Lexmark

Embedded Document Accounting Solution for Cost Recovery

Version 4.1

Administrator's Guide

August 2017 **www.lexmark.com**

Contents

Change history

August 2017

- Added support for Pharos Administrator application version 9.

July 2016

- Initial document release for multifunction products with a tablet-like touch-screen display.

Overview

Use the application to authenticate your access to the established configuration and billing information on a Pharos server. This application lets you create and manage customized billing models that are applied to printer tasks such as copying, faxing, e-mailing, and releasing queued print jobs.

This application communicates with a designated Pharos server through the Pharos External Device Interface (EDI) web service. Using Simple Object Access Protocol (SOAP) messages and Secure Sockets Layer (SSL) messages lets you access the established configuration information on the Pharos server.

For the application to work, do the following:

- Obtain and install the electronic licenses used to enable the application.
- Configure the application.
- Configure the Pharos server.

This document is intended for use by service providers and network administrators responsible for the implementation and management of this software in their network environment. A working knowledge on how to configure the Pharos server is required.

This document provides instructions on how to configure, use, and troubleshoot the application.

Notes:

- The application does not support single sign-on and is not dependent on any authentication method configured on the printer. Authentication depends on the users registered on the Pharos server.
- The application does not support the print policy provided by the Pharos server.
- Throughout this guide, the word *device* is used interchangeably with the word *printer* to describe both single-function printers (SFPs) and multifunction products (MFPs).

Deployment readiness checklist

Make sure that:

- ☐ The Pharos server and the network licenses that are required when connecting to the printer are installed. For more information, see the documentation for your Pharos server.
- ☐ You have the URL that points to the Web Services Description Language (WSDL) file of the Pharos server.
- ☐ You have the Pharos server EDI password.
- ☐ One or more of the following authentication scripts are installed on the Pharos server:
  - **SingleLogIn**—Use a user name, PIN, or card authentication method.
  - **Log-inCombination**—Use a combination of user name, password, or PIN authentication method.
  - **CardPinCombination**—Use a card and PIN, or card and password authentication method.

  Note: The scripts are available together with the application package.
- ☐ The following printer applications are disabled:
  - Embedded Document Account Solution for User Tracking
  - Device Quotas
  - Shortcut Center

Configuring the Pharos server

The Pharos server controls the configuration information for the different tasks that the devices perform. For each device functionality that document accounting is applied to, configure the Network Terminal object and queue objects on the Pharos server.

The components that are needed to support document accounting may overlap more than one task. As a result, the configuration process is different for each task.

Note: The following instructions are for the Pharos Administrator application version 9.

Creating a registry setting

1. Open Registry Editor, and then navigate to:

   HKEY_LOCAL_MACHINE > **SOFTWARE** > **Pharos** > **Edi**

2. Create a string value named **`Enable Retired Calls`**.
3. In the "Value data" field, type **`7.2`**.
4. Restart the Pharos server EDI.

Note: For more information on the Pharos server EDI, see the documentation for your Pharos server.

Configuring Network Terminal objects

Most of the configuration information for the application comes from the custom Network Terminal object. The custom terminal types can be added individually by selecting the appropriate custom Network Terminal file when creating Network Terminals in the Pharos Administrator application.

Note: For more information on updating the Pharos server SQL database or using the Pharos Administrator application, see the documentation for your Pharos server.

The custom terminal type enables the application to integrate with the Pharos server. Before the configuration process, create a Network Terminal object in the Pharos server for each device. Always select the custom Network Terminal type.

To determine how the application behaves, from the Pharos Administrator application, click **Release Stations**, select a release station, and then configure the following settings:

Note: In SFPs, the available tabs are only General, Authentication, Charging, and Print Release.

Authentication settings

- **Display Balance**

  Note: For SFPs, you can access this setting in the Print Release section.

- **Beep on CardSwipe**—The device emits an audible beep for each card swipe.
- **Enable Alternate Authentication**—Let users log in manually. If this setting is disabled, then users are prompted for the first or second authentication token, or both.
- **Card Authentication Message**—The message that is shown when users authenticate. The default message is **`Please swipe your ID card`**.

