Toshiba Printer Management

VMware Workspace ONE UEM 1903

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Contents

Toshiba Printer Integration

1

Overview

Toshiba manufactures rugged and portable thermal printers designed to function in the toughest of environments. The Toshiba printers have LCD screen interface and can connect to networks. Toshiba Connector is a print server that communicates with the Workspace ONE UEM server and Toshiba printers. Following are the features of Connector:

- Connector receives the published printer profiles from the Workspace ONE UEM console and sends it to the printers, so that the appropriate values get set.

- Connector reports printer alerts to Workspace ONE UEM server for display on the UEM console.

- Connector receives the published printer files from UEM console and updates the printer software.

This guide helps you to understand the supported Toshiba printer and print server installation and functionality.

This chapter includes the following topics:

- Requirements
- Supported Devices

Requirements

Following system and environmental requirements are required for Connector to operate:

- Software (Operation System)
  - Windows Server 2008 R2 (64-bit)
  - Windows 2012
- Interface to the printers
- Connections to the printers are made through wireless LAN. Whether wired LAN or wireless LAN is used, it is possible to collectively send files to multiple printers connected to the network.

Note Before executing any process, confirm no other tools have access to the printer. If unrelated data is sent to the printer during any process execution, an error may occur.

Supported Devices

Following are the supported Toshiba printer models:

- B-EP4DL-GH40-QM-R

- B-EP2DL-GH40-QM-R

- B-FP3D-GH40-QM-R

Print Server Installation

<div style="text-align: right; font-size: 3em;">2</div>

Overview

This section explains how to install and configure print server.

Prerequisites

Print server installation requires:

- IIS, ASP.NET, and .NET Framework 4

- CSR (Certificate Signing Request)

- SSL certificate and SSL connection

- Workspace ONE UEM console version 7.3 or later

- TOSHIBA AirWatch Connector Installer executable file (.msi) downloaded and saved to the computer that you want to use as the print server.

This chapter includes the following topics:

- Create CSR

- Obtain SSL Certificate

- Install SSL Certificate

- Enable SSL Connection

- Install Workspace ONE UEM Server on the Print Server

- Install Workspace ONE UEM Server

Create CSR

This section describes the procedure to create CSR (Certificate Signing Request) in the print server.
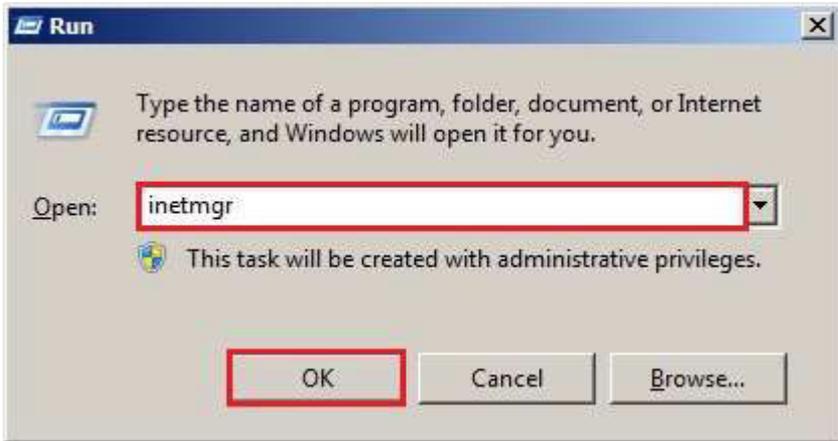
Procedure

1   Select **Start**, and click **Run…**, the **RUN** prompt appears.

2   Type inetmgr in the **Open** field and select **OK**.

3   Select the **host name** icon on the left-hand screen. Select the **Server Certificates** icon and then select **Open Feature**.
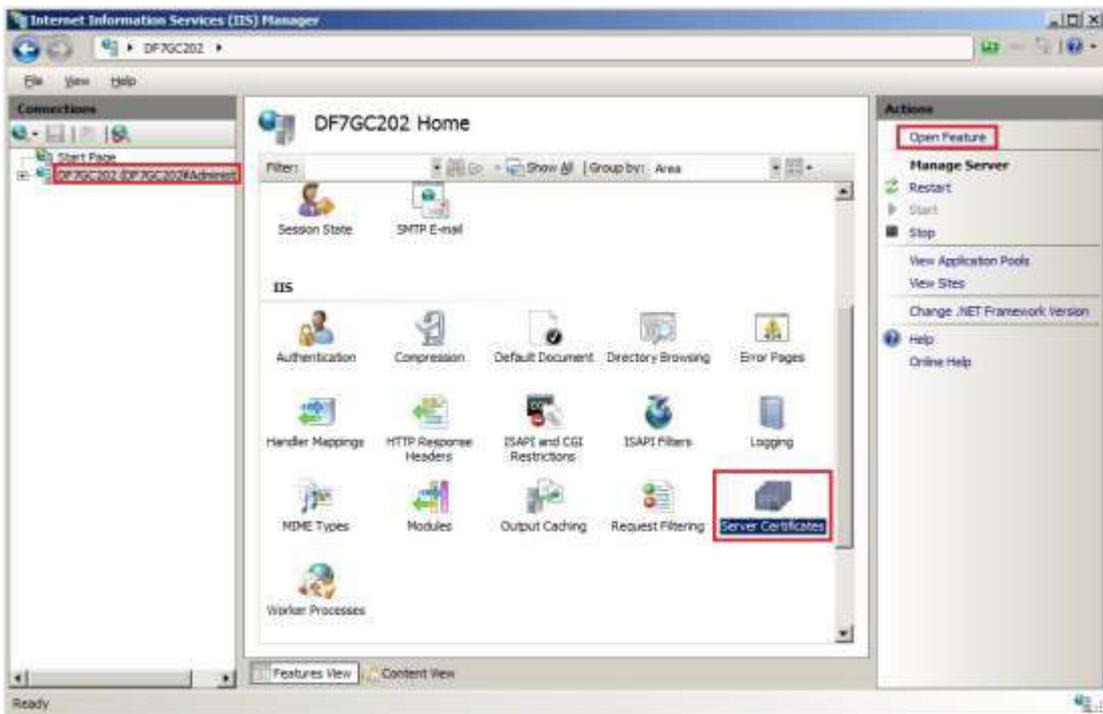
4 Select the **Create Certificate Request** option.

5 Enter the necessary details in the form and click Next.

Note Regarding the detail about the entry, please refer to your SSL certificate provider website. SSL certificate provider means provider such as Verisign, GlobalSign, and Cybertrust.

- **Common name** – Enter Host name or Global IP address of your print server.
- **Organization** – Enter your company name.
- **Organizational unit** – Enter your division name in your office.
- **City/locality** – Enter the name of city or locality in which your office is located.
- **State/province** – Enter the name of state or province in which your office is located.
- **Country/region** – Select abbreviation of country in which your office is located.

