



BACK UP, RESTORE, AND CLONE AN HP WEB JETADMIN INSTALLATION

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OVERVIEW

Files are typically backed up to perform fault tolerance in case a failure occurs on the machine where HP Web Jetadmin is installed. A significant effort might have been involved in configuring the HP Web Jetadmin settings, such as alerts or groups. Saving the key files that store these configurations as a safety precaution is always wise. Installing a duplicate installation of HP Web Jetadmin (cloning) without having to reconfigure these settings might also be desirable. This white paper discusses the process of backing up, restoring, and cloning an HP Web Jetadmin installation and the process of exporting and importing specific areas of an installation.

WHY BACK UP HP WEB JETADMIN?

A significant effort might have been involved in configuring the HP Web Jetadmin settings, such as alerts or groups. While these settings are not deleted during an upgrade from an older version of HP Web Jetadmin to a newer version, this information should be backed up in case any problems occur during an upgrade.

Backing up HP Web Jetadmin files on a regular basis is also an excellent precaution in case a failure occurs on the machine where HP Web Jetadmin is installed. For example, the following events might cause the HP Web Jetadmin files to be corrupted or deleted:

- A disk crashes
- HP Web Jetadmin is uninstalled
- An accidental deletion occurs
- A machine crashes while the files are open or in use

BACK UP AN HP WEB JETADMIN INSTALLATION THAT IS CONFIGURED FOR A LOCAL DATABASE

HP Web Jetadmin installs a Microsoft® SQL Server Express database and places many files in the Program Files directory and the Documents and Settings directory. It is critical to back up both the database and the file structure to ensure that all of the essential areas of HP Web Jetadmin can be restored.

HP Web Jetadmin includes scripts for both backing up and restoring an installation to simplify the process. Users do not need to know all of the files that must be backed up nor do they need to manually copy the files and database. The backup.bat script file ensures that the following items are properly backed up:

- HP Web Jetadmin SQL Server Express database instance
- HP Web Jetadmin Settings directory structure

The backup and restore scripts are available in the following HP Web Jetadmin directory:

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

Note When using HP Web Jetadmin 10.4 and earlier, the HP Inc directory does not exist. Use the Hewlett Packard directory instead.

The following files are available in the WJABackupRestore directory:

- backup.bat
- restore.bat
- osql_backup.sql

- osql_restore.sql
- WJABackupRestoreInstructions_<language_code>.txt

The .bat files include commands that copy the files and launch the .sql files. The .sql files include commands that back up and restore the database.

The backup and restore scripts must be run on NTFS file systems. NTFS file permissions are integral to HP Web Jetadmin and can be restored only when both the backup and restore scripts are run in NTFS. The backup and restore scripts stop the HP Web Jetadmin service. The operator should always check for clients that are using the HP Web Jetadmin application before running these scripts. The restore script overwrites all of the settings and data when it executes. The operator should be fully aware of this due to the potential for lost data.

The following data in the directory structure and database is backed up:

- Current devices and device attributes
- Collected device metrics
- Stored reports, data export settings, and archives
- Device credentials (see the Note below)
- Stored device configurations
- Alerts settings, including notification and supplies management details
- Group details and settings
- Application history details
- Application settings, including templates, schedules, filters, and views that were previously saved
- Application security settings, including user roles and stored credentials (see the Note below)

The following data is not backed up and, therefore, is not restored:

- SSL certificate, if installed
- HP Web Jetadmin client-stored settings
- HP Web Jetadmin base installation
- Paused configuration tasks

Note When restoring the settings and database information to the HP Web Jetadmin host, encrypted data no longer functions if the host or Microsoft Windows® OS instance is different from the host or Windows OS instance that was used to process the original file-set. In these cases, the encrypted data can be restored manually by using the HP Web Jetadmin User Interface. Encrypted data includes global credentials, device passwords, SMTP user and password settings, HTTP proxy user and password settings, user-defined settings, and so on.

Note User-defined settings are restored on a different host or Windows OS instance.

Note In HP Web Jetadmin 10.3 SR6 and later, you can export templates that contain passwords and then import those templates into another HP Web Jetadmin instance. In HP Web Jetadmin 10.3 SR5 and earlier, you can export only templates that do not contain any user-defined settings and then import those templates into another HP Web Jetadmin instance.