- **First Authentication Token**—The initial type of authentication prompt.
- **Lock User Account for Duration of Session**—The user is prevented from starting sessions at multiple MFPs and completing transactions when the account balance is zero.
- **Second Authentication Token**—The extra type of authentication prompt.

Charging settings

- **Allow User Override of Third Party Charging**—Transactions are charged directly to the user's account.
- **Charging Model**—A list of charging models available for use with third-party charging.
- **Print costing related debug messages to the log**—The log is accessed in the registry. For information on accessing the log file, see the documentation for your Pharos server.

Copy settings

Make sure to designate the device as a copy station in the General section. Otherwise, all values under this section are ignored.

- **Do Not Charge for the First Copy**
- **Hide Copy Icon if Copy Disabled**

Email settings

- **Charge each recipient separately**
- **Email Job Cost Method**—The cost method that is used when sending e-mail. This field is required.
- **Enable Email Station Functionality**—Document accounting for e-mail is available.
- **Hide Email Icon if Email Disabled**
- **Restrict/Lock From Address**—The user's e-mail address defined in the Pharos server database is used.
- **Scan To Self only**—The user's e-mail address automatically receives the scan job.

Fax settings

- **Charge each recipient separately**
- **Enable Fax Station Functionality**—Document accounting for fax is available.
- **Hide Fax Icon if Fax Disabled**

FTP settings

- **Enable FTP Station Functionality**—Document accounting for FTP is available.
- **FTP Job Cost Method**—The cost method that is used when sending a document through FTP. This field is required.
- **Hide FTP Icon if FTP Disabled**

General setting

- **Administrator Contact Info**—The system administrator's contact information is shown in a prompt.

Print Release settings

Make sure to designate the device as a print station in the General section. Otherwise, all values under this section are ignored.

Note: In SFPs, some settings have different names.

- **Allow User to Delete Queued Print Jobs**
- **Display Print Jobs for All Users**
- **Display a Delete Confirmation Screen**
- **Display a Release Confirmation Screen**
- **Display Running Cost Totals**—The total cost at a given time is shown when users select a print job.

  Note: If third-party charging is enabled, then this option is not applicable.
- **Display button to Select or Deselect all Jobs**—All queued print jobs are either selected or cleared with a single button.
- **Calculate Page Count and Cost Immediately**
- **Display cost**
- **Release all print jobs after user authentication**

  Note: If this setting is enabled, then confidential print jobs are not printed.

USB settings

- **Enable USB Station Functionality**—Document accounting for USB is available.
- **Hide USB Icon if USB Disabled**
- **USB Print Job Cost Method**—The job cost method that is used when printing a document from a flash drive. This field is required.
- **USB Scan Job Cost Method**—The job cost method that is used when scanning a document to a flash drive. This field is required.

Note: For more information on USB limitations, see the *Readme* file.

Configuring a release station

Print Release lets you submit a print job to a queue where it remains until it is released to a printer from a designated release station. Configuring a device for Print Release establishes the device as a release station where the releasing of print jobs can be controlled. This process allows the appropriate billing model to be applied to each print job.

Print jobs are submitted to the queue through the Pharos Popup Client. Install the client on computers that print through the release station.

Notes:

- Direct queues send print jobs directly to the associated printer after costing. Held queues keep the print jobs in the server until a user releases them. Queue objects for use with a release station must be designated as held queues.
- For information on setting up release stations, and on installing the Pharos Popup Client, see the documentation for your Pharos server.

Enabling job deletion

1. From the Pharos Administrator application, click **Release Stations**.
2. Select the device, and then expand **Print Release**.

3 Set the “Allow User to Delete Queued Print Jobs” setting to **Yes**.

Configuring an MFP for use as an e-mail station

Notes:

- Make sure that the Job Cost Method properties are established.
- For a list of printers that support the e-mail functionality, see the *Readme* file.