6 Select the **Bit length** drop-down menu and choose bit length as 2048 and select the button shown in the following screen.
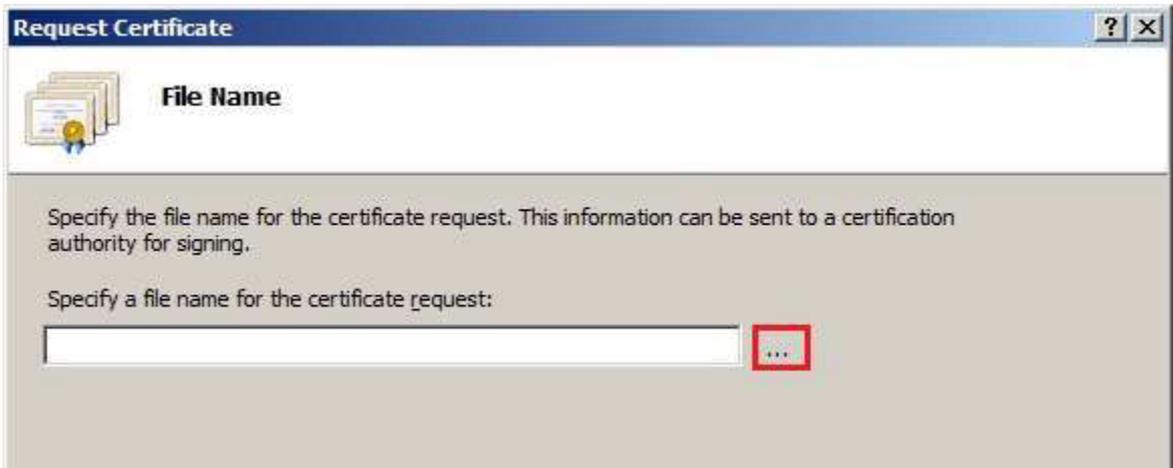
7   Choose the location to save CSR file. Provide a file name for CSR and Select **Finish**.

Obtain SSL Certificate

Submit the generated CSR to the SSL certificate provider and obtain SSL certificate. SSL certificate provider are Verisign, GlobalSign, and Cybertrust. The way to obtain SSL certificate depends on SSL certificate provider. In one case, you mayt need to open CSR file with any text editor, and copy the content and paste the designated form displayed on website of SSL certificate provider. In another case, you may need to submit CSR file to SSL certificate provider. For details, refer to the website of the SSL certificate provider.

Install SSL Certificate

This section describes the procedure to install SSL certificate on the print server.
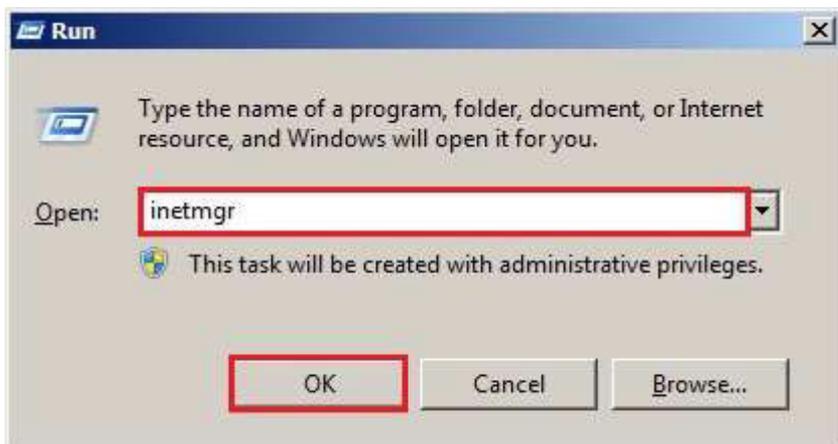
## Procedure

1   Select **Start**, and click **Run…**, the **RUN** prompt appears.


2   Type inetmgr in the **Open** field and select **OK**.

3 Select the **host name** icon on the left-hand screen. Select the **Server Certificates** icon and the select the **Open Feature** from the **Actions** panel.
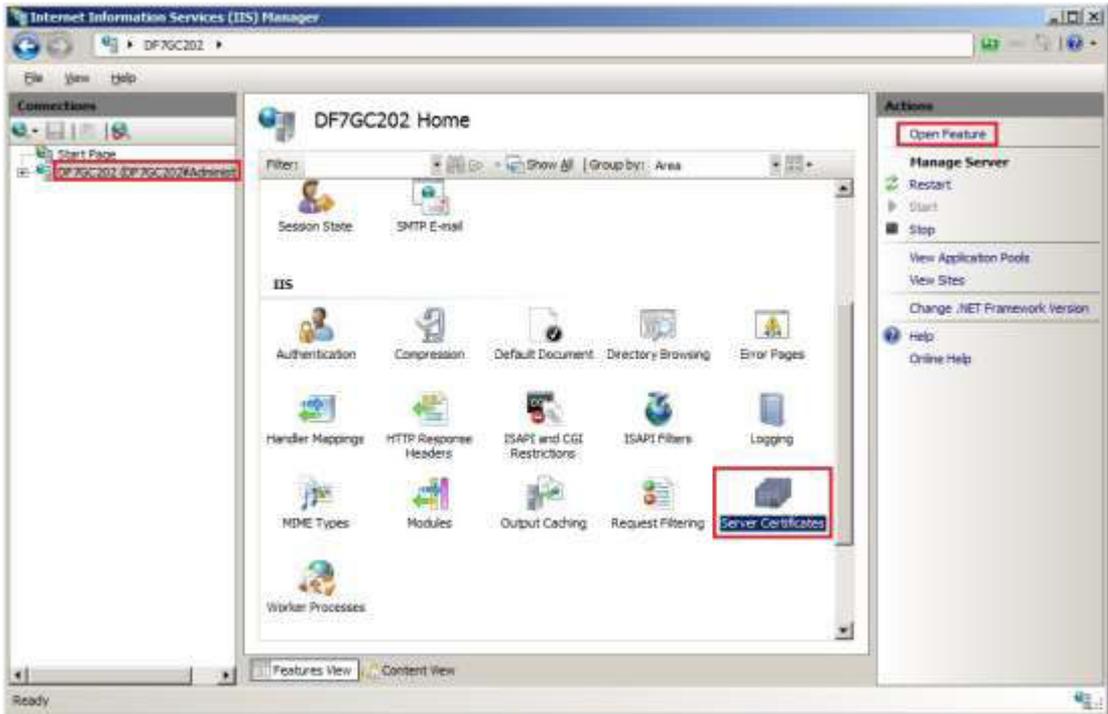

