadmin displays the content in a mixture of English and the specified language.

Table 1-4 URLs to start HP Web Jetadmin in a specific language

Language	URL
Chinese (Simplified)	http://<ip_address>8000/wja/wja.application?lang=zh-cn
Chinese (Traditional)	http://<ip_address>8000/wja/wja.application?lang=zh-tw
English (Worldwide)	http://<ip_address>8000/wja/wja.application?lang=en-us
French (European)	http://<ip_address>8000/wja/wja.application?lang=fr-fr
German	http://<ip_address>8000/wja/wja.application?lang=de-de
Italian	http://<ip_address>8000/wja/wja.application?lang=it-it
Japanese	http://<ip_address>8000/wja/wja.application?lang=ja-ja
Korean	http://<ip_address>8000/wja/wja.application?lang=ko-kr
Portuguese (Brazilian)	http://<ip_address>8000/wja/wja.application?lang=pt-pt
Russian	http://<ip_address>8000/wja/wja.application?lang=ru-ru
Spanish (Mid-Atlantic)	http://<ip_address>8000/wja/wja.application?lang=es-es

Configure the Port for Event Notifications

HP Web Jetadmin directs clients to a TCP connection to receive event notifications. After the client establishes the TCP connection, HP Web Jetadmin sends event notifications that prompt the client to update itself via the standard Microsoft .NET Remoting channel on port 4088.

The HP Web Jetadmin server communicates the port number that is established for event notifications to the client when the client first establishes a connection to the HP Web Jetadmin server. The port that HP Web Jetadmin uses to communicate with the client is somewhat random. A random port might cause a problem if a firewall is configured on the HP Web Jetadmin server.

If a firewall is configured on the HP Web Jetadmin server, you must configure a static port for event notifications and configure the firewall to accept connections through this port. If a firewall is configured on the client, you do not need to configure the firewall on the client to launch the client.

Use the following steps to configure a static port for event notifications:

1. Open Notepad or a similar editor that has the appropriate create and edit permissions.
2. Enter the following code:

```
<ipmc:configuration
xmlns:ipmc="www.hp.com/schemas/imaging/ipmc/config/2004/02/24">
  <property name="ClientEventRouter.ServerPort">
    <type>HP.Imaging.Wjp.Sdk.Core.Framework.ConfigurationItemString
    </type>
    <value>8099</value>
```

```
</property>  
</ipmc:configuration>
```

-
- ⚠ CAUTION:** Make sure that the code is entered exactly as shown here. Observe all of the rules for XML editing. Use the quotes (") that the editor generates.

Do not copy the code from this document, and then paste it into the editor. The characters copied into the editor, such as quotes ("), are not formatted correctly. Characters that are formatted incorrectly cause the HP Web Jetadmin XML parser to fail and the HPWJA service to fail during the startup process.

3. Change the `<value>` attribute to any unused port.
4. From the **File** menu, select **Save**. The **Save As** window opens.
5. Navigate to the following directory on the HP Web Jetadmin server:

```
C:\Windows\ServiceProfiles\NetworkService\AppData\Local\HP Inc\HPWebJetadmin\WjaService\config
```

6. In the **File name** field, enter `Global.config.xml`.
 7. Click the **Save** button.
 8. Restart the HP Web Jetadmin service (HPWJAService).
-

- ⚠ CAUTION:** Be careful when you restart the HP Web Jetadmin service. Critical tasks might be running and clients might be logged in to HP Web Jetadmin. To view the tasks that are running, go to the **Application Management > Overview > Application Management - Active Tasks** task module. To view the clients that are logged in, go to the **Application Management > Overview > Client Management - Active Clients** task module.
-

9. Use any firewall application or a similar application to open the port.

Configure the Firewall Software

You must configure the firewall on the HP Web Jetadmin server host to allow client traffic and other traffic to pass through the correct ports. The firewall monitors HP Web Jetadmin for the ports that it uses and allows traffic.