1 From the Pharos Administrator application, click **Release Stations**.

2 Select the device, and then expand **Email**.

3 Enable the e-mail station functionality, and then select the job cost method.

Configuring an MFP for use as a fax station

Notes:

- Advanced fax features require a hard disk in the MFP.
- A fax costing script that uses the GetFaxJobCost Pharos server plug-in is required. For more information on creating scripts for the Pharos server, see the documentation for your Pharos server.
- For a list of printers that support the fax functionality, see the *Readme* file.

1 From the Pharos Administrator application, click **Release Stations**.

2 Select the device, and then expand **Fax**.

3 Enable the fax station functionality.

To set a job cost method, create a fax costing script, and then apply it to the GetFaxJobCost event.

Configuring an MFP for use as an FTP station

Notes:

- Make sure that the Job Cost Method properties are established.
- For a list of printers that support the FTP functionality, see the *Readme* file.

1 From the Pharos Administrator application, click **Release Stations**.

2 Select the device, and then expand **FTP**.

3 Enable the FTP station functionality, and then select the job cost method.

Configuring an MFP for use as a USB station

Notes:

- Make sure that the Job Cost Method properties are established.

- For more information on USB limitations and for a list of printers that support the USB functionality, see the *Readme* file.

1. From the Pharos Administrator application, click **Release Stations**.
2. Select the device, and then expand **USB**.
3. Enable the USB station functionality, and then select the job cost method.

Charging

The charging configuration determines how jobs are charged. The charging type can be either a third-party charging model or a standard charging model.

If a third-party charging model is selected, then the user is prompted to select to charge the third party. Depending on the configuration of the Network Terminal object, the user can also select to override the third-party charging and charge the job to the user.

If the charging model of the Network Terminal object is set to **None**, then standard charging is applied. The charging is based on the billing option established in the user's Pharos server account.

For more information on charging, see the documentation for your Pharos server.

Charging jobs to third-party clients

Third-party charging lets you charge jobs to a designated third party, such as a third-party client, different departments in the same organization, or individual customers. This method is available for use of each task supported by the device.

To use third-party charging, create a charging model with the appropriate constraints for each type of third-party charging.

For more information, see the documentation for your Pharos server.

Charging jobs to users

If a third-party charging model is not applied to the Network Terminal object, then standard charging is used by default. Standard charging is based on the following billing options designated for each user:

- **Advance**—The cost of the job is deducted from the user's account balance.
- **Arrears**—The cost of all jobs is accumulated and the user pays later.

Notes:

- For more information on using standard charging, see the documentation for your Pharos server.
- The application does not track the changes to the billing option. Changing the billing option converts a user's account balance to either debit or credit, depending on the user's initial billing option. For example, if the user's account is set to Advance, then changing the billing option to Arrears converts the user's account balance from debit to credit.
- The USB functionality is not available for use with the Advance billing option.
- Except for Print Release, Advance billing transactions require a printer hard disk. For more information on the hard disk, see the printer *User's Guide*.

Configuring user authentication

By default, the Pharos server verifies the user authentication by using a Pharos server login ID and password. If a different method is used with the device, such as a card, user name and password, or PIN, then an authentication script is required.

Note: For more information on generating the authentication script or setting up a user account for the Pharos server, see the documentation for your Pharos server.

1. From the Pharos Administrator application, create a bank.
   1. Click **System** > **Banks** > **Insert**.
   2. Configure the settings.
   3. Click **OK**.
   4. From the General section, in the Plug-Ins field, associate the authentication script with the Logon event.
2. Click **Release Stations**, and then select a release station.
3. From the General section, in the Bank menu, select the new bank.
4. From the Authentication section, set the first and second authentication tokens.

Setting up a manual login option for card users

1. Create a script by using the sample script included in the *CardIDAlternateScript.pdf* of the application package. For more information on creating scripts in the Pharos server, see the documentation for your Pharos server.