4 Select the **Complete Certificate Request...** from the **Actions** panel.
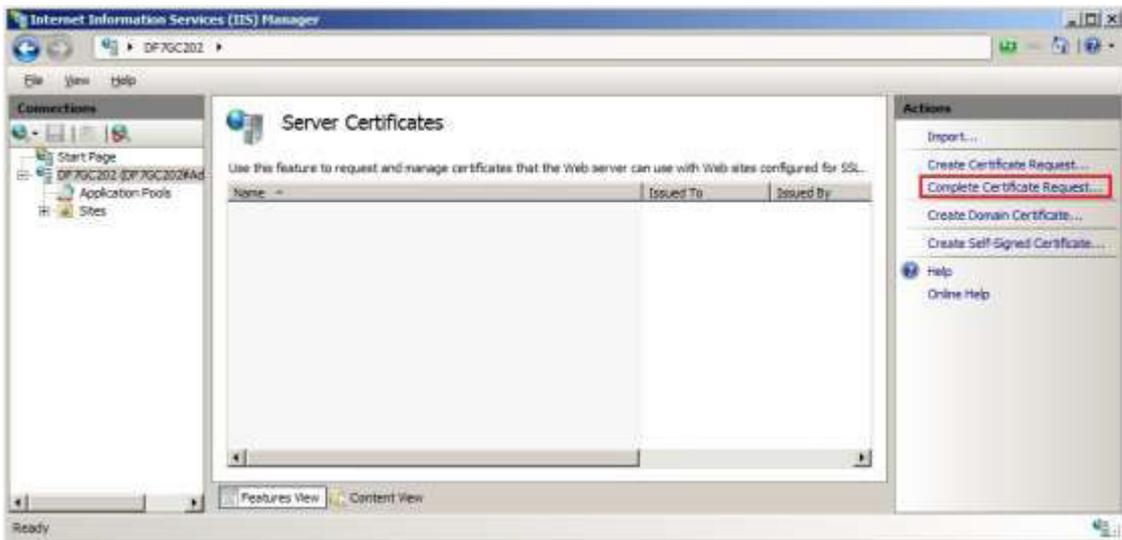
5 Select the following button.
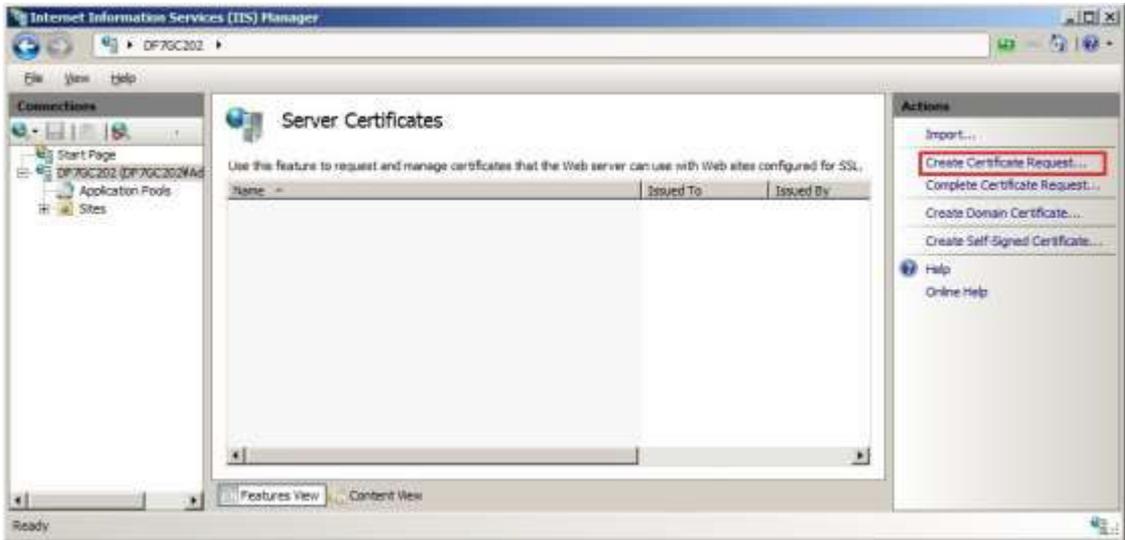
6 Enter the SSL certificate code. The following screenshot shows the sample SSL code of "201406250004931.cer". The actual SSL code that you enter comes from the file name of SSL certificate obtained in the **Obtain SSL Certificate** section. Then select the **Open** button.
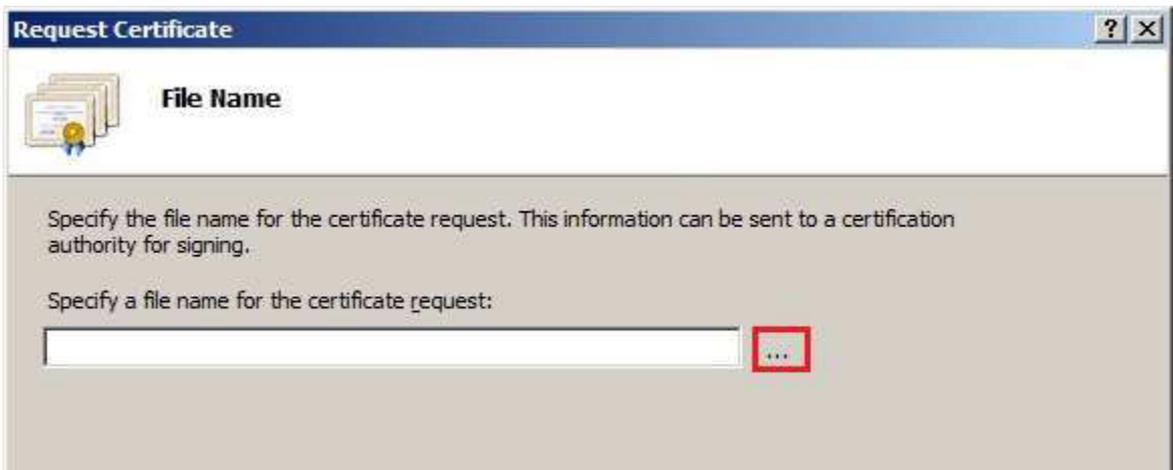
7   Enter the **Public SSL certificate** in the **Friendly name** field. Select **OK** and confirm that SSL
    certificate is installed.

Enable SSL Connection

This section describes the procedure to enable SSL connection in the print server.

Procedure

1   Select the **Default Web Site** icon and select the **Features View** icon and then select the **Bindings..**
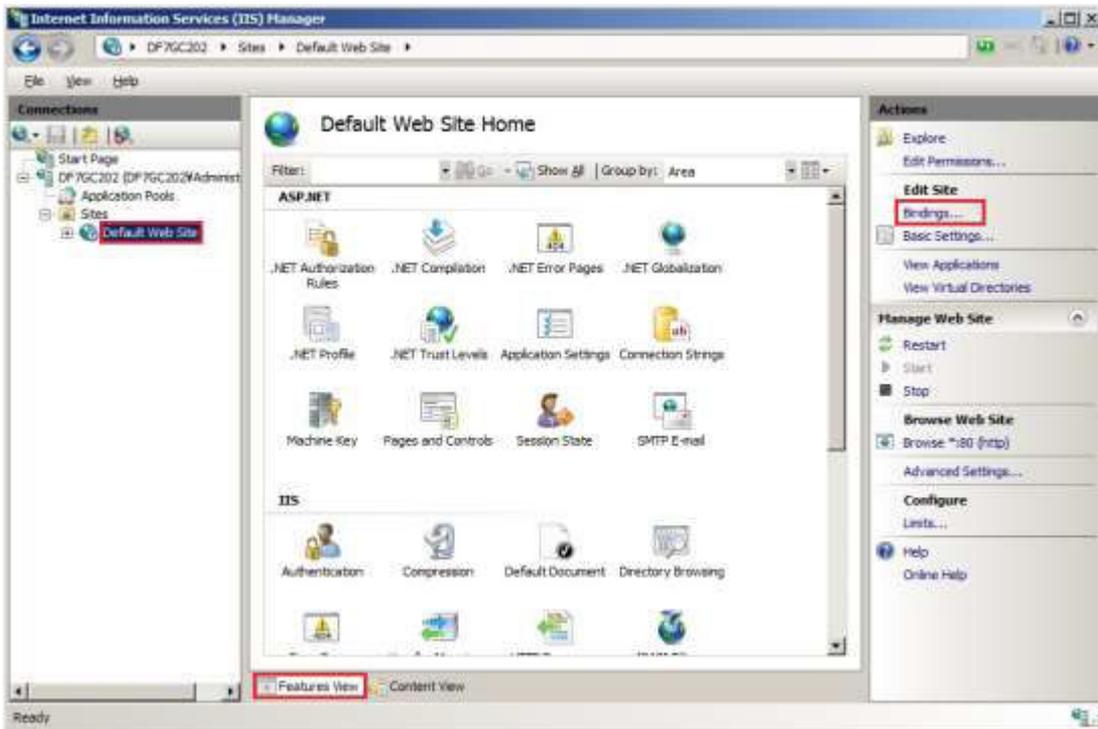
2   Select the **Add…** button.
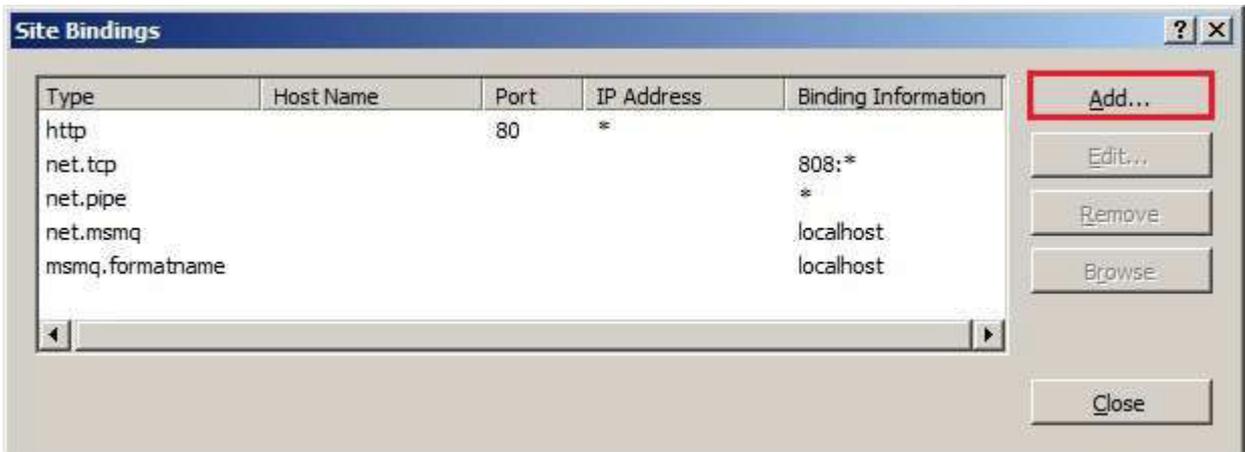
3   Select the down-arrow menu in the **Type** field. Select **https**.