In some firewall applications, such as Microsoft Firewall, you can specify a program or executable file as a firewall exception. In these cases, you can define the following file as an exception:

```
C:\Program Files\HP Inc\Web Jetadmin 10\bin\HPWJAService.exe
```

The firewall on the client system does not require any special consideration because the client application does not listen to a specific port.

Restart the HP Web Jetadmin Service Manually

You might need to stop and restart the HP Web Jetadmin service manually. For example, after you change a network from hard-wired to wireless, you must restart the HP Web Jetadmin service so that the HP Web Jetadmin application recognizes the change.

-
- ⚠ CAUTION:** Restarting the HP Web Jetadmin service can interrupt critical processes. Before you restart the HP Web Jetadmin service, use the HP Web Jetadmin Broadcast Message feature to notify

the active users that a restart is occurring. Make sure that all of the users are logged off and there are no active tasks running on the HP Web Jetadmin service.

1. To stop all of the HP Web Jetadmin services, run a script that contains the following commands in the specified order:
 - a. `Net stop HPWSProAdapter`
 - b. `Net stop HPWJAService`
 - c. `Net stop mssql$HPWJA`
2. To restart all of the HP Web Jetadmin services, run a script that contains the following commands in the specified order:
 - a. `Net start mssql$HPWJA`
 - b. `Net start HPWJAService`
 - c. `Net start HPWSProAdapter`

Back Up and Restore HP Web Jetadmin


Scripts for backing up and restoring HP Web Jetadmin are available. These scripts provide examples of the recommended method for backing up and restoring the HP Web Jetadmin settings and data, including the Microsoft SQL Server database.

The `WJABackupRestoreInstructions_<language_code>.txt` file provides instructions for running the scripts. The scripts and instructions are available in the following directory:

C:\Program Files\HP Inc\Web Jetadmin 10\WJABackupRestore

Upgrade HP Web Jetadmin When the HPWJA Service Runs as a Network Service (Default)

When the HPWJA service runs as a network service, you can use the default procedure to upgrade HP Web Jetadmin.

 **IMPORTANT:** If the HPWJA service runs as a user account, follow the instructions in the *Upgrade HP Web Jetadmin When the HPWJA Service Runs as a User Account* topic instead of the instructions in this topic.

Use the following steps to upgrade HP Web Jetadmin:


1. Go to the [HP Web Jetadmin - Software Depot](#) website.
2. Click the **Request** button. The HP account login page opens.
3. Choose one of the following options:
 - If you already have an HP account, log in with your credentials.
 - If you do not have an HP account, click the **Sign up** link at the bottom of the page. Follow the instructions to create an HP account, and then log in.
4. On the **HP Web Jetadmin** page, follow the instructions to download the current software.

5. Back up the current HP Web Jetadmin installation. The WJABackupRestoreInstructions_<language_code>.txt file provides instructions for backing up HP Web Jetadmin. This file is located in the following directory on the HP Web Jetadmin server:

C:\Program Files\HP Inc\Web Jetadmin 10\WJABackupRestore
6. From the top menu bar, go to **Help > About**, and then write down the current version as 10.5.nnnnn (10.5 SRx), where nnnnn is the build number and x is the version. This information is required if you need to perform a recovery.
7. In the **Application Management** navigation pane, select **Overview**.
8. In the **Application Management - Active Tasks** task module, resolve or stop all paused or pending tasks.
9. Run the installation executable on the system that hosts HP Web Jetadmin.

Upgrade HP Web Jetadmin When the HPWJA Service Runs as a User Account

If the HPWJA Service runs as a user account instead of a network service, additional steps are required to upgrade HP Web Jetadmin. This procedure includes these additional steps.

 **IMPORTANT:** If the HPWJA Service runs as a network service, follow the instructions in [Upgrade HP Web Jetadmin When the HPWJA Service Runs as a Network Service \(Default\) on page 29](#) instead of the instructions in this topic.