   Note: The sample script also allows for a custom card message to appear on the display. The settings for this custom message reside in the Authentication section of the Network Terminal object.
2. From the Pharos Administrator application, create a bank.
   1. Click **System** > **Banks** > **Insert**.
   2. Configure the settings.
   3. From the PC Pharos Station section, in the "Source of Identification" and "Source of Payment" menus, select **ID and Password Dialog Box**, and then click **OK**.
   4. From the General section, in the Plug-Ins field, associate the authentication script with the Logon event.
3. Click **Release Stations**, and then select a release station.
4. From the General section, in the Bank menu, select the new bank.
5. From the Authentication section, set the first authentication token to the new bank.
6. Set the second authentication token to **None**.
7. Restart the application. For more information, see "Restarting the application" on page 13.

Configuring the application

You may need administrative rights to configure the application.

Accessing the Embedded Web Server

1. Obtain the printer IP address. Do either of the following:
   - Locate the IP address on the printer home screen.
   - From the printer home screen, touch **Settings** > **Network/Ports** > **Network Overview**.
2. Open a web browser, and then type the printer IP address.

Configuring the application

1. From the Embedded Web Server, navigate to the configuration page for the application:

   Apps > **Lexmark Embedded Document Accounting for Cost Recovery** > **Configure**
2. Configure the settings.

   Note: For more information, see the mouse-over help for each setting.
3. Click **Apply**.

Note: Your network may require a proxy server for the device to communicate with the Pharos server. Configure the proxy settings in the Embedded Web Server.

Restarting the application

Configuration changes made on the Pharos server take effect after the server session is refreshed. To check that the changes are saved before the server session refresh, restart the application on the device.

From the Embedded Web Server, click **Apps** > **Lexmark Embedded Document Accounting for Cost Recovery** > **Stop** > **Start**.

Using the application

The behavior of the printer functions changes to accommodate the use of document accounting. The following instructions help administrators in instructing users to perform each task.

Notes:

- The application does not track the canceling of released jobs.
- When recording job details, the Pharos server uses information from the spool file that the driver or application creates. Some details may be incorrect when the driver provides nonstandard PostScript® or PCL® emulation code.

Printing documents

1. Submit a print job through the Pharos Popup Client.
2. From the printer home screen, touch **Release Station**.
3. Enter your authentication credentials.
4. If necessary, select the charging option.
5. Select one or more print jobs.
6. If necessary, configure the settings.
7. Touch **Print**.

Notes:

- If the **Release all print jobs after user authentication** feature is enabled in the Pharos Administrator application, then confidential print jobs are not released.
- In Embedded Solutions Framework (eSF) version 6, color print jobs are converted to black and white if the color cartridge becomes empty. Releasing color print jobs that are converted to black and white are still counted as color print jobs.

Copying documents

1. Load the document into the automatic document feeder (ADF) tray or on the scanner glass.
2. From the printer home screen, touch **Copy**.
3. Enter your authentication credentials.
4. If necessary, select the charging option.
5. If necessary, configure the settings.
6. Touch **Copy**.

Scanning to e-mail

1. Load the document into the ADF tray or on the scanner glass.
2. From the printer home screen, touch **Email**.
3. Enter your authentication credentials.
4. If necessary, select the charging option.
5. Type the e-mail address of the recipient.
6. If necessary, configure the settings.
7. Touch **Email**.

Note: In eSF version 6, the application overrides the Limit E-mail Recipients setting and lets users edit the recipient fields when sending e-mail.

Scanning to fax

1. Load the document into the ADF tray or on the scanner glass.
2. From the printer home screen, touch **Fax**.
3. Enter your authentication credentials.
4. If necessary, select the charging option.
5. Enter the fax number of the recipient.
6. If necessary, configure the settings.
7. Touch **Fax**.

Scanning to FTP

1. Load the document into the ADF tray or on the scanner glass.
2. From the printer home screen, touch **FTP**.
3. Enter your authentication credentials.
4. If necessary, select the charging option.
5. Type the FTP address.
6. If necessary, configure the settings.
7. Touch **Scan**.

Scanning to a flash drive

Note: Scanning to a flash drive is not available for use with the Advance billing option. For more information on USB limitations, see the *Readme* file.