4   Select the down-arrow menu in the **SSL certificate** field, and select the **Friendly Name Public SSL certificate**.
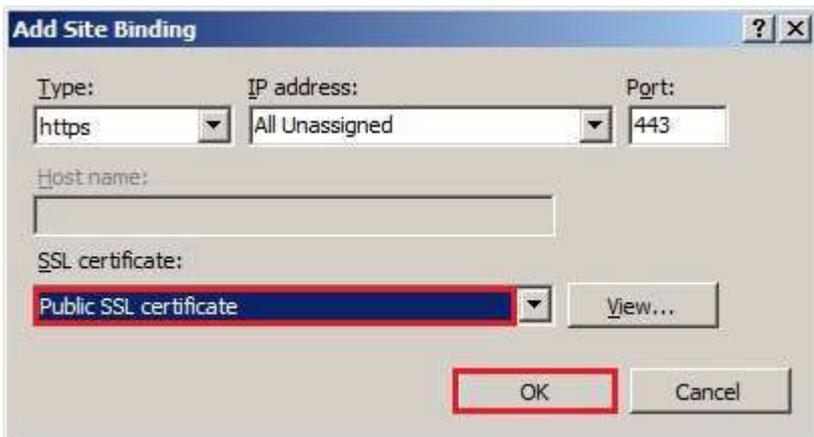
5   Confirm that **https** is newly added and then select **Close**.
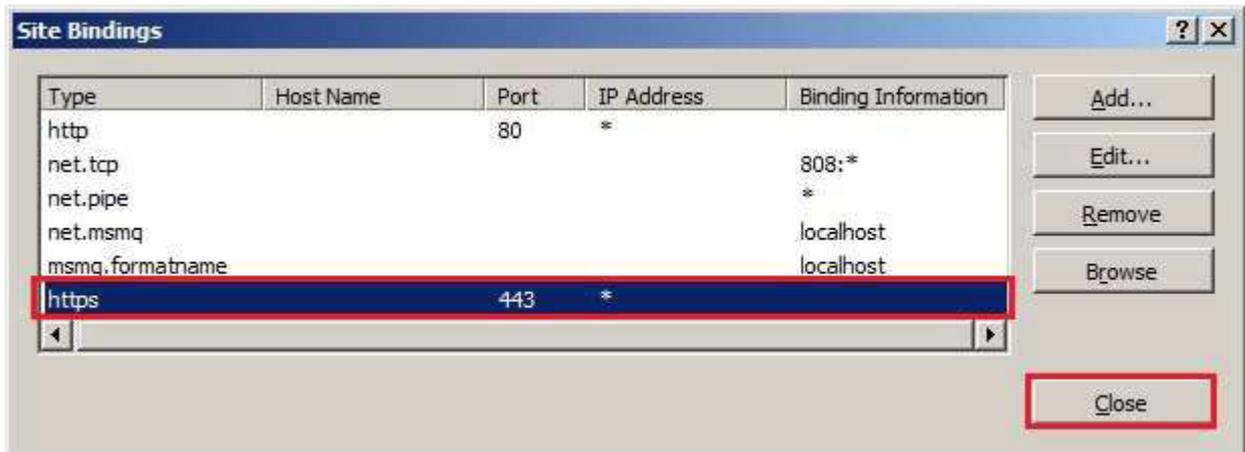
Install Workspace ONE UEM Server on the Print Server

Procedure

1   Select **Start > Run** and type services.msc in the **Open** field, and select **OK**.
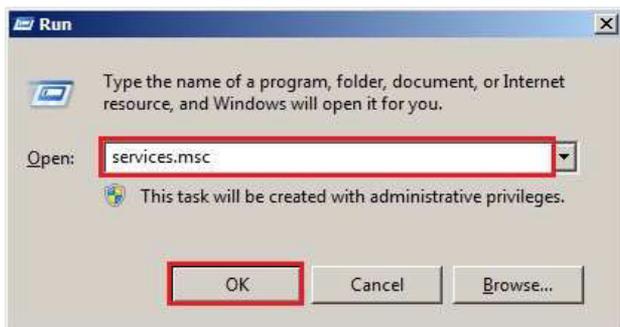
2   On the following screen, confirm the **Status** field displays **TOSHIBA AirWatch Connector**.
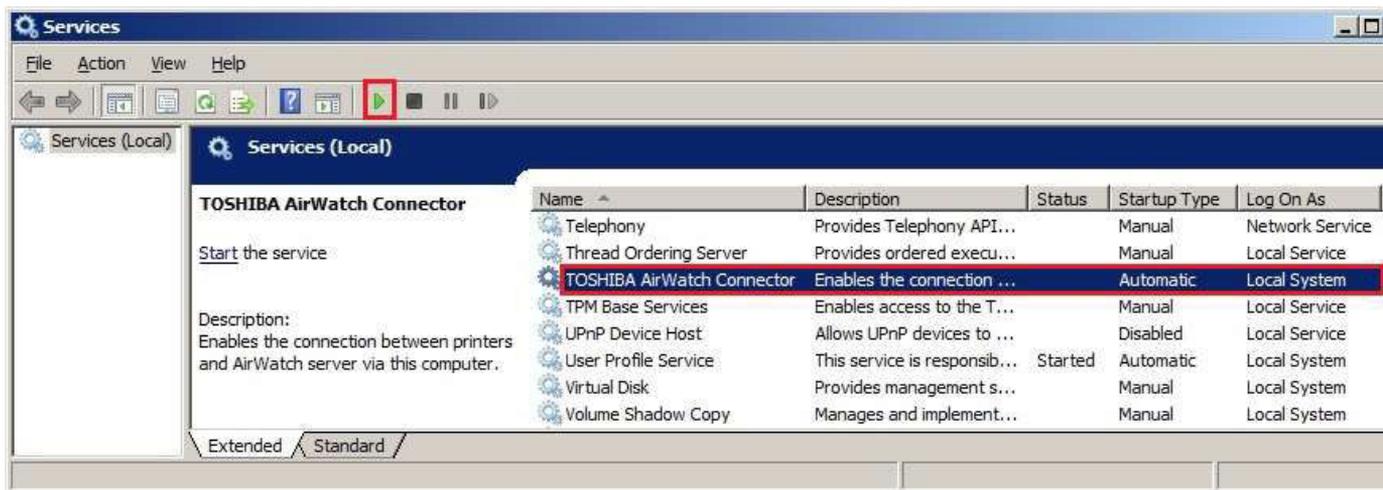
3   If **Started** is not displayed in the **Status** field, select the name **TOSHIBA AirWatch Connector**, and select the **Start** icon. Wait for about 15 seconds.