Use the following steps to upgrade HP Web Jetadmin:

1. Go to the [HP Web Jetadmin - Software Depot](#) website.
2. Click the **Request** button. The HP account login page opens.
3. Perform one of the following actions:
 - If you already have an HP account, log in with your credentials.
 - If you do not have an HP account, click the **Sign up** link at the bottom of the page. Follow the instructions to create an HP account, and then log in.
4. On the **HP Web Jetadmin** page, follow the instructions to download the current software.
5. Back up the current HP Web Jetadmin installation. The following file provides instructions for backing up HP Web Jetadmin:

WJABackupRestoreInstructions_<language_code>.txt

This file is located in the following directory on the HP Web Jetadmin server:

C:\Program Files\HP Inc\Web Jetadmin 10\WJABackupRestore
6. From the top menu bar, go to **Help > About**, and then write down the current version as 10.5.nnnnnn (10.5 SRS), where nnnnnn is the build number and x is the Service Release version. This information is required to perform a recovery.
7. In the **Application Management** navigation pane, select **Overview**.

8. In the **Application Management - Active Tasks** task module, resolve or stop all paused and pending tasks.
 9. Export the device configuration templates. Use the following file name:
ExportedTemplates_WJARunningAsUser_WJAVersion_10.5_SRx
SRx is the Service Release version you noted in Step 6.
 10. If other templates, such as device discovery or alerts, are configured with passwords, export those templates to files with file names similar to the file name in Step 9.
 11. Change the HP Web Jetadmin service to run as a network service.
 12. Restart the HP Web Jetadmin service. The HP Web Jetadmin client automatically closes.
 13. Start the HP Web Jetadmin client.
 14. Import the templates you exported in Steps 9 and 10. Make sure that you select the **Overwrite duplicate templates** check box in the import wizard.
 15. On the system that hosts HP Web Jetadmin, run the installation executable.
 16. Export the device configuration templates. Use the following file name:
ExportedTemplates_WJARunningAsNetworkService_WJAVersion_10.5_SRY
SRY is the Service Release version of the upgrade you just installed.
 17. If other templates, such as device discovery or alerts, are configured with passwords, export those templates to files with file names similar to the file name in Step 16.
 18. Change the HP Web Jetadmin service to run as a user account.
 19. Restart the HP Web Jetadmin service. The HP Web Jetadmin client automatically closes.
 20. Start the HP Web Jetadmin client.
 21. If any of the original XML Ticket Pusher (XTP) tickets are missing, import the XTP tickets.
-
-  **NOTE:** If XTP tickets were installed and HP Web Jetadmin was running as a user account before you started the upgrade, all the XTP tickets installed during the upgrade are missing when you change the HP Web Jetadmin service to run as a user account.
-
22. (Optional) Install the additional XTP tickets included with the current Feature Pack that are available only when the HPWJA Service runs as a network service.

The XTP tickets prebundled with the Feature Pack are not available when HP Web Jetadmin runs as a user account. You must import these XTP tickets individually.

To obtain a ZIP file that contains all the prebundled XTP tickets, go to the [HP Web Jetadmin - Software Depot](#) website, click the **Request** button, and then follow the instructions provided.
 23. Import the templates you exported in Steps 16 and 17.
 24. Add the global credentials again.
 25. Verify that the correct settings are in the templates and the templates are working.

Feature Packs

Feature Packs dynamically add new and updated device configuration options and device images to an existing installation of HP Web Jetadmin. You gain access to the new and updated functionality without installing and qualifying a new version of the full HP Web Jetadmin application.

Feature Packs are cumulative. A new Feature Pack includes the new and updated functionality being released and all the functionality released in previous Feature Packs.

When a Feature Pack is initially released, the software and online Help for the new and updated features are available only in English. The localized software and online Help for the new and updated features will be provided later, either in a new Feature Pack or a new version of HP Web Jetadmin.

Import and Apply a Feature Pack

Feature Packs are available as signed HP Binary (HPb) files. You import the signed HPb file into HP Web Jetadmin, and then apply the HPb file. You must restart the HP Web Jetadmin service before the new functionality is available in HP Web Jetadmin.

HP Web Jetadmin Administrator rights are required to apply Feature Packs.