Administrative access is required because the backup and restore scripts start and stop the HP Web Jetadmin service. To launch a Command Prompt window with administrative access, go to **Start > Programs > Accessories**, right-click **Command Prompt**, and then select **Run as administrator**. The title bar on the Command Prompt window should be **Administrator: Command Prompt**.

Permissions problems related to the HPWJA_DB_BACKUP.dat file might occur. When the restore.bat file runs, OSQL commands are activated by the Network Service user under which the SQL instance also runs. To ensure that the restore is successful, verify that the HPWJA_DB_BACKUP.dat file is located in a directory to which Network Service has read access.

Some server backup programs might not be able to read the SQL files on the HP Web Jetadmin installation host. The SQL files remain in use while the HP Web Jetadmin service runs. The HP Web Jetadmin service must be stopped to allow the backup to execute correctly.

When HTTPS is enabled in HP Web Jetadmin, the customer provides a server-specific SSL certificate. This server-specific SSL certificate is installed in the Local Computer Certificate Store and can be used only on the server for which it was generated. If the settings are restored to any other server, including an OS that is reinstalled on the same physical hardware, the HTTPS configuration is lost. An authorized user must re-enable the HTTPS configuration from the HP Web Jetadmin console.

If the HP Web Jetadmin installation is configured to connect to Microsoft SQL Server (non-Express edition) that resides on the same server host, the SQL Server instance and database must exist and be correctly configured before the restore script runs. The restore script must be modified to restore data to the SQL Server instance. Providing the details for this configuration is beyond the scope of this document. For more information, see the *Using Microsoft SQL Server with HP Web Jetadmin* white paper. This white paper is available from the HP Web Jetadmin [support page](#).

HP Web Jetadmin also offers a licensed feature for off-host connections to SQL Server. These configurations are not considered in the backup and restore script examples. Special backup and restore considerations are required when working with off-host connections to SQL Server.

Run the backup script

To run the backup script, open a command window, change to the directory where the batch file is located, and type **backup**.

The following steps occur during the backup:

1. Variables are set that define the directories where the files and SQL Server Express database are located.
2. The script checks for the existence of the files or directories. If files or directories from a previous backup already exist, errors are posted and the script terminates. If this occurs, move the previous database backup files and Settings directory to a separate location outside of the C:\Program Files\HP Inc\Web Jetadmin 10\WJABackupRestore directory.
3. A disclaimer appears stating that the backup file is for illustrative purposes only and instructing the user to press any key to begin the process.
4. The HP Web Jetadmin service is stopped before the files are copied or the database is backed up. The backup script runs the following commands to stop the HP Web Jetadmin service:

```
%SERVICE% -stop
```

```
%SERVICE% -wait-on-stop
```

where

```
SERVICE=C:\Program Files\HP Inc\Web Jetadmin 10\bin\HPWJAServiceCtrl.exe
```

If the service cannot be stopped for any reason, errors are posted.

5. After the service is stopped, the backup process begins by running the following .sql command to back up the database:

```
%OSQL% -S localhost\HPWJA -E -i osql_backup.sql > osql_backup.log
```

where

```
OSQL=C:\Microsoft SQL Server\90\Tools\Binn\OSQL.EXE
```

6. The .sql script runs the following command to create the HPWJA_DB_BACKUP.dat file and copy the file to the WJABackupRestore directory:

```
copy %DB_BACKUP_DIR%\%DB_BACKUP_FILENAME% %DB_BACKUP_FILENAME%
```

where

```
DB_BACKUP_DIR=C:\HPWJA_DB_BACKUP
```

```
DB_BACKUP_FILENAME=HPWJA_DB_BACKUP.dat
```

7. The following command copies the necessary directories from the HPWebJetadmin directory to the Settings directory in WJABackupRestore:

```
xcopy /e/v/i/q/h/k/o/x %SETTINGS_DIR% %SETTINGS_BACKUP_DIR%
```

where

```
SETTINGS_DIR=C:\Windows\ServiceProfiles\NetworkService\AppData\Local\HP  
Inc\HPWebJetadmin
```

```
SETTINGS_BACKUP_DIR=C:\Program Files\HP Inc\Web Jetadmin 10\  
WJABackupRestore\Settings
```