4   On the following screen, confirm that the status of TOSHIBA AirWatch Connector is **Started**.

If **Started** is displayed in the **Status** field, then the installation is successful. **Started** means that TOSHIBA AirWatch Connector has started and the connection to Workspace ONE UEM server is complete at startup.
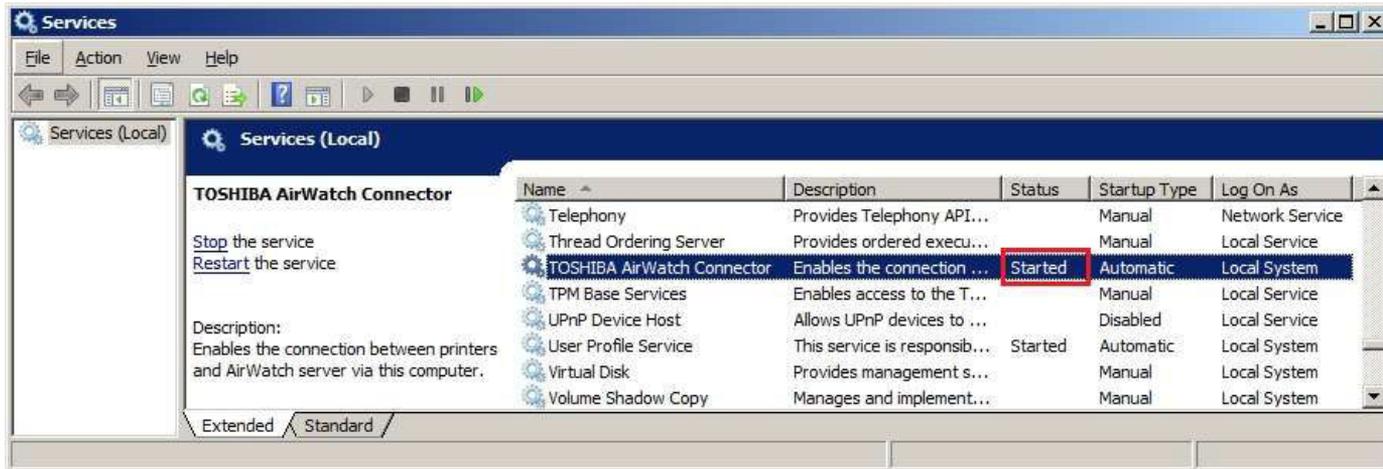
Non-display of a status means that TOSHIBA AirWatch Connector has not started and cannot connect to Workspace ONE UEM server at startup.

5   If **Started** is not displayed, uninstall TOSHIBA AirWatch Connector and try the installation again.

6   Go back to UEM console, and select **Refresh** icon to refresh UEM console information and to update the notification endpoint.

Install Workspace ONE UEM Server

This section describes the procedure to install the Print server application required to manage printers through Workspace ONE UEM.

Procedure (On the UEM console)

1   Log into the UEM console.

2   On the UEM console, navigate to **Devices > Peripherals > Settings > Server** and then select **Add Server**. The **Add Server** page appears.

3   On the **Add Server** page:

a   Enter a friendly name for the print server.

b   Note the HMAC Token (HMAC Token is automatically generated by Workspace ONE UEM).

c   Select your User id.

> **Note** Do NOT close the **Add Server** page. In subsequent step you will be populating the ServiceUID field.
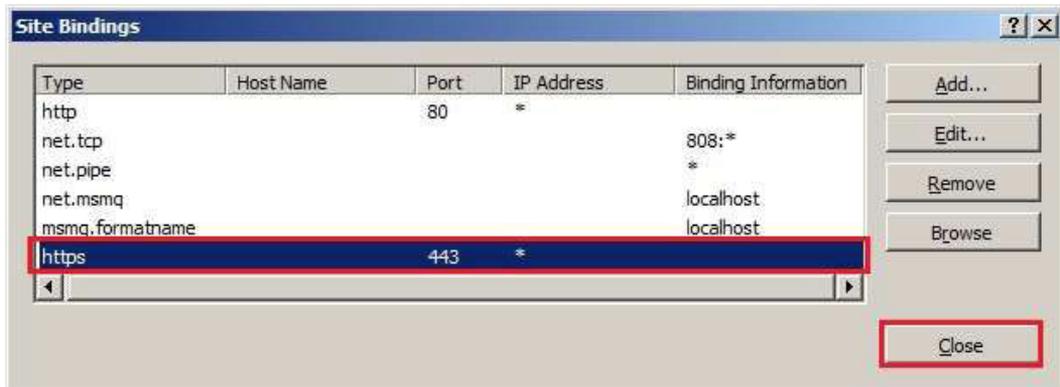
4   Locate and copy the TOSHIBA AirWatch Connector Installer file to the desktop of the print server. Double-click the icon to install.

5   On the **License Agreement** screen, select **I Agree** and then select **Next**.

6   On the **Request User Form**, enter the details and then select **Next**.

- Location of the TOSHIBA Endpoint – Change the Domain name to your server name. Example - https: //xxcompany.com/TOSHIBA_AWConn/wakeup/

- Location of the Workspace ONE UEM Endpoint – Change to the Workspace ONE UEM Device Services Endpoint URL obtained from Workspace ONE UEM. Example - https: //api.airwatchmdm.com/deviceservices/peripheralservice/v1/register

- Workspace ONE UEM Server Token – Enter the HMAC Token which you noted in step 3.
- Group ID used by UEM console – Enter the basic Group ID for your company from Workspace ONE UEM.