Each Feature Pack requires a minimum version of HP Web Jetadmin. If you import a Feature Pack into a version of HP Web Jetadmin that is earlier than the minimum required version, a message displays the minimum required version.

CAUTION: After a Feature Pack is applied, you cannot remove it from HP Web Jetadmin. HP recommends that you back up HP Web Jetadmin before you apply a Feature Pack.


Use the following steps to import and apply a Feature Pack:

1. Go to the [HP Web Jetadmin - Software Depot](#) website.
2. Click the **Request** button. The HP account login page opens.
3. Perform one of the following actions:
 - If you already have an HP account, log in with your credentials.
 - If you do not have an HP account, click the **Sign up** link at the bottom of the page. Follow the instructions to create an HP account, and then log in.
4. On the **HP Web Jetadmin** page, follow the instructions to download the current Feature Pack.
5. From the top menu bar, go to **Tools > Feature Packs**.
6. Click the **Import** button. The **Open** window opens.
7. Navigate to and select the HPb file, and then click the **Open** button.
8. Perform one of the following actions:
 - If the Feature Pack has not been imported yet, HP Web Jetadmin displays the **Success** window. Click the **OK** button. The HPb file is listed on the **Feature Packs** window with a status of **Imported (Apply Pending)**.
 - If the Feature Pack has already been imported, but has not been applied yet, HP Web Jetadmin displays the **Warning** window. To overwrite the existing Feature Pack, click the **Yes** button.

9. Select the Feature Pack, and then click the **Apply** button. The **Confirmed Feature Pack applying** window opens.

The status of the selected Feature Pack must be **Imported**.

10. Click the **OK** button. The **Success** window opens.
11. Click the **OK** button. The Feature Pack is listed on the **Feature Packs** window with a status of **Applied (Service Restart Required)**.
12. Restarting the HP Web Jetadmin service can interrupt critical processes. Use the HP Web Jetadmin Broadcast Message feature to notify active users that the service is being restarted. Then make sure that all the users are logged off and there are no active tasks on the HP Web Jetadmin server.
13. Restart the HP Web Jetadmin service (HPWJAService). The status of the Feature Pack changes to **Applied**.

 **CAUTION:** If you restart the server instead of the HP Web Jetadmin service, the status of the Feature Pack changes to **Applied** only if the SQL service is fully started before the HP Web Jetadmin service starts.

Delete an Imported Feature Pack

You can delete a Feature Pack that has been imported into HP Web Jetadmin only if the Feature Pack has not been applied yet.

Use the following steps to delete an imported Feature Pack:

1. From the top menu bar, go to **Tools > Feature Packs**.
2. Select the Feature Pack, and then click the **Delete** button. The **Delete Feature Pack** window opens.
The status of the selected Feature Pack must be **Imported**.
3. Click the **OK** button. The **Success** window opens.
4. Click the **OK** button.

Display the Release Notes for a Feature Pack

You can view the Release Notes for a Feature Pack in a text editor. The Release Notes are provided only in English.

Use the following steps to display the Release Notes for a Feature Pack:

1. From the top menu bar, go to **Tools > Feature Packs**.
2. Select the Feature Pack, and then click the **Details** button.

Enable FIPS on the HP Web Jetadmin Server

You can enable Federal Information Processing Standard (FIPS) only after you upgrade to HP Web Jetadmin 10.4 or later and then make some required changes to the settings in HP Web Jetadmin. You must follow the instructions provided in this topic in the order specified.

The MD5 and DES protocols are blocked after FIPS is enabled. Communication over SNMPv1/SNMPv2 is still possible after FIPS is enabled.

Upgrade to HP Web Jetadmin 10.4 or later

Use the following steps to upgrade HP Web Jetadmin:

1. On the HP Web Jetadmin server, go to the [HP Web Jetadmin - Software Depot](#) website.
2. Click the **Request** button. The HP account login page opens.
3. Choose one of the following options:
 - If you already have an HP account, log in with your credentials.
 - If you do not have an HP account, click the **Sign up** link at the bottom of the page. Follow the instructions to create an HP account, and then log in.
4. On the **HP Web Jetadmin** page, follow the instructions to download the current software.
5. Double-click the EXE file.
6. Follow the instructions in the wizard.
7. If the installation stops with a warning that a restart is required, restart the HP Web Jetadmin server. Launch the installer again to continue the installation.
8. When the installation is complete, click the **Finish** button.


