

VMware AirWatch Epson Printer Integration Guide

Using Epson printers with AirWatch

AirWatch v9.3

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Introduction to Epson Printers

This guide provides details on Epson printer and AirWatch integration. The Epson Printer Server for Airwatch is an application developed on Ubuntu or Linux using the Mono framework and GTK# or GTK+. Using AirWatch. You can manage Epson printers and control its working from the AirWatch Console by configuring and deploying the following printer profiles.

- Wi-Fi
- Credentials
- Device Settings
- Custom Settings
- Simple Certificate Enrollment Protocol (SCEP)

Note: This guide assumes that you have the correct Epson software installed, and the necessary software to configure your printers. If you need more information or guidance on how to install this software, then please contact your Epson representative.

Supported Devices

AirWatch supports the following Epson printer models:

- TM-T88V-i
- TM-T88VI and TM-T88VI-iHub. These models do not support SCEP.

Note: With AirWatch v9.3, you can remove the requirement for printers to be whitelisted before enrolling. This option is not turned on by default, but if you would like this option turned on for your environment, please call AirWatch Support or submit a Support Request.

Prerequisites to configure the Print Server

The following programs must be installed before running the Epson printer application:

- Mono Runtime Common 4.2.1 - If Ubuntu is used, the minimum required version is Ubuntu 16.04.
- GTK# version 2 - If Ubuntu is used, install the *gtk-sharp2* package.



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Overview

This section explains how to install, configure, and register the print server with AirWatch.

Installing the Print Server

The Epson printer application consists of three files:

- **EpsonAWPrintServer.exe** - The Epson printer server application .exe file
- **EpsonAWPrinterServerData.xml** - Application settings
- **Newtonsoft.Json.dll** - A library to handle JSON data

To install the print server, copy the above mentioned files to a folder. To start the application, double-click the **EpsonAWPrintServer.exe** file or in a terminal cd to that folder and run `./EpsonAWPrintServer.exe`. Alternatively, enter `mono EpsonAWPrintServer.exe` to start explicitly with the mono runtime.

Once you start the Epson printer server application, the **EPSON AirWatch Print Server** window opens. In this window, you have to provide the print server information.

Adding the Print Server

To add a printer server in AirWatch, perform the following steps:

1. Login to the AirWatch Console.
2. Ensure that the correct Organization Group is displayed at the top of the page.
3. Navigate to **Devices > Peripherals > Settings > Server**, and then select **Add Server**.
4. On the **Add Server** page, complete the following fields:

Fields	Description
Friendly Name	Choose a meaningful name to identify the Epson print server.
HMAC Token	The AirWatch Console randomly generates this token. This token enables all subsequent requests from the Epson print server to be HMAC signed. Select the entire 32-character string and copy it to the clipboard (Ctrl+C).
User ID	This field contains the user ID or username associated with a print server on the console. Printers subsequently enrolled to the print server have this username associated with them.
Service UID	Enter the Service UID or select Generate UID . The service UID is expected to be between 16 to 36 character long alphanumeric value. Once you enter the Service UID in the AirWatch Console, copy the same to the relevant field in the Epson configuration page .

5. Select **Save**. The status displays *pending registration*.

Registering the Print Server

To register the printer, perform the following steps:

1. Update the **EpsonAWPrinterServerConfig.xml** with your print server details and save the file.
2. Open **Terminal** and change to the directory containing Epson print server files.
3. Run the **mono EpsonAWPrintServer.exe -r** command to start the print server.
Your print server is registered and the terminal output displays following information about the printer server:

```
EPSON Airwatch Print Server Version: X.X.X.XXXXX
-----
Parameters:
Server UID=a1234b5c-1ab2-1234-a123-12a3b1234a12 GroupID=1234 Vendor=Epson
HMAC=12a1ab1a-1a23-123a-ab12-1234ab1234a1b
RegisterURL=https://www.acme.com/deviceservices/peripheralservice/v1/register
ServerIPAddressFromAirwatch=xx.xx.xxx.xx
UseHTTPS(from Airwatch)=True
HTTPPrefixToPrinter=https://
Periodic Check-ins=False
CheckInPeriod=0.5
SendAlertsToAirWatch=True
SendCheckInOnStatusUpdate=True
SSLPort=xxxx
SSLCertificateFileName=xxxxx.xx
-----
System Info:
Thread pool size: xx
No. of Worker threads: x
No. of async. I/O threads: x
-----
UNIX Signal listner started.
Registering Printer Server with Airwatch...
Send registration to Airwatch...
Registration OK.
Recieved URLs:
EnrollmentURL=https://www.acme.com/deviceservices/peripheralservice/v1/enrollde
vice
CommandURL=https://www.acme.com/deviceservices/peripheralservice/v1/checkin
AlertURL=https://www.acme.com/deviceservices/peripheralservice/v1/alert
-----
Webserver: SSL certificate is valid. Issued for XXXX by XXXX, expires of xx-xx-
xxxx
Webserver: Listening on port xxxx
```

Enrolling the Printer

1. Go to the printer admin page.
2. Select **Edit Status Notification** settings and select **Apply**.
3. Select **Enable** to enable status notification.
4. Select **ID** text field and enter **Printer ID**.
The Password field should be left blank.
5. Select **URL** text field and enter printer server URL.
6. Select **Interval(s)** text field and enter the notification interval in minutes.
7. Select **Disable** to disable server authentication.
8. Select **Apply**.

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Overview

This section provides information on the following:

- Creating printer profiles
- Viewing device details functions
- Printer alerts
- Uploading printer firmware image


Creating Printer Profiles

You must create a printer profile containing the printer attributes and settings. Multiple profiles can be created as required. To create a printer profile, perform the following steps:

1. Open and log into the AirWatch Console.
2. Navigate to **Devices > Peripherals > Settings > Profiles**.
3. From the **Printer Profiles** page, select **Add Profile** to add a new printer profile.
4. Select **Epson** as the printer brand for which to add a profile. You are redirected to the **General** tab of the **Add Profile** page.
5. In the **Add profile** page, enter the **Name** and **Description** of the printer profile.
6. In the **Assignment Type** drop-down menu, select either of the following profile types:
 - **Auto** – The profile is pushed automatically to the printers within the assigned smart groups. For more information on smart groups, please refer to the **AirWatch Mobile Device Management Guide** available on [AirWatch Resources](#).
 - **Optional** – You must manually push the profile.
7. The relevant payloads appear on the left side of the screen. You may need to consult the printer manual to complete some of the fields.
8. Select **Save & Publish** after you complete the required payload settings.

Deploy Profiles

Perform the following steps to manually push the profile:

1. Navigate to **Devices > Peripherals > Settings > Profiles**.
2. Select the  icon next to the profile that you want to manually push.
3. In the **View Devices** page, select **Install Profile** to push the profile to the required printer.

Until AirWatch receives acknowledgment from the print server that a print profile has been installed for a particular printer ID, the profile remains in the *Pending Install* state for that device. Once AirWatch receives the acknowledgment for a particular printer, the status changes to *Installed* for the particular printer and then a green check mark appears.

Epson SCEP Profile

Configure the Simple Certificate Enrollment Protocol (SCEP) in AirWatch Console to permit your Epson printers to communicate with your SCEP servers over Wireless LAN (WLAN). This helps you to validate and manage your SCEP certificates remotely at defined intervals.

Prerequisites

- Certificate Authority and the corresponding request template. For more information about creating a Certificate Authority, see *VMware AirWatch Certificate Authentication for EAS with NDES-M SCEP guide*.
- Enable *Create the self-signed certificate* at Epson printer settings webpage.

To configure SCEP:

1. Navigate to **Peripherals > Settings > Profiles > Epson > SCEP** and select **Configure**.
2. From the Credential Source drop-down menu, select **Defined Certificate Authority**.
3. From Certificate Authority drop-down menu, select the appropriate Certificate Authority. The corresponding Certificate Template is automatically selected.
4. Select the Update Interval value text-box and enter the desired value. The value is represented in milliseconds.

