Lexmark Cloud Services

New and Changed Functionality

Lexmark Cloud Services, November 2021, version D

Previous New and Changed Functionality documents.

- ## 2021-October
    - ▶ https://www.lexmark.com/content/dam/lexmark/documents/user-guides/y2021/2021-October-New_and_Changed_Functionality.pdf

- ## 2021-September
    - ▶ https://www.lexmark.com/content/dam/lexmark/documents/user-guides/y2021/2021-September-New_and_Changed_Functionality.pdf

- ## 2021-August
    - ▶ https://www.lexmark.com/content/dam/lexmark/documents/user-guides/y2021/2021-August-New_and_Changed_Functionality.pdf

- ## 2021-July
    - ▶ https://www.lexmark.com/content/dam/lexmark/documents/user-guides/y2021/2021-July-New_and_Changed_Functionality.pdf

Print Management

Integration with Universal Print

Print Management: Universal Print

New

- Universal Print
  - A print solution that organizations can use to manage their print infrastructure through cloud services hosted from Microsoft Azure.
  - Runs entirely on Microsoft Azure.
  - Does not require any on-premises infrastructure
    - Provides a clientless print submission.
    - Defines a unique universal print queue for each universal print-capable printer.

- Cloud Print Management (CPM) / universal print integration.
  - Provide a new submission path into CPM.
  - Defines a unique universal print queue for CPM.
  - Allows users to submit print jobs to the universal print queue to be held for release using any of Lexmark CPM's job release methods.
    - Print jobs submit using universal print queue can be released at any printer CPM-capable printer.
      - Includes 3rd-party and non-CPM capable Lexmark printers using the 3rd-Party Print Release Adapter.

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Universal Print: Prerequisites

New

- System prerequisites:
  - Organization federated with Azure Active Directory
  - Windows 10 workstations, v1903 or later.
    - Workstations must be connected to the Azure Active Directory.
  - User account(s) in the federated organization with:
    - Azure Active Directory: Printer Administrator role.
    - Lexmark Cloud Services: Organization Administrator role.

Universal Print: CPM Configuration

New

- The virtual universal print printer is registered from the Print Management portal

  - ▶ Administration->Organizational Policy

    - Enable "Universal Print"
    - Enter the printer's name.
    - Enter the printer's share name.
      - The printer's share name must be unique.
    - Click "Save Changes" to begin the printer registration process.
    - A prompt for an Azure Account will be shown.

  - ▶ The successfully registered virtual printer will be shown.

Universal Print Integration
☑ Enable Universal Print
Registers a printer to Azure Active Directory(AD) for releasing print jobs through Cloud Print Management

Specify a name for the printer and printer share name

Printer name

UP@DEMO

This is the name of the printer as it will appear in Azure AD.

Printer share name

UP@SHARE

This is the unique shared name of the printer as it will appear in Microsoft Windows.

After selecting 'Save Changes', you will prompted to select a required Microsoft account to register the printer. You may need to sign in to that account.

[Save Changes] [Discard Changes]

Universal Print Integration
☑ Enable Universal Print
Registers a printer to Azure Active Directory(AD) for releasing print jobs through Cloud Print Management

Registered Virtual Printer

Printer name : UP@DEMO
Printer share name : UP@SHARE

[Save Changes] [Discard Changes]

Note: Account(s) with the Azure Print Administrator and Lexmark Cloud Services Organization Administrator roles must be used.

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Universal Print: Azure Configuration

New

- The configuration of the virtual universal printer is performed in the Azure portal.
  - ▸ In the Azure portal, click the Universal Print icon.
    - ▪ A list of Universal Printers will be shown.
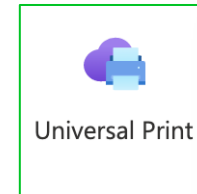
Name ↑↓	Status ↑↓	Share Status	Share Name
UP@DEMO	✓ Ready	✓ Printer Shared	UP@SHARE
sid	✓ Ready	✓ Printer Shared	sidh
Get-PSSession	✓ Ready	✓ Printer Shared	cmd.exe

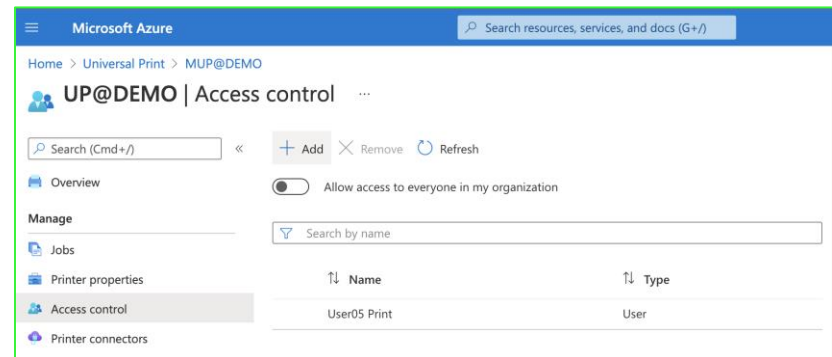Note: An account with the Azure Print Administrator role must be used.