Make the required changes to the settings in HP Web Jetadmin and on the devices

If you omit the following steps, HP Web Jetadmin might not be able to communicate with the devices after FIPS is enabled. HP Web Jetadmin displays a status of **Device Communication Error** for these devices.

1. If HP Web Jetadmin has already discovered devices by using an SNMPv3 credential that specifies the MD5 and DES protocols, SNMP communication with those devices will not work after FIPS is enabled. The SNMPv3 credential for these devices must be changed to the SHA-1 and AES-128 protocols. However, you cannot use HP Web Jetadmin to determine if the SNMPv3 credential for the devices uses the MD5 and DES protocols.

Use the following steps to update the SNMPv3 credential on all of the devices that use SNMPv3:

- a. In the **Device Management** navigation pane, right-click **Configuration**, and then select **Create configuration template**. The **Create Device Configuration Template** wizard starts.
- b. Select the device models to configure, and then click the right arrow button.
- c. Select the network cards to configure, and then click the right arrow button.
- d. Click the **Next** button. The **Specify template options** page opens.
- e. In the **Name** field, enter a name for the template (up to 48 characters).
- f. In the **Device settings** navigation pane, go to **Security > SNMP Version Access Control**.
- g. Select the **Modify SNMPv3** option.
- h. In the **Current SNMPv3 Credential** section, enter the user name, authentication protocol and passphrase, and privacy protocol and passphrase that are currently configured for SNMPv3. The current SNMPv3 credentials are required.

- i. In the **New SNMPv3 Credential** section, select **SHA-1** from the **Authentication Protocol** list, and select **AES-128** from the **Privacy Protocol** list.
 - j. If required, enter the new values for the user name, authentication passphrase, and privacy passphrase.
-
-  **CAUTION:** To change the authentication and privacy passphrases, the current passphrases must be specified in the device configuration template even if global SNMPv3 credentials are stored in HP Web Jetadmin. If the current passphrases are not specified, the configuration fails.
-
- k. Click the **Next** button. The **Confirm** page opens.
 - l. Verify that the information is correct, and then click the **Create Template** button. The **Results** page opens.
 - m. Click the **Done** button.
 - n. In the **Device Management** navigation pane, right-click **Configuration**, and then select **Apply configuration template**. The **Apply Device Configuration Template** wizard starts.
 - o. Select the device configuration template that you just created from the list, and then click the **Next** button. The **Select devices** page opens.
 - p. From the **Available devices** list, select the devices to configure, and then click the > button.
 - q. Click the **Next** button. The **Confirm** page opens.
 - r. Verify that the information is correct, and then click the **Apply Template** button. The **Results** page opens.
 - s. Click the **Done** button.
2. Use the following steps to delete the SNMPv3 global credentials that use the MD5 and DES protocols:
 - a. From the top menu bar, go to **Tools > Options > Shared > Credentials > Device > SNMPv3**.
 - b. Select the SNMPv3 credential that uses the MD5 and DES protocols from the list, and then click the **Remove** button. The **Confirm Delete** window opens.
 - c. Click the **Yes** button.
 - d. Repeat these steps for each SNMPv3 credential that uses the MD5 and DES protocols.
 3. Run a discovery to rediscover all of the SNMPv3-configured devices.
 4. Trap forwarding that is configured to use SNMPv3 credentials with the MD5 and DES protocols does not work after FIPS is enabled. Use one of the following procedures to update the alert subscriptions that are configured to forward SNMP traps to a server using SNMPv3 credentials with the SHA-1 and AES-128 protocols.



NOTE: Alert subscriptions that are configured to only write alerts to the alert history log or to send email notifications when alerts occur do not need to be updated.