8. The following command starts the HP Web Jetadmin service:

```
%SERVICE% -start
```

The WJABackupRestore directory now includes the following new files:

- HPWJA_DB_BACKUP.dat—Database backup
- osql_backup.log—Log file capturing the details of the database backup

There is also now a Settings directory that contains all of the files that were copied from the following directory:

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

RESTORE AN HP WEB JETADMIN INSTALLATION

Restoring a broken or removed installation of HP Web Jetadmin involves installing a fresh copy of the same Service Release version of HP Web Jetadmin on which a backup was performed, and then copying the files that were backed up on top of the fresh installation. After the installation of a fresh HP Web Jetadmin is complete, stop the HP Web Jetadmin service, copy the backup files to the appropriate locations, and then restart the HP Web Jetadmin service.

One of the following restoration scenarios is possible:

- HP Web Jetadmin is installed on the same host where the backup was performed, and that host has the same supported Windows OS instance that was installed when the backup was performed.
- HP Web Jetadmin is installed on the same host where the backup was performed, but that host has a supported Windows OS instance that is different from the Windows OS instance that was installed when the backup was performed.
- HP Web Jetadmin is installed on a different host than the host where the backup was performed.

Note When restoring the settings and database information to the HP Web Jetadmin host, encrypted data no longer functions if the host or Windows OS instance is different from

the host or Windows OS instance that was used to process the original file-set. For more information, see item 3 in [Limitations of cloning](#). If there are templates that contain passwords, see items 2 and 5 in [Limitations of cloning](#).

The following settings and data are required to restore HP Web Jetadmin:

- A file-set from a previously performed backup using the backup.bat script
- HP Web Jetadmin running on a supported host and in the same state as was recorded in the backup procedure
- Administrative access to this host

Run the restore script

Ensure that the backup file-set that was created by running the backup.bat script is located in the C:\Program Files\HP Inc\Web Jetadmin 10\WJABackupRestore directory. There must be a Settings directory of files and an HPWJA_DB_BACKUP.dat file, which is the database backup.

When the restore.bat script executes, all of the settings that were specified during the HP Web Jetadmin installation are overwritten with the values from the backup. This means that after a restore, the setting for the Data Collection feature reflects the value from the backup. The Data Collection feature is available by going to **Tools > Options > Shared > General > Data Collection**. The Data Collection feature was introduced in HP Web Jetadmin 10.3 SR6.

HP Web Jetadmin 10.3 SR8 introduced Feature Packs. Because the imported and applied Feature Pack is included in the backup, the restore.bat script overrides the installed Feature Pack on the new host. For example, assume that a backup of HP Web Jetadmin 10.3 SR8 with Feature Pack 1 was created. If this backup is restored on an installation of HP Web Jetadmin 10.3 SR8 with Feature Pack 2, the HP Web Jetadmin server will have HP Web Jetadmin 10.3 SR8 with Feature Pack 1 after the restore.

To run the restore script, open a command window, change to the directory where the batch file is located, and type **restore**.

The following steps occur during the restore:

1. Variables that define the directories where the files and SQL Server Express are located are set.
2. The script checks for the existence of files and directories. If files and directories from a previous backup already exist, errors are posted and the script terminates. If this occurs, move the previous database backup files and Settings directory to a separate location outside of the C:\Program Files\HP Inc\Web Jetadmin 10\WJABackupRestore directory.
3. A disclaimer and acceptance prompt is provided to prevent the existing data from being accidentally overwritten.
4. The following commands stop the HP Web Jetadmin service:

```
%SERVICE% -stop
```

```
%SERVICE% -wait-on-stop
```
5. The following command restores the database:

```
%OSQL% -S localhost\HPWJA -E -i osql_restore.sql > osql_restore.log
```

See the osql_restore.log for the results.
6. The following command restores the file structure for the Settings directory:

```
xcopy /e/v/i/q/h/k/o/x %SETTINGS_BACKUP_DIR% %SETTINGS_DIR%
```

A message appears in the command window that specifies the number of files that were copied and states that an osql_restore.log file is available for viewing. There should be no errors present.