Universal Print: Azure Configuration

New

- The virtual universal printer must be shared in order to be used.

  ▶ It can be shared, using the Access Control page, with:

   ▪ The entire organization
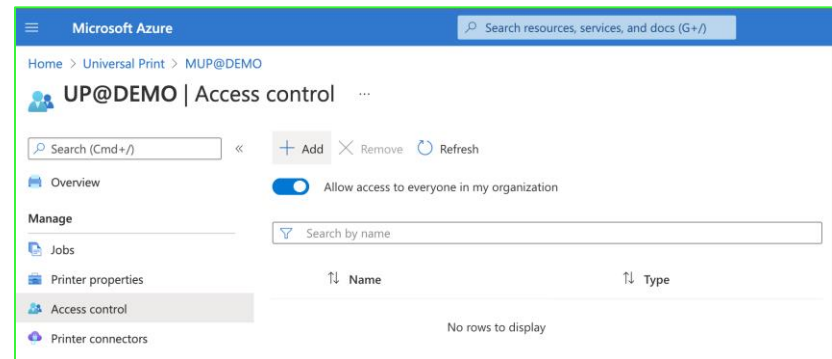
    ▪ One or more specific users

Note: An account with the Azure Print Administrator role must be used.

Universal Print: Workstation Configuration

New

- The virtual universal printer queue must be added to each Windows workstation.

  ▶ Open the Printers & scanners dialog on the printer.

  ▶ Click the virtual universal printer and click "Add device".

- Windows creates a class driver print queue pointing the virtual printer.

- The virtual universal print queue for CPM is now ready for use.
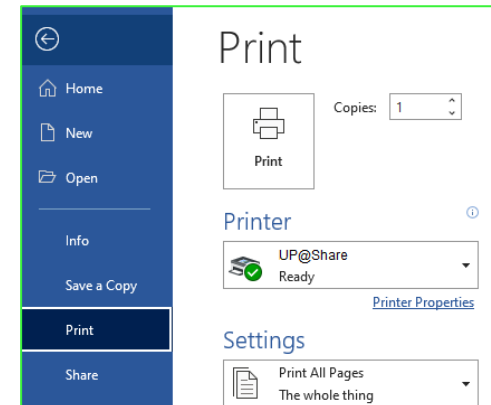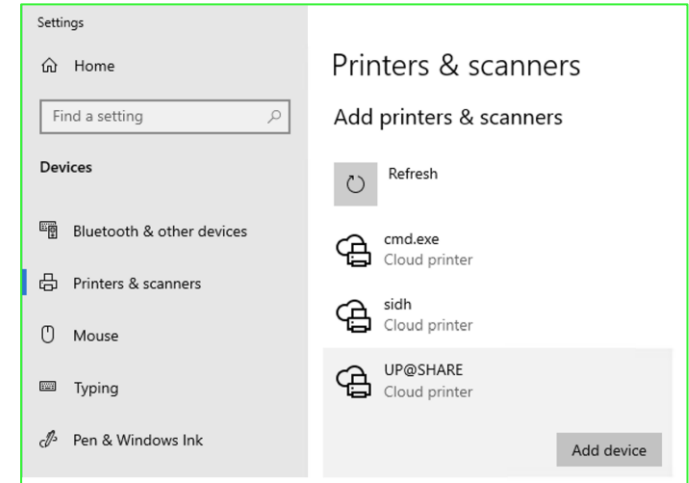
Universal Print: Print Job Submission

New

- When printing, the virtual universal print queue is selected.
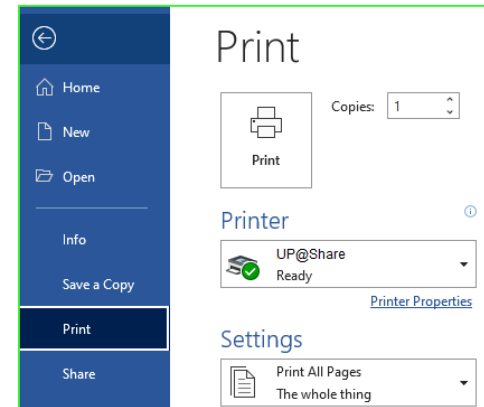
- Print jobs submitted to the virtual universal print queue:

  - Will be shown in the user's Print Management print queue.