Option 1: Update the alert subscriptions that were created by using an alert subscription template that is configured to forward SNMP traps

- a. In the **Device Management** navigation pane, go to **Alerts > All Subscriptions**.

- b. In the **All Subscriptions** pane, click the **Expand all** button to display the details for each alert subscription.
- c. To identify the alert subscription templates that must be updated, look for alerts that have **SNMPv3 Trap Forwarding** in the **Notification Type** column and have **Linked** in the **Linked to Template** column. The name of the alert subscription template is shown in the **Subscription Name** column.
- d. In the **Device Management** navigation pane, go to **Alerts > Templates**.
- e. In the **Alerts - Subscription Templates** pane, select the alert subscription template from the list, and then click the **Edit** button. The **Edit Subscription Template** wizard starts.
- f. Click the **Next** button until the **Specify notification settings** page opens.
- g. In the **SNMPv3 credential** section, select **SHA-1** from the **Authentication protocol** list, and select **AES-128** from the **Privacy protocol** list.
- h. If required, enter the new values for the user name, authentication passphrase, and privacy passphrase.
- i. Click the **Next** button until the **Confirm** page opens.
- j. Verify that the information is correct, and then click the **Save Template** button. The **Results** page opens.
- k. Click the **Done** button.

All of the alert subscriptions that are linked to this alert subscription template are automatically updated with the new SNMPv3 credentials.

- l. Repeat these steps for each alert subscription template.

Option 2: Update the alert subscriptions that were created without using an alert subscription template and are configured to forward SNMP traps

- a. In the **Device Management** navigation pane, go to **Alerts > All Subscriptions**.
- b. In the **All Subscriptions** pane, select the alert subscription from the list, and then click the **Edit Subscription** button. The **Edit Subscription** wizard starts.
- c. Click the **Next** button until the **Specify notification settings** page opens.
- d. In the **SNMPv3 credential** section, select **SHA-1** from the **Authentication protocol** list, and select **AES-128** from the **Privacy protocol** list.
- e. If required, enter the new values for the user name, authentication passphrase, and privacy passphrase.
- f. Click the **Next** button until the **Confirm** page opens.
- g. Verify that the information is correct, and then click the **Edit Subscription** button. The **Results** page opens.
- h. Click the **Done** button.
- i. Repeat these steps for each alert subscription that was created without using an alert subscription template.

-or-

If any future changes are made to the alert subscriptions, all of the alert subscriptions must be changed. To prevent this in the future, HP recommends that you use the following steps to create new alert subscriptions that are linked to alert subscription templates:


- a. In the **Device Management** navigation pane, go to **Alerts > All Subscriptions**.
- b. In the **All Subscriptions** pane, select the alert subscription from the list, and then click the **Unsubscribe** button. The **Delete Alert Subscriptions** wizard starts.
- c. Click the **Unsubscribe** button. The **Results** page opens.
- d. Click the **Done** button.
- e. In the **Device Management** navigation pane, go to **Alerts > Templates**.
- f. In the **Alerts - Subscription Templates** pane, select the alert subscription template from the list, and then click the **Apply** button. The **Apply Alert Subscription Template** wizard starts.



NOTE: If an alert subscription template is not available, create an alert subscription template that meets your specific needs.

- g. From the **Available devices** list, select the devices, and then click the **>** button.
 - h. Click the **Next** button.
 - i. Choose one of the following options:
 - To link the selected alert subscription template to this alert subscription, select the **Link template to subscription** option. Changes that are made to the selected alert subscription template are automatically applied to the devices that are associated with this alert subscription.
 - To create an alert subscription that is not linked to the selected alert subscription template, select the **Do NOT link template to subscription** option, and then enter a name for this alert subscription in the **Subscription name** field. Changes that are made to the alert subscription template are not applied to the devices that were previously configured with this alert subscription template.
 - j. Click the **Next** button. The **Confirm** page opens.
 - k. Verify that the information is correct, and then click the **Apply Template** button. The **Results** page opens.
 - l. Click the **Done** button.
 - m. Repeat these steps for each alert subscription that was created without using an alert subscription template.
5. On the client machines where the HP Web Jetadmin client is launched, use the following steps to enable the TLS protocol:
- a. Open a supported web browser.
 - b. Go to **Tools > Internet options**, and then click the **Advanced** tab.
 - c. Scroll down to the **Security** section, and then select the check boxes for one or more of the TLS versions (TLS 1.0, TLS 1.1, and TLS 1.2).