Verify SCEP Profile

To verify the SCEP profile status:

- Navigate to **Printer Server Terminal**. SCEP profile installation details are displayed in the terminal window.
- The printer generates a confirmation output. You can connect to a wireless network to test the connectivity.
- Navigate to **https://< printer IPaddress>/webconfig/config_scep_init.cgi** and verify the SCEP certificates on the printer.
- On the printer webpage and navigate to **System Settings > Network > Wireless > WPA/WPA2 Enterprise Authentication**

Viewing Device Details Functions and Epson Printer Alerts

Device details functions and printer alerts can be viewed by performing the steps below.

Device Details Functions

The Printers List View of the AirWatch Console allows you to monitor and manage all enrolled Epson printers.

1. Navigate to **Devices > Peripherals > List View** to display the dashboard.
2. Select the **Friendly Name** of the required printer.
3. In the **Details View** page, select **More**, located on the top left side of the page to see a list of available actions and perform the desired action. The actions that are present is mentioned in the following table:

A ctions	Description
Q u e r y A l l	Retrieves all updated device details of a printer and displays it on the AirWatch Console.
S o f t R e s e t	Restarts the printer.
F a c t o r y R e s e t	Resets the printer to factory settings.
C h a n g e O r g a n i z a t i o n G r o u p	Changes the currently-assigned organization group of the printer.
Delete printer	Deletes the printer from AirWatch. Using Epson software as the intermediary, AirWatch sends the delete command is sent to the print server, which in turn removes the printer from its database and conveys the status to the AirWatch Console.
T e s t P r i n t	Ensures that the printer is working correctly.

Epson Printer Alerts

To view alerts, navigate to **Devices > Peripherals > Alerts**. The **Alerts** view displays every alert and alert status sent from the Epson printer to AirWatch as well as the status of the alert.

To understand how alerts generated on the printer, manifest themselves on the AirWatch Console, perform the following steps:


1. Navigate to **Devices > Peripherals > List View**.
2. Select the **Friendly Name** of printer you want to test from the list.
3. In the **Details View** page, select **Alerts**. A list of possible alert types gets displayed with the current status of each alert for that printer.
4. Turn on the printer and open the media door on the printer.
5. Press the F5 key after 10 secs to refresh the AirWatch Console.
6. In the **Alert Type** column, you should now see the *Head Open* alert with an orange triangle with an exclamation mark in the **Status** column of that printer.
7. Close the media door.
8. Press the F5 key after 10 secs to refresh the console.
9. After the screen refreshes, you can see the *Head Open* alert. A blue circle check mark replaces the orange triangle with an exclamation mark. This shows that there is no longer an alert for that function. If this test is successful, you have verified that the printer is able to send alerts to the AirWatch Console.

Serial No.	Alert Type	Description	Severity
1	Power On	Printer is powered on	1
2	Power Off	Printer is powered off	1
3	Cover Open	Printer cover open	1
4	Print Ready	Printer is ready	1
5	Less Receipt Paper	Receipt paper is less	1
6	Receipt Paper Out	Receipt paper is out	1
7	Slip in Printer	Slip in Printer	1
8	Error	Error	1
9	Auto-Cutter Error	Auto-cutter error present	1
10	Fatal Error	Fatal error present	1
11	Recovering Error	Recovering error is present	1
12	Printer Offline	Printer is offline	1
13	Printer Status Unavailable	Status of the printer is unavailable	1
14	Undefined Status Reply	Status reply is undefined	1

Configure Sample Schedule


You can configure sample schedule in the AirWatch Console to permit the printers to perform automated check-ins to AirWatch at scheduled intervals. The automated check-ins help AirWatch to manage printers effectively by getting the printer status at regular intervals. Sample Schedule is configured at Organization Group level. Increasing the check-in frequency can impact performance. You can test different schedules to understand the check-in frequency that is suitable for your environment. This helps you to configure sample schedule without impacting performance.