7. The following commands start the HP Web Jetadmin service:

```
%SERVICE% -start
```

```
%SERVICE% -wait
```

HP Web Jetadmin can now be launched to determine if all of the printers are present and all of the settings are restored.

BACK UP AN HP WEB JETADMIN INSTALLATION THAT IS CONFIGURED FOR A REMOTE DATABASE

It might be necessary to run scheduled backups of an HP Web Jetadmin installation that points to a remote SQL Server database instead of the local SQL Server Express database. HP Web Jetadmin provides a script to back up the default SQL Server Express database instance that is installed with the base product. The script also backs up the HP Web Jetadmin configuration settings. If the backup and restore scripts in the HP Web Jetadmin installation directory (WJABackupRestore) were used previously to back up the local HP Web Jetadmin installation, consider the following options to ensure that the remote database is backed up:

- **Option 1:** Backing up and restoring the remote database is not done by using HP Web Jetadmin. There might already be other processes in place for backing up the remote SQL Server database and the HP Web Jetadmin Settings directory. In this case, the HP Web Jetadmin backup script is not required.
- **Option 2:** Continue to use the HP Web Jetadmin backup script, but remove or comment out the lines in the script that back up the database. The script continues to back up the HP Web Jetadmin Settings directory. There might already be other processes in place for backing up the remote SQL Server database. In this case, backing up the remote database is not performed by HP Web Jetadmin.
- **Option 3:** Modify the HP Web Jetadmin backup script to back up the remote database and the HP Web Jetadmin Settings directory. The lines in the script that back up the default SQL Server Express database instance can be replaced with custom commands that back up the remote database. For example, the HP Web Jetadmin backup.bat file runs the following SQL script on the same machine to back up the database:

```
%OSQL% -S localhost\HPWJA -E -i osql_backup.sql > osql_backup.log
```

To run the script on the remote SQL server, change this line to the following:

```
%OSQL% -H wksta_server -S SQL_server\Instance -U user -P password -i osql_backup.sql > osql_backup.log
```

The SQL script backs up a database named HPWJA to DRIVE:\.

```
BACKUP DATABASE HPWJA TO DISK =  
'C:\HPWJA_DB_BACKUP\HPWJA_DB_BACKUP.dat'
```

To back up any database name to a shared UNC path, change this script to the following:

```
BACKUP DATABASE database_name TO DISK = '\\WJA  
_server\shared_directory\HPWJA_DB_BACKUP\HPWJA_DB_BACKUP.dat'
```

The backup.bat file creates a temporary directory where the .dat file is written, and then removes the temporary directory after the .dat file is copied to the Program Files location. Because the backup.bat file looks for the .dat file in this temporary directory and it is impossible to share out this temporary

directory because it does not always exist, an additional permanent directory can be created and shared. The SQL script can be modified by adding an additional line to the backup.bat file to copy the .dat file from this shared directory to the HP Web Jetadmin temporary directory. Now the backup.bat script is never disrupted and can continue from that point.

CLONE OR MIGRATE HP WEB JETADMIN

There might be cases when an administrator wants to make a duplicate copy of an existing HP Web Jetadmin installation. The following are some of the reasons for making a duplicate copy of HP Web Jetadmin:

- A new or beta version of HP Web Jetadmin requires testing, and it would be ideal to test on a separate machine without interfering with the production installation. Proper testing involves using the same groups, alerts, and so on as the production HP Web Jetadmin installation.
- Many individuals simultaneously access HP Web Jetadmin. Multiple installations of HP Web Jetadmin improve performance. Duplicate settings and lists of devices across all installations are easiest to manage.
- If there is a failure on a production HP Web Jetadmin installation that takes it out of service, a duplicate backup installation assumes the duties of the installation presenting the failure (redundancy).
- It is necessary to migrate from a 32-bit operating system to a 64-bit operating system.

Cloning procedure

Cloning is not a designed feature or function of HP Web Jetadmin. There might be cases where not everything can be cloned. Limitations of cloning are explained in the next section. These instructions are provided **only as an example** of how to create a duplicate copy (or clone) of HP Web Jetadmin.