6. Use the following steps to verify that the devices are configured to communicate with the TLS protocol:
 - a. Select the device from any device list.
 - b. On the **Config** tab, go to **Network > Mgmt Protocol**.
 - c. Verify that any version of TLS (TLS 1.0, TLS 1.1, and TLS 1.2) is enabled.
 - d. Repeat these steps for each device.
7. Use the following steps to enable FIPS-140 mode on the devices. Enabling FIPS-140 mode affects only the following device configuration options:
 - **SNMP Version Access Control** configuration option: The SHA-1 authentication protocol and AES-128 privacy protocol must be configured.
 - **Mgmt Protocol** configuration option: The TLS 1.0, TLS 1.1, or TLS 1.2 protocol must be enabled.

 **TIP:** The following steps are not required. However, you can use these steps to troubleshoot any FIPS-related problems.

- a. Select the device from any device list.
- b. On the **Config** tab, go to **Security > FIPS-140 Mode**.
- c. Select the **Enabled** option.
- d. Click the **Apply** button.
- e. Repeat these steps for each device.

If any of the following device configuration options are configured on a device, enabling FIPS-140 mode fails for that device:


- **SNMP Version Access Control** configuration option: The MD5 authentication and DES privacy protocols must not be specified.
- **IPsec/Firewall Policy** configuration option: The DES-CBC-MD5 algorithm must not be specified for the **Kerberos** setting.
- **Upload Jetdirect Certificate** configuration option: Certificates must not be signed by using MD5 or earlier (MD2 or MD4).
- **Upload CA Certificate** configuration option: Certificates must not be signed by using MD5 or earlier (MD2 or MD4).
- **Mgmt Protocol** configuration option: The SSL 3.0 or earlier protocol must not be enabled.

HP Web Jetadmin does not report the exact reason for the failure. However, if you use the device HP Embedded Web Server to enable FIPS-140 mode, the HP Embedded Web Server does report the exact reason for the failure. The FIPS-140 mode setting is available in the HP Embedded Web Server from the **Networking** tab > **Security** link > **Settings** page.

Enable FIPS on the HP Web Jetadmin server

Use the following steps to enable FIPS on the HP Web Jetadmin server:

1. Stop the following services. These services must be stopped in the specified order.

- a. HPWSProAdapter
 - b. HPWJAService
 - c. mssql\$HPWJA
2. Use the following steps to enable FIPS on the HP Web Jetadmin server as a local security policy:
-
-  **TIP:** For more information about the **System cryptography** setting, see the *System cryptography: Use FIPS compliant algorithms for encryption, hashing, and signing* document. This document is available from the [Microsoft Documentation](#) website.
-
- a. Go to **Control Panel > Administrative Tools > Local Security Policy > Local Policies > Security Options**.
 - b. Right-click **System cryptography: Use FIPS compliant algorithms for encryption, hashing and signing**, and then select **Properties**.
 - c. On the **Local Security Setting** tab, select the **Enabled** option, and then click the **OK** button.
3. Start the following services. These services must be started in the specified order.
- a. mssql\$HPWJA
 - b. HPWJAService
 - c. HPWSProAdapter
4. Use the following steps to verify that HP Web Jetadmin can communicate with all of the devices:
- a. In the **All Devices** list, look for any devices that have **Device Communication Error** in the **Status** column.
 - b. Verify that you can use HP Web Jetadmin to configure a device.
 - c. In the **All Devices** list, right-click a device, and then select **Refresh Selection (Full)**. Verify that the refresh completes.