7   On the **Select Installation Address** screen, select **Next**.

Unless you have a specific reason, do not edit the entry TOSHIBA_AWConn in the Virtual directory field. TOSHIBA_AWConn means the first directory name of the TOSHIBA Endpoint URL. This step cannot use Back. If you need to go back, please start over by selecting **Cancel**.
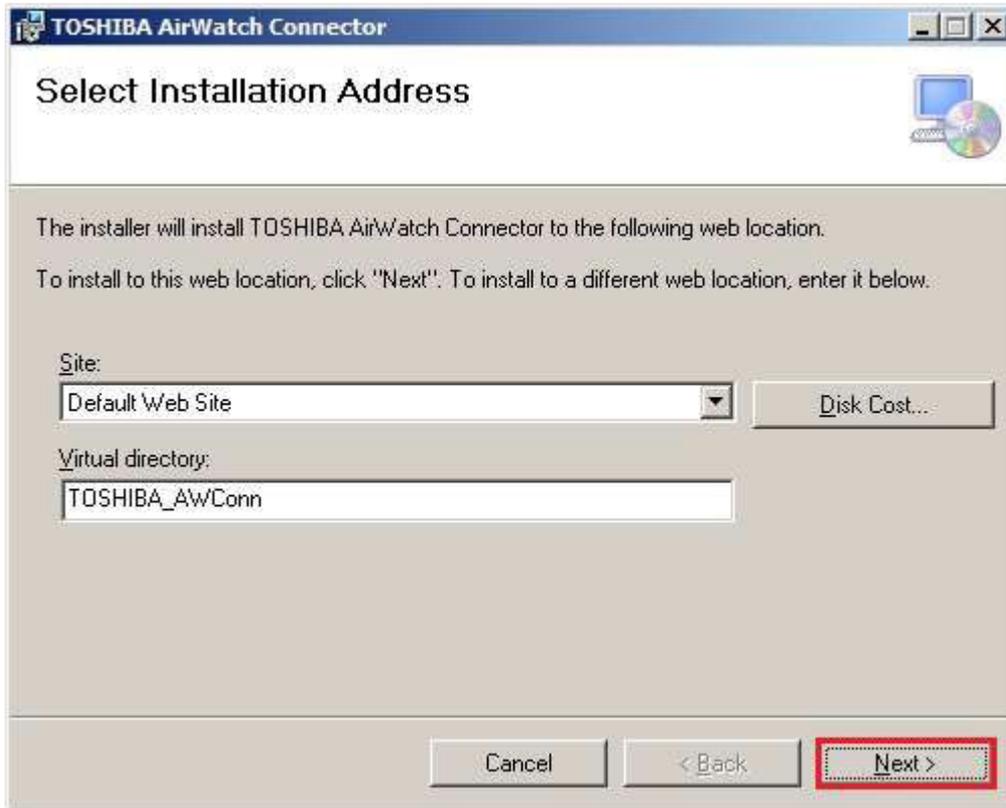
8   On the **Confirm Installation** screen, select **Next** to start the installation.

9   The **Unique ID** for the Toshiba Server Installation is displayed. Make a note of the **Unique ID** and select **OK**.

10 Switch to step 3 and enter the Unique ID in the **Service UID** field on the **Add Server** page and select **Save**.

Procedure (On the Print Server)

1   Select **Start > Run** and type services.msc in the **Open** field, and select **OK**.

2   On the following screen, confirm the **Status** field displays **TOSHIBA AirWatch Connector**.
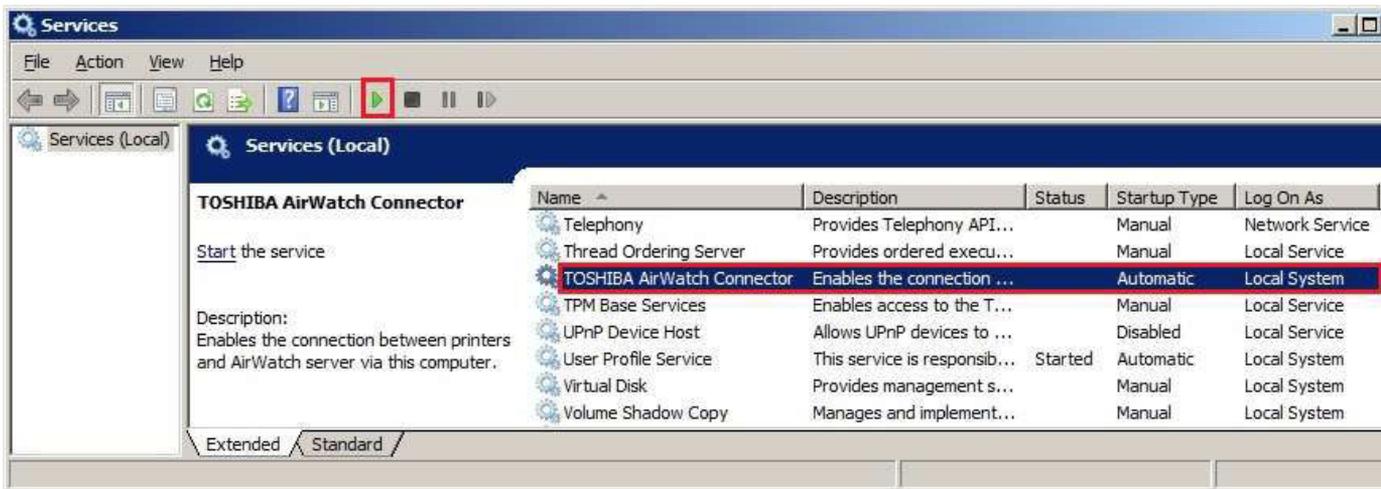
3   If **Started** is not displayed in the **Status** field, select the name **TOSHIBA AirWatch Connector**, and select the **Start** icon. Wait for about 15 seconds.

4   On the following screen, confirm that the status of TOSHIBA AirWatch Connector is **Started** and then
     if **Started** is displayed in the **Status** field, then the installation is successful.
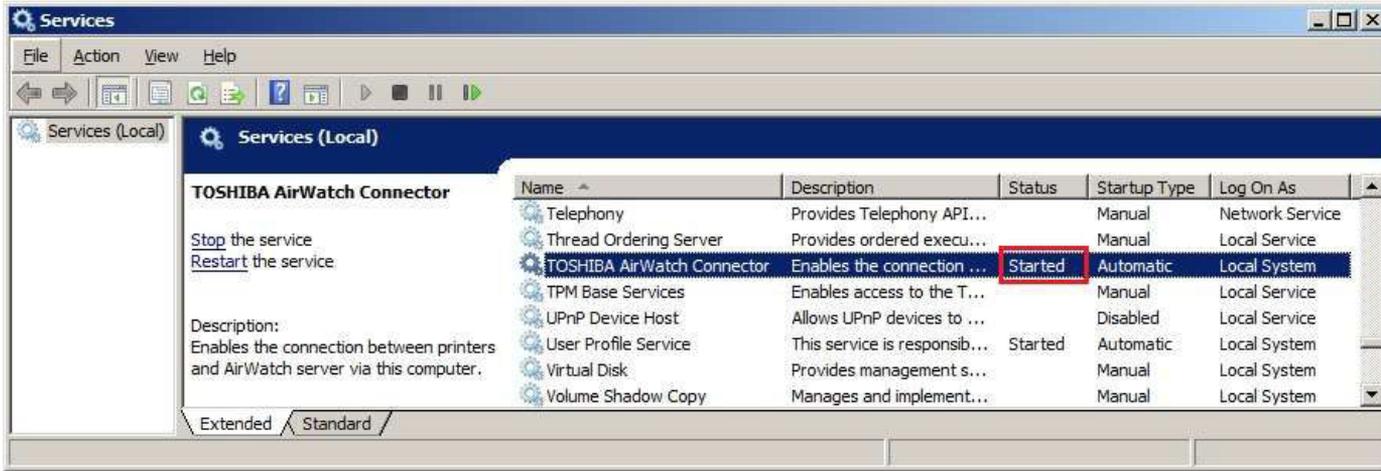
5   If **Started** is not displayed, uninstall TOSHIBA AirWatch Connector and try the installation again.

     a   Non-display of a status means that TOSHIBA AirWatch Connector has not started and cannot
          connect to Workspace ONE UEM server at startup.

     b   **Started** means that TOSHIBA AirWatch Connector has started and the connection to Workspace
          ONE UEM server is complete at startup.