1. Load the document into the ADF tray or on the scanner glass.
2. Insert the flash drive into the USB port of the printer.
3. Enter your authentication credentials.
4. If necessary, select the charging option.
5. Touch **Scan to USB**.
6. If necessary, configure the settings.
7. Touch **Scan**.

Printing from a flash drive

1. Insert the flash drive into the USB port of the printer.
2. Enter your authentication credentials.
3. If necessary, select the charging option.
4. Select one or more print jobs.
5. If necessary, configure the settings.
6. Touch **Print**.

Note: For more information on USB limitations, see the *Readme* file.

Troubleshooting

Application error

Try one or more of the following:

Check the diagnostic log

1. Open a web browser, and then type ***IP/se***, where ***IP*** is the printer IP address.
2. Click **Embedded Solutions**, and then do the following:
   a. Clear the log file.
   b. Set the logging level to **Yes**.
   c. Generate the log file.
3. Analyze the log, and then resolve the problem.

Adjust the scan settings

1. From the Embedded Web Server, navigate to the configuration page for the application:

   Apps > **Lexmark Embedded Document Accounting for Cost Recovery** > **Configure**
2. From the scanning options, select a lower scan resolution or turn off color scanning.
3. Click **Apply**.

Contact your Lexmark representative

Cannot communicate with the Pharos server

Try one or more of the following:

Make sure that the Pharos server is licensed

Make sure that the Pharos server URL and password are correct

Make sure that the Pharos server is turned on and ready to receive SOAP messages from the application

Make sure that the Pharos server and all appropriate network cables are securely connected

Check the diagnostic log

1. Open a web browser, and then type ***IP*/se**, where ***IP*** is the printer IP address.
2. Click **Embedded Solutions**, and then do the following:
   - a. Clear the log file.
   - b. Set the logging level to **Yes**.
   - c. Generate the log file.
3. Analyze the log, and then resolve the problem.

   Note: To avoid insufficient memory problems, after analyzing the log, set the logging level to **No**.

Contact your Lexmark representative

Cannot detect the card reader

Try one or more of the following:

Disconnect the card reader, and then connect it again

Restart the printer

Contact your Lexmark representative

Unknown device

Try one or more of the following:

Make sure that the device is added in the Pharos server

For more information, see the documentation for your Pharos server.

Contact your administrator

Cannot delete jobs

Try one or more of the following:

Make sure that the document is available in the Pharos server

Contact your administrator

Cannot print jobs

Try one or more of the following:

Make sure that the document is available in the Pharos server

Make sure that the Pharos server URL and password are correct

Make sure that the Pharos server is turned on and ready to receive SOAP messages from the application

Contact your administrator

User is logged out when releasing print jobs

When Card Authentication is enabled, tapping the badge on the card reader for the second time automatically logs out the user. To avoid being logged out, try one or more of the following:

Log in manually to the printer

Enter your user authentication credentials when releasing print jobs

Contact your administrator

The custom Network Terminal type is unavailable when creating a Network Terminal object

Import the custom Network Terminal type files

If the station type is not installed, then select **Other** and import the appropriate XML file.

For more information on selecting the appropriate XML file, see the *Readme* file.

Configuration changes on the Pharos server do not appear on the device

Restart the application

For more information, see "Restarting the application" on page 13.

The application does not work properly after completing the authentication process

Make sure to apply constraints for charging codes when using a third-party charging model

Contact your Lexmark representative

The Pharos Popup Client does not work properly

Make sure that the registry setting of each computer with the Pharos Popup Client has the correct Pharos server IP address

"Not configured to support [function]" error message appears

Try one or more of the following:

Make sure that a printer hard disk is installed

For more information, see the printer *User's Guide*.

Make sure that the hard disk has sufficient space

1. From the Embedded Web Server, click **Reports** > **Print Directory**.
2. In the Optional Disk Memory section, note the value associated with **free**.

   Note: For more information on clearing up hard disk memory, see the printer *User's Guide*.

Contact your administrator

License error

Contact your Lexmark representative

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August 2017

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Index

S

T

U