If any devices have a status of **Device Communication Error**, you cannot use HP Web Jetadmin to configure a device, or the **Refresh Selection (Full)** fails, access the device HP Embedded Web Server, and then verify the following settings:

- Click the **Networking** tab, and then click the **Network Settings** link. If SNMPv3 is enabled, verify that the authentication protocol is SHA *n* and the privacy protocol is AES.
- Click the **Security** tab, and then click the **Certificate Management** link. Select a certificate, and then click the **View Details** button. Verify that the self-signed certificate uses a signature algorithm other than MD5. Repeat this step for each self-signed certificate.

Uninstall HP Web Jetadmin


When you uninstall HP Web Jetadmin, the Microsoft SQL Server Express Edition instance of the HP Web Jetadmin database is removed. HP recommends that you back up the database and store the files in a secure location before you begin the uninstallation in case you need to restore the database.

To uninstall HP Web Jetadmin, perform the following steps:

1. Go to **Start > Control Panel > Uninstall a program**.

2. Right-click **HP Web Jetadmin 10.5**, and then select **Change**. The **HP Web Jetadmin 10.5 - InstallShield Wizard** starts.
3. Click **Next**.
4. Select the **Remove** option, and then click **Next**.
5. Follow the instructions in the wizard.
6. Review the MSI <xxxxx>.LOG file, where <xxxxx> is a randomly generated string. The log file is available in the following directory:

C:\Users\<username>\AppData\Local\Temp

 **TIP:** You can uninstall HP Web Jetadmin from the command line. For instructions, see the *Uninstall HP Web Jetadmin from the Command Line* white paper (in English). This white paper is available from the [HP Web Jetadmin Software](#) product support website.

Manage Licenses

There are some features for HP Web Jetadmin that require a license. After you obtain the license for a feature, you must install the license to enable the functionality.

To manage the licenses, perform the following steps:

1. Go to **Start > All Programs > HP Web Jetadmin 10**, and then select **HP Web Jetadmin License Manager**.
2. To install a license, perform the following steps:
 - a. Click the **Add** button.
 - b. On the **Enter License** window, enter the license key, and then click the **Apply** button.
3. To delete a license, select the license from the list, and then click the **Remove** button.
4. To refresh the list of licenses, click the **Refresh** button.
5. Click the **Exit** button.
6. Restart the HP Web Jetadmin service (HPWJA Service).

Install a Zebra License

A Zebra license enables firmware upgrades, device alerts, and XML Ticket Pusher (XTP) features for Zebra printers. Managed Print Services (MPS) account holders must generate a license request, and send the request to HP Support. HP Support sends a license key that must be installed to enable these features.

Use the following steps to generate a license request, and then install and activate the Zebra license:

1. Press **Shift+Z+L**. The **HP WJA - Zebra License Manager** window opens.
2. Click the **Generate Zebra License Request** button. The **HP WJA - Zebra License Manager(License Request Info)** window opens.
3. Click the **Export** button.

4. On the **Save As** window, browse to the location to save the license request file, and then click the **Save** button.
5. On the confirmation window, click the **OK** button.
6. On the **HP WJA - Zebra License Manager(License Request info)** window, click the **Cancel** button.
7. On the **HP WJA - Zebra License Manager** window, click the **Close** button.
8. Send the license request file to HP Support, and request a Zebra license key.
9. When you receive the license key, press **Shift+Z+L**. The **HP WJA - Zebra License Manager** window opens.
10. Click the **Install Zebra License** button. The **HP WJA - Zebra License Manager(License Key)** window opens.
11. Enter the license key in the text field.
12. Click the **Activate** button.
13. On the confirmation window, click the **OK** button.
14. On the **HP WJA - Zebra License Manager** window, click the **Close** button.

A End-User License Agreement

When you download, register, and install HP Web Jetadmin, you must read the End-User License Agreement (EULA) and acknowledge that you agree to the terms.

After HP Web Jetadmin is installed, the EULA is available from the online Help. To view the EULA, go to **Help > About**, and then click the **View the End-User License Agreement** link.

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