Method 1 for cloning

One technique for cloning an HP Web Jetadmin installation involves restoring an HP Web Jetadmin backup that was created by using the script described in [Run the backup script](#) on a different machine than the machine where the backup was performed. This is the most complete cloning technique because it clones the database that contains the device settings and the Settings directory that contains the archived reports, firmware repository, archived data exports, file repositories, and so on. Make sure that the new HP Web Jetadmin installation (clone) runs on the same drive letter and the same directory on that drive letter as the original installation. The drive letters **must** match because there are many references in the files that are copied to the new machine that point to the drive letter that is used on the old machine.

1. Back up the original HP Web Jetadmin installation by using the procedure in [Run the backup script](#).
2. On the original HP Web Jetadmin installation, export all of the templates. In the **Device Management** navigation pane, expand **Configuration**, right-click **Templates**, and then select **Export configuration templates**. In the **Export Templates** wizard, select all of the templates, click the **Next** button, and then complete the wizard.

Note This step is required if there are templates that contain passwords

3. On the original HP Web Jetadmin installation, export the XTP tickets. In the **Device Management** navigation pane, expand **Configuration**, click **XML Ticket Repository**, select all XTP tickets, select **Export**, type in a password, click **OK**, type in a filename, and then click **Save**.

Note XTP tickets are only present if this has been licensed. The export option for XTP tickets is available in HP Web Jetadmin 10.4 SR2 and later.

4. If a true clone is required, install a fresh copy of HP Web Jetadmin on the new machine (clone) that is **the same release** as is installed on the original machine.

Note The new copy of HP Web Jetadmin can be installed on a 64-bit version machine while the original copy of HP Web Jetadmin is installed on a 32-bit version machine.

If the releases on the original machine and the new machine (clone) do not match, the files in the Settings directory do not match when the backup is restored and might cause abnormalities. For example, a new setting for the files in the Settings directory that was introduced in a release that is newer than the backup is not available after the backup is restored. It is still possible to restore an old copy of an HP Web Jetadmin database on a newer installation because the database tables are updated for the new installation. To prevent a restore of the Settings directory from downgrading the settings file, remove the Settings directory from the backup before restoring the backup (C:\Program Files\HP Inc\Web Jetadmin 10\WJABackupRestore\Settings). The database tables are updated for the new services, and the Settings directory has the default values of the new installation.

5. After the fresh installation of HP Web Jetadmin on the new machine (clone) is complete, restore the original HP Web Jetadmin files and directory by using the procedure in [Run the restore script](#).
6. After restoring the database and the settings directory, the IP address of the server in the HP.Imaging.Wjp.Core.WebServer.config file must be changed because the IP address contains the IP address of the original HP Web Jetadmin server. This file can be found at:

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

Find the following code, and change the <value> entry to the IP address of the new HP Web Jetadmin server:

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

Note If this step is omitted, the original IP address is included in the alert message under Help Resources, even after subscribing to a new alert from the new HP Web Jetadmin server.

7. Import the XTP tickets that were exported in Step 3. In the **Device Management** navigation pane, expand **Configuration**, click **XML Ticket Repository**, select **Import**, browse to the file and click **Open**, type the password and click **OK**.
8. Upload the OXPd Repository items (available under **Tools > Options > Device Management > Configuration**), and HP Web Jetadmin certificate, if they were present on the original installation
9. After the restore of the original HP Web Jetadmin files and directories is complete, perform the following steps:
 - a. Launch HP Web Jetadmin, and then import the templates that were exported in step 2. In the **Device Management** navigation pane, expand **Configuration**, right-click **Templates**, and then select **Import configuration templates**. In the **Import Templates** wizard, select the **Overwrite duplicate templates** checkbox, and then complete the wizard.
 - b. Edit the templates that contain the OXPd Repository items, and select the appropriate settings.

Note If there are templates that include XTP tickets, you must import the XTP tickets into the cloned HP Web Jetadmin server with the same name (Step 7). After the XTP tickets are imported, the templates will work. If you apply an imported template without importing the corresponding XTP tickets, the **File Not Found** error message appears.

Note If there are templates that include OXPd settings, you must import the OXPd files into the cloned HP Web Jetadmin server (step 5), and then edit the templates that include the OXPd settings in the cloned HP Web Jetadmin server (step 9b).