6   Go back to UEM console, and select **Refresh** icon to refresh UEM console information and to update
     the notification endpoint.

Toshiba Printer Enrollment

3

Overview

This section describes the procedure to enroll Toshiba printer in the Workspace ONE UEM console and how to link printers to the Smart Groups.

Prerequisites

Before you enroll the Toshiba printer, install the following settings tool required to configure Toshiba printer:

- B-EP tool if enrolling a B-EP printer
- B-CP tool if enrolling a B-FP3D printer

This chapter includes the following topics:

- Enroll Toshiba Printer
- Enroll Toshiba Printer on the UEM Console
- Remove Enrolled Printer
- Add Printer to Smart Groups

Enroll Toshiba Printer

Procedure (On the Print Server)

1   Configure MDM settings such as IP address and port number using appropriate tool for the printer to communicate with print server.

2   Push the **POWER** button on the printer for a few seconds to start the printer.

- **Z-MODE** is displayed on LCD if the printer is a B-EP printer and **Online** in case of a B-FP3D printer.

- On receiving MDM settings, enrollment process starts displaying Installing status message on the screen.

Procedure (On the UEM console)

1   Open a web browser, and log into the UEM console.

2   Navigate to **Devices > Peripherals > List View**.

3   Select **Refresh** to refresh the UEM console information.

4   Confirm that the printer is enrolled.

Enroll Toshiba Printer on the UEM Console

Procedure

1   Open a web browser, and log into the UEM console.

2   Navigate to **Devices > Peripherals > List View**.

3   Select **Refresh** to refresh the UEM console information.

4   Confirm that the printer is enrolled.

Remove Enrolled Printer

This section describes the procedure to delete a printer that is enrolled in the UEM console.

Procedure (On the UEM console)

1   Navigate to **Devices > Peripherals > List View** and select the printer you want to delete.

2   Select the **Friendly Name** and select the **More** icon.

3   Select the **Delete Printer** icon and select **OK** to confirm deletion.

4   Navigate to **Devices > Peripherals > List View** and confirm that the printer is deleted.

Add Printer to Smart Groups

This section describes the procedure of adding a printer to a Smart Group in the UEM console. The Smart Group is the unit by which profiles, files, and other settings get added to the printers in bulk.

Procedure

1   Navigate to **Devices > Peripherals > Settings > Assignment Groups** and select **Add Smart Group**.

2   Select the **Select Devices or Users**. The webpage displays a warning. Select **OK**.

3   Enter the name of the printer that you want to enroll in the **Devices** text box. Select **Add**.

4   Confirm that the printer is enrolled in the new Smart Group. To enroll more printers, repeat step 3.

5   Type a name of the new smart group and select the **Save** icon. The smart group is added to the smart groups list on the **Assignment Groups** page.

Profiles Management

4

Overview

This section provides information on creating, installing and deleting printer profiles.

This chapter includes the following topics:

- Add Profile
- Install Profile
- Delete Profile

Add Profile

This section describes the procedure to add a profile to the printer on the UEM console.

Procedure

1   Navigate to **Devices > Peripherals > Settings > Profiles** and select **Add Profile**.

2   Select **TOSHIBA**.

3   Configure the parameters for the **General** profile.

    a   Enter the **Name** and **Description**.

    b   From the **Assignment Type** drop-down menu, select **Optional**. If you want to execute Install Profile automatically after you added a profile, select **Auto**.

    c   From the **Assigned Smart Groups** drop-down menu, select a smart group for which you want to install profile.

4   Configure the parameters for the **Device**, **Wi-Fi**, **Power**, **Adjustment**, and **Z-Mode** profiles.

5   Select **Save & Publish**.

Install Profile

This section describes the procedure to install profile and to configure the printer profile settings on the UEM console.

Procedure

1   Navigate to **Devices > Peripherals > Settings > Profiles**.

2   Select the profile and then select **View Devices**.

3   Select the **Install Profile** icon of the printer to which you want to install the profile settings.

Delete Profile

This section describes the procedure to delete printer profile that has been already enrolled in the UEM console.

Procedure

1. Select **Devices > Peripherals > Settings > Profiles**.

2. Select the down-arrow icon of the profile that you want to delete, and select **Delete**. Confirm that the profile is deleted from the UEM console.

Files Management

<div style="text-align: right; font-size: 3em; color: #999;">5</div>

Overview

This section provides information on adding, installing, and deleting files.

This chapter includes the following topics:

- Add File

- Install File

- Delete File

Add File

This section describes the procedure to add a file to the printer from the UEM console.

Procedure

1   Select **Devices > Peripherals > Settings > Files**.

2   Select **Add New File** and select the **TOSHIBA** icon.

3   Enter the name and description for file in respective fields.

4   Select the Assignment Type down-arrow button and select **Optional**. If you want to execute **Install File** automatically after you added a file, select **Auto**.

5   Click the **Assigned Smart Groups** field and select a smart group for which you want to execute **Install File**.

6   Select **File**, and then click **Configure**.

7   Type a file name in the **File Name** field and a file version in the **File Version** field.

 - If the extension of the file is .bas, include it in the file name. For example, if you upload the filename Z-EP-M00A.BAS, then enter the full Z-EP-M00A.BAS filename including the three-letter extension in the file name field.

 - The **File Version** means the firmware version of the file.

8   Select **Upload** and select **Browse….**. Indicate the file which you want to use and select the **Open** button.

9   Select **Save & Publish**. Confirm that the file is newly added.

Install File

This section describes the procedure to download a file uploaded onto UEM console into the printer.

Procedure

1   Select **Devices > Peripherals > Settings > Files**.

2   Select the **View Devices** icon of the file that you want to use.

3   Select the **Install File** icon of the printer to which you want to download the file. Now, the firmware gets downloaded and executed on the printer.

Delete File

This section describes the procedure to delete a file enrolled in the UEM console.

Procedure

1   Select **Devices > Peripherals > Settings > Files**.

2   Select the down-arrow menu of the file that you want to delete, and select **Delete**.

3   Confirm that the file is deleted from the UEM console.

Printer Functionalities

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Monitor Printer Alerts

This section describes the procedure to monitor the printer alerts through UEM console.

Procedure

1   Select **Devices > Peripherals > Alerts**.

2   Confirm that the alert that was just generated is added to the UEM console.

■   If alert is not added, then wait a few minutes and then select the **Refresh** icon.

This chapter includes the following topics:

■   Retrieve Printer Query

■   Reset Printer

■   Edit Printer Name

Retrieve Printer Query

This section describes the procedure to retrieve printer settings and to display them on the UEM console.

Procedure

1   Select **Devices > Peripherals > List View**.

2   Select the printer you want to monitor one's settings and select the **Friendly Name**.

3   Select **Query** and select **OK**.

Reset Printer

This section describes the procedure to execute printer reset on the printer (resets printer RAM).

Procedure

1   Select **Devices > Peripherals > List View**.

2   Select the printer you want to execute a reset on and select the **Friendly Name**.

3   Select **More – Soft Reset** (Soft Reset is same as Factory Reset in functionality).

4   Click **OK**.

Edit Printer Name

This section describes the procedure to change the name of the printer on the UEM console.