    - The Source will show "Universal Print".

  - Can be managed, for example released or deleted, like any other print job submitted to CPM.
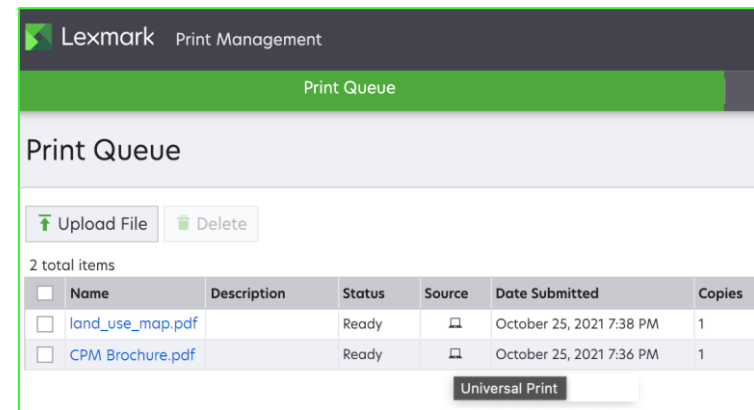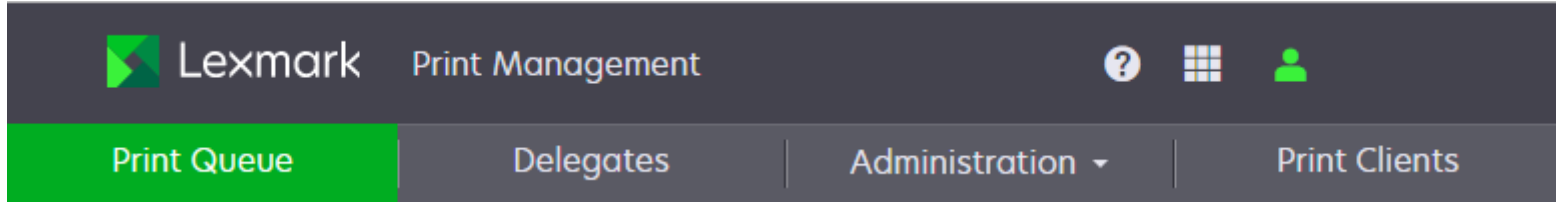
Print Management

Print Clients Tab

Print Management: Print Clients Tab

New

- The Client Download tab has been renamed to "Print Clients".

- The Client Download page has been redesigned.

  ▸ Tab name changed to Print Clients

- Select a client

  ▸ Windows®

  ▸ macOS®

  ▸ Chrome

  ▸ iOS

  ▸ Android™

- Client-specific options and information are shown.

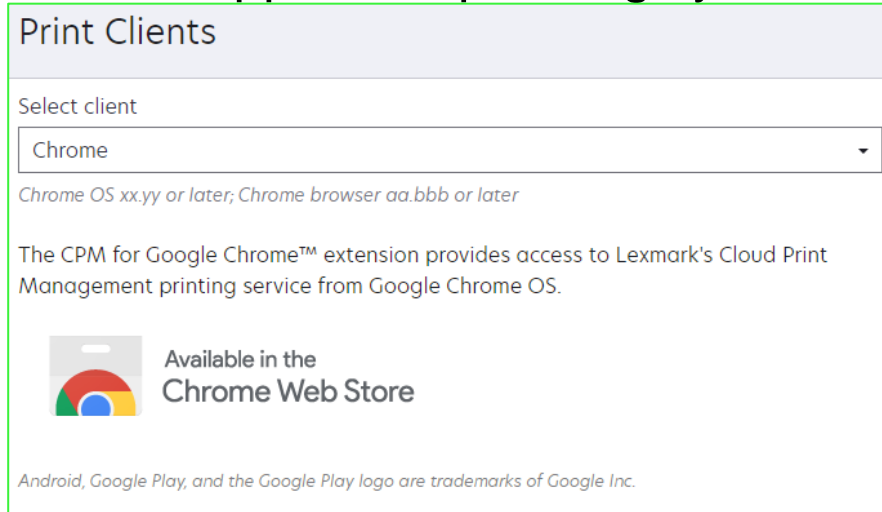# Print Clients Options: Windows and macOS

New

- "Select client": Windows® or macOS®

- Shows supported operating system versions

- "Select package type"
  - ▸ Cloud Print Management
  - ▸ Hybrid Print Management
  - ▸ Custom package

Print Clients

Select client

Windows®

Windows 8, Windows 10.xxx and later

Select package type

Cloud Print Management

Package contents

- Cloud Print Management
  Version: 2.3.997.0
- Capability to change settings at the printer
- PCLXL driver

Download Client

Microsoft and Windows are either registered trademarks or trademarks of the Microsoft group of companies in the United States and other countries

- "Package contents"
  - ▸ "Cloud Print Management" and "Hybrid Print Management"
    - ▪ Lexmark Print Management Client (LPMC) version
    - ▪ Universal print driver version
  - ▸ "Custom package"
    - ▪ Provides a "Create package" button.
    - ▪ Allows package settings to be customized.