10. Configure all of the encrypted data. The following are some examples of encrypted data:

- Global device credentials, such as the SNMP Community Name and EWS password (available under **Tools > Options > Shared > Credentials > Device**)
- HTTP proxy user and password settings

Method 2 for cloning

Another technique for cloning involves pointing an HP Web Jetadmin installation to another database or a remote database by editing the DatabaseSettings.config.xml file. For instructions on how to connect to a remote database, see the *Using Microsoft SQL Server with HP Web Jetadmin* white paper. This white paper is available from the HP Web Jetadmin [support page](#).

Cloning by pointing to another HP Web Jetadmin database maintains most of what is in HP Web Jetadmin, such as devices and templates. However, encrypted data no longer works. For more information, see [Limitations of cloning](#). In addition, when cloning by pointing to another HP Web Jetadmin database, the items that are stored in the Settings directory are not cloned. These items include archived reports, firmware repository, archived data exports, file repositories, and so on. When an installation of HP Web Jetadmin is pointed to a database, version matching occurs whereby HP Web Jetadmin updates the database tables if the database version is found to be older than the HP Web Jetadmin installation version.

Limitations of cloning

Cloning cannot duplicate every single item from the original machine. The following limitations exist with a cloned machine:

1. If alerts that involve traps were configured on the original machine, the alerts settings are copied to the new machine during cloning. However, nothing has instructed the devices to start sending traps to the new HP Web Jetadmin installation. To set the new HP Web Jetadmin installation to process the alerts, modify the entries in the trap destination lists of each device. HP Web Jetadmin provides the ability to modify the device trap destination lists in both single and multiple device configuration modes.

Note It is possible to export/import alert templates from HP Web Jetadmin 10.4 SR2 and later. Instead of modifying existing trap alerts, unsubscribe all alerts on the original HP Web Jetadmin server and apply the alert subscription templates to the correct devices on the new/cloned HP Web Jetadmin server.

2. Reports that display information pertaining to which user printed documents are not processed for the same reason as the alerts issue. **By User** reports rely on devices sending traps after each print job. Because HP Web Jetadmin now runs on a new machine, new entries must be made in the trap tables of all the devices to send traps to the new machine. HP recommends that you resubscribe to the **By User** collections on the new HP Web Jetadmin machine to ensure that the entries are written to the trap tables.
3. When restoring the settings and database information to the HP Web Jetadmin host, encrypted data no longer functions if the host or Windows OS instance is different from the host or Windows OS instance that was used to process the original file-set. In these cases, the encrypted data can be restored manually by using the HP Web Jetadmin User Interface. The following are some examples of encrypted data:
 - Global device credentials, such as the SNMP Community Name and EWS password (available under **Tools > Options > Shared > Credentials > Device**)

- HTTP proxy user and password settings
- XTP tickets
- OXPd Repository items (available under **Tools > Options > Device Management > Configuration**)
- Templates that contain encrypted data

Device passwords and configuration templates that contain passwords are encrypted to secure any passwords that might be stored. To unlock the encryption, a key that is applicable only on the machine where it was created must be used. Passwords are too important to not be protected as securely as possible. Therefore, items that pertain to passwords in configuration file templates are present in the HP Web Jetadmin database, but can no longer be decrypted and are unusable after the clone operation. For templates that contain passwords and security settings, all of the passwords and security settings, such as the SNMP Set Community Name, are removed from the template. All of the other settings, such as the system location, remain the same. These templates must be edited or re-created on the new HP Web Jetadmin installation.

Workaround: It is possible to export templates that contain passwords by using HP Web Jetadmin. For instructions, see steps 2 and 5 in [Method 1 for cloning](#).

- If discoveries have been scheduled on the machine that is being cloned, those same discoveries occur on the new HP Web Jetadmin installation at the exact same time. These duplicate discoveries result in twice the network traffic. It might be more beneficial to synchronize the cache on the new installation with the previous installation. For more information, see [Data synchronization](#).
- If reports were run on the machine that is being cloned, data collections are scheduled to occur at a particular time and frequency. Cloning causes duplicate collections to occur on the same devices and increases network traffic.