To configure sample schedule:

1. Log in to the AirWatch Console and navigate to **Settings > Devices & Users > Printers/ Peripherals > Sample Schedule**.
2. In the Device Details Sample, select the value text box and enter a desired numerical value. You can also select  to increase or decrease the entered value.
3. Select the type drop-down menu and then select **minutes**, **hours**, or **days**. The option you select applies to the numerical value entered in the value text box. Sample schedule runs at the interval you set.
4. Select the Child Permission option as per your requirement and select **Save**.

Uploading a Printer File or Firmware Package

Perform the following to upload an Epson printer file:

1. Navigate to **Devices > Peripherals > Settings > Files** in the AirWatch Console and then select **Add New File**.
2. Select **Epson**.
3. On the **Add New File** page, fill all the required fields.
4. Enter a name in the **Name** field. This name is not necessarily the name of the file being uploaded, but rather name of the printer file profile that can be assigned selectively.
5. Fill in a meaningful description of the printer file profile.
6. Under **Assignment Type**, select **Auto** or **Optional**.
7. Select any desired assigned smart groups. Smart groups should be created beforehand.
8. Select **File** in the left column, and then select **Configure**.
9. Select **Upload** to choose the file package that you want to include in the printer file profile.
10. Enter the **File Version** that you want to display in the AirWatch Console.
11. Select **Save** to save the file, or **Save and Publish** to deploy the file. The page shows a list of the printers installed in the selected Smart Groups that receives the new files with status as *Added*.
12. Select **Publish** to finalize the changes. If necessary, republish any required profile.
13. If a printer file that you want to install is labeled as **Optional**, then select the  icon.
14. Select the arrow down circle button to install the files.

15. To verify the upload, go to the printer server terminal or the print server log files. The print server terminal displays the following output:

```
Printer EpsonXX: AW Sent Installfile command. Filename: ' SampleFile1.txt'
PrintServerFile SampleFile1.txt: Receiving file from AirWatch...
PrintServerFile SampleFile1.txt: Receiving file from AirWatch successfully
complete. Bytes downloaded: xxxx
PrintServerFile SampleFile1.txt: Loading file from disk...
PrintServerFile SampleFile1.txt: Loading image to printer
PrintServerFile SampleFile1.txt: Sending to printer
PrintServerFile SampleFile1.txt: AW responded with ' OK'
PrintServerFile SampleFile1.txt: File ' SampleFile.txt'  successfully loaded to
printer
PrintServerFile SampleFile1.txt: Checking in...
PrintServerFile SampleFile1.txt: AW responded with ' OK'
PrintServerFile SampleFile1.txt: Checking in done. AW Response: Response Status:
OK
```

Chapter 4 : Trou bleshooting

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Overview

This section provides details of various troubleshooting procedures that needs to be carried out if required. This section includes details of various HTTP status codes that are involved.

HTTP Status Codes

Status Code	Cause
200 Ok	Indicates that the HTTP GET or HTTP POST command was successful.
401 Unauthorized	Indicates that the printer either needs to authenticate with the server or that it failed to authenticate with the remote server.
403 Forbidden	Indicates that the authentication was provided and valid; however, the user does not have access to the requested resource.
404 Not Found	Indicates that the remote URL provided points to an invalid location on the server.
500 Internal Server Error	Indicates that the server encountered an unexpected condition that prevented it from fulfilling the request.

Accessing Other Documents

While reading this documentation you may encounter references to documents that are not included here.

The quickest and easiest way to find a particular document is to navigate to https://my.air-watch.com/help/9.2/en/Content/Release_Notes/Doc_List_PDFs.htm and search for the document you need. Each release-specific document has a link to its PDF copy on AirWatch Resources.

Alternatively, you can navigate to AirWatch Resources on myAirWatch (resources.air-watch.com) and search. When searching for documentation on Resources, be sure to select your AirWatch version. You can use the filters to sort by PDF file type and AirWatch v9.3.