Select package type

Custom Package

Create and then download a custom package that includes:

- Global client settings
- Cloud Print Management and/or Hybrid Print Management
- Print driver selection
- Default printer selection

Create Package

Print Clients Options: Chrome

New

- "Select client": Chrome

- Shows supported operating system and browser versions.

Print Clients

Select client

Chrome ▾

Chrome OS xx.yy or later; Chrome browser aa.bbb or later

The CPM for Google Chrome™ extension provides access to Lexmark's Cloud Print Management printing service from Google Chrome OS.

Available in the
Chrome Web Store

Android, Google Play, and the Google Play logo are trademarks of Google Inc.

- The Chrome Web Store icon is a link to the Chrome Web Store page for the Lexmark Cloud Print Management extension for Chrome.

chrome web store

Home > Extensions > Lexmark Cloud Print Management for Chrome

Lexmark Cloud Print Management for Chrome

Offered by: Lexmark International, Inc
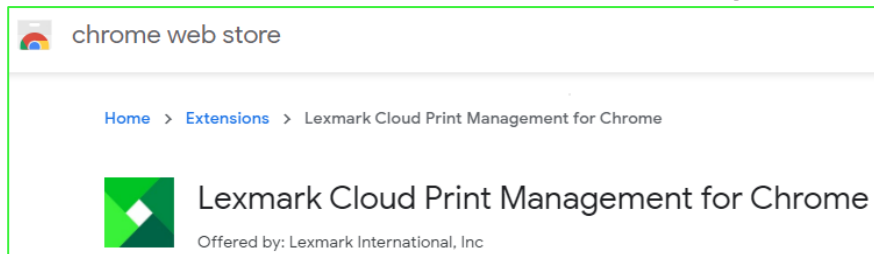
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Print Clients Options: iOS and Android

New

- "Select client": iOS or Android™

- Shows supported operating system versions.

- The Apple Store and Goggle Play icons link to their store's page for the Lexmark Mobile Print application.

Print Management

Print Clients

Print Management: eSF Application Updates

New

- ## Cloud Authentication

  - ▶ Maintenance updates

  - ▶ e5 and later: v5.6.28

  - ▶ e3 and e4: v2.6.21

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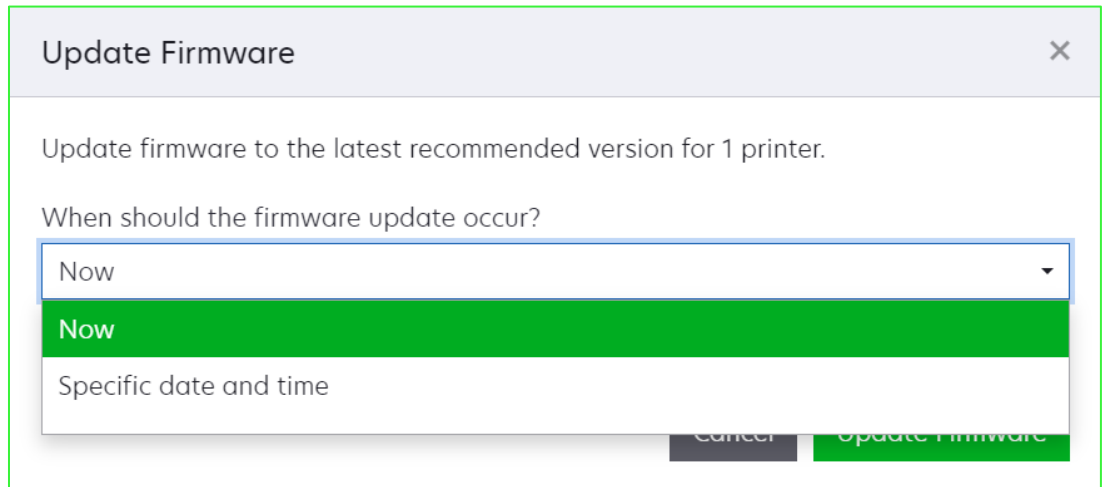