DATA SYNCHRONIZATION

Multiple installations of HP Web Jetadmin can share their device information with each other to eliminate unnecessary network traffic and improve the redundancy of device information in each installation. This synchronization feature also helps to ensure an accurate central repository of devices on a single HP Web Jetadmin instance with the flexibility of having the satellite installations perform local discoveries and report the device information back to the master HP Web Jetadmin installation. This synchronization feature is not a full cloning of one HP Web Jetadmin installation to another. Rather, this synchronization feature merely shares the list of discovered devices from one installation with another.

To initiate data synchronization for multiple HP Web Jetadmin installations, go to **Tools > Data Synchronization**. The **Data Synchronization** window lists all of the discovered HP Web Jetadmin servers on the network that are available for synchronization. If this list is empty, go to the **Application Management** navigation pane, expand **HP Web Jetadmin Management**, select **HP Web Jetadmin Installations**, and then click **Discover**. WS discovery is the most reliable discovery method. Only similar versions can be synchronized. Values of the user-defined fields can only be synchronized if the user-defined fields have been exported from Server A and imported on Server B before data synchronization. For more information, see [Exporting/importing user-defined settings](#).

Note If the list shows the wrong version, go to the **Application Management** navigation pane, expand **HP Web Jetadmin Management**, select **HP Web Jetadmin Installations**, and then select and delete the entry for the HP Web Jetadmin installation. Then rediscover the HP Web Jetadmin installation.

Installations must be verified before synchronization can proceed. To verify an installation, a local user must be in one of the following groups:

- The user group on the HP Web Jetadmin host, which must be associated with a data synchronization role on that host
- The user group on the HP Web Jetadmin remote Smart Client
- The admin group on the data synchronization host

After verification, the device information can be selected for synchronization.

When the synchronization process starts, a progress window appears to report the status and progress of the synchronization.

Alternate synchronization method

Another equally effective method for synchronizing devices between HP Web Jetadmin installations is to export the device list from one installation, save the **IP Address** column as a text file, and then import the text file into the second HP Web Jetadmin installation where it can be used for a Specified Address discovery. Now run a discovery on the second HP Web Jetadmin installation and enable only the Specified Address discovery method. HP Web Jetadmin communicates only with the devices that were present in the first installation and gathers pertinent details about each device to populate the new cache.

The network traffic involved is minimal and is approximately the equivalent of displaying the **Status** view for the **All Devices** list on the first installation.

EXPORT GROUPS AND CONFIGURATION TEMPLATES

Another method for sharing information between two installations of HP Web Jetadmin besides cloning is to export and import groups and configuration templates. A great deal of time might have been expended in creating groups of devices or configuration templates in HP Web Jetadmin. If it becomes necessary to duplicate that effort on a different HP Web Jetadmin installation, groups and configuration templates can be exported from the original installation and imported into another installation. This technique eliminates the need to re-create all of the groups or configuration templates. Right-clicking a group or configuration template provides options to export or import the groups or templates.

Some restrictions apply when exporting groups and configuration templates. When exporting groups, the associated policies are not exported.

Exporting/importing user-defined settings

Templates that have user-defined settings can be exported from HP Web Jetadmin 10.3 SR6 and later. To import templates that have user-defined settings on another server, use the following steps:

On the original server, export the user-defined settings:

1. Go to **Tools > Options > Device Management > Configuration > User Defined**.
2. Export the templates that have user-defined settings.

On the new server, import the user-defined settings:

1. Go to **Tools > Options > Device Management > Configuration > User Defined**.
2. Import the templates that have user-defined settings. Templates or groups are not imported if another template exists with the same name unless the **Overwrite duplicate templates** option is selected.

SUMMARY

Backing up an HP Web Jetadmin installation is always wise so that you can fully restore HP Web Jetadmin if the software is accidentally erased or damaged. A significant amount of time might have been invested in configuring the software to a desired state. Fortunately, it is a very simple process to back up an installation of HP Web Jetadmin. In addition to backups, an installation of HP Web Jetadmin can be copied (or cloned) to another machine. Cloning provides a quick and easy method for creating a duplicate installation of HP Web Jetadmin without having to perform the manual labor that is typically involved in configuring the installation as desired.

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