Procedure

1   Select **Devices > Peripherals > List View**.

2   Select the printer name you want to change and select the **Friendly Name**.

3   Select the **More** icon, and select the **Edit Device** icon.

4   Type a printer name in the **Friendly Name** field, and select **Save**

5   Confirm that the printer name is changed on the UEM console.

Event Logs 7

Generate Event Logs of Toshiba AirWatch Connector

This section describes the procedure to generate event log to trace the operational history of Toshiba AirWatch Connector on the print server.

Procedure

1 Select **Start** icon, and select **Run…** icon. Then the following screen is displayed. Type Eventvwr.msc in the **Open** field and select the **OK**.

2 Select the **+** icon of Windows Logs.

3 Select the **Application** icon and select the **Filter Current Log…** icon.

4 Select the down-arrow button in the **Event sources** field, and then enable the **TOSHIBA AirWatch Connector** checkbox.

5 Select **OK**. Only the event log about TOSHIBA AirWatch Connector appears. When you select a line of event log, the message is displayed on the lower part of the screen.

Enable Print Server Logs

This section describes how to enable print server logs on the print server.

Procedure

1 Navigate to the following path on the print server and open TecConnector.xml file.

c:users/public/public documents/Toshibatec/ToshibaAirWatchConnector

2 In the .xml file, update the <DebugLog> code from false to true.
   - Once the .xml is saved and the print server is up, the logs get saved in the log folder.

Troubleshooting Print Server

8

Overview

This section provides details of various troubleshooting procedures that needs to be carried out if required.

Case 1: Display of TOSHIBA AirWatch Connector service stopped screen

The TOSHIBA AirWatch Connector service on Local Computer started and then stopped. Some services stop automatically if they are not in use by other services or programs is displayed.

Reason: There are two reasons for this error to appear:

- TOSHIBA AirWatch Connector start-up failed.
- Service Uid typed on UEM console is incorrect.

Solution: Following is the procedure of re-installing the connector to resolve the issue:

1   Access the UEM console, and navigate to **Devices > Peripherals > Settings > Server** page.

2   Select the **Edit** icon for the print server which you target.

3   Type the **Unique ID** noted in TOSHIBA AirWatch Connector installation in the **Service Uid** field exactly, and select **Save**.

4   On the print server, select **Start > Run**. Type services.msc in the **Open** field, and select OK.

5   Select the name **TOSHIBA AirWatch Connector**, and select the **Start Services** icon. The TOSHIBA AirWatch Connector is started.

6   Confirm that the status of TOSHIBA AirWatch Connector is **Started**. If Started is displayed, installation is successful.

Case 2: A printer cannot be enrolled (There is no error on event log)

A printer cannot be enrolled on the UEM console. In confirming event log, there was no error log.

Reason: Default multicast IP address "239.255.0.10" would have been used in other part.

Solution: Follow the below procedure to configure multicast IP address:

1   Navigate to **Start > All Programs > Accessories > Command Prompt** on the print server.

2   Enter the address of virtual directory TOSHIBA_AWConn, and then press **Enter**.

    For example, if the address of TOSHIBA_AWConn is c: \inetpub\wwwroot\TOSHIBA_AWConn, then type cd c: \inetpub\wwwroot\TOSHIBA_AWConn

3   Type cd bin, and then press **Enter**.

4   Start **B-EP Tool for Walmart**, and select Parameter Setting – LAN.

5   Confirm that the IP address in Workspace ONE UEM shows 239.255.20.180.

6   Type the following, and then select **Enter**.

    setparam MultiCastAddress=xxx.xxx.xxx.xxx UdpAutoReceivePort=4000 MultiCastEventLog=ON

7   Regarding xxx.xxx.xxx.xxx, type multicast IP address that is configured in step 4.

8   Type **Y**, and then select **Enter**.

9   Confirm that all the said parameters are configured. And then type exit, and press **Enter**.

10 Select **Start > Run**. Type services.msc in the **Open** field, and select **OK**.

11 Select the name **TOSHIBA AirWatch Connector**, and select the **Start Services** icon.

12 Confirm that the status of TOSHIBA AirWatch Connector is **Started**. If **Started** is displayed, it indicates that the TOSHIBA AirWatch Connector is restarted.

Case 3: A printer cannot be enrolled. (There is UDP port error on event log)

A printer cannot be enrolled on UEM console. In confirming event log, an error log about UDP port is displayed.

Reason: Default UDP Port Number "4000" has been already used in other part.

Solution: Follow the below procedure to configure UDP port number.

1   Navigate to **Start > All Programs > Accessories > Command Prompt** on the print server.

2   Enter the address of virtual directory TOSHIBA_AWConn, and then press Enter.For example, if the address of TOSHIBA_AWConn is c: \inetpub\wwwroot\TOSHIBA_AWConn, then type cd c: \inetpub\wwwroot\TOSHIBA_AWConn

3   Type cd bin, and then press **Enter**.

4   Start **B-EP Tool for Walmart**, and select Parameter Setting – LAN.

5   Enable the Workspace ONE UEM checkbox, and configure UDP Port Number except 4000.

6   Type the following, and then press Enter.

    setparam MultiCastAddress=239.255.0.10 UdpAutoReceivePort=yyyy MultiCastEventLog=ON

7   Regarding yyyy, type UDP port number that is configured in step 4.

8   Type **Y**, and then select **Enter**.

9   Confirm that all the said parameters are configured. And then type exit, and press **Enter**.

10   Select **Start > Run**. Type services.msc in the **Open** field, and select **OK**.

11   Select the name **TOSHIBA AirWatch Connector**, and select the **Start Services** icon.

12   Confirm that the status of TOSHIBA AirWatch Connector is **Started**. If **Started** is displayed, it indicates that the TOSHIBA AirWatch Connector is restarted.

Case 4: Non-supported multicast error is registered. (The printer can be enrolled)

Though a printer can be enrolled on UEM console, error log about non-supported multicast is registered whenever TOSHIBA AirWatch connector is started.

Reason: Multicast IP address is not configured in "B-EP Tool for Walmart".

In other words, the host name or IP address of print server is configured in "B-EP Tool for Walmart".

Solution: According to the following procedure, disable event log about multicast.

1   Navigate to **Start > All Programs > Accessories > Command Prompt** on the print server.

2   Enter the address of virtual directory TOSHIBA_AWConn, and then press Enter.For example, if the address of TOSHIBA_AWConn is c: \inetpub\wwwroot\TOSHIBA_AWConn, then type cd c: \inetpub\wwwroot\TOSHIBA_AWConn

3   Type cd bin, and then press **Enter**.

4   Start **B-EP Tool for Walmart**, and select Parameter Setting – LAN.

5   Enable the Workspace ONE UEM checkbox, and configure UDP Port Number except 4000.

6   Type the following, and then press Enter.setparam MultiCastAddress=239.255.0.10 UdpAutoReceivePort=4000 MultiCastEventLog=OFF

7   Type **Y**, and then select **Enter**.

8   Confirm that all the said parameters are configured. And then type exit, and press **Enter**.

9   Select **Start > Run**. Type services.msc in the **Open** field, and select **OK**.

10   Select the name **TOSHIBA AirWatch Connector**, and select the **Start Services** icon.

11   Confirm that the status of TOSHIBA AirWatch Connector is **Started**. If **Started** is displayed, it indicates that the TOSHIBA AirWatch Connector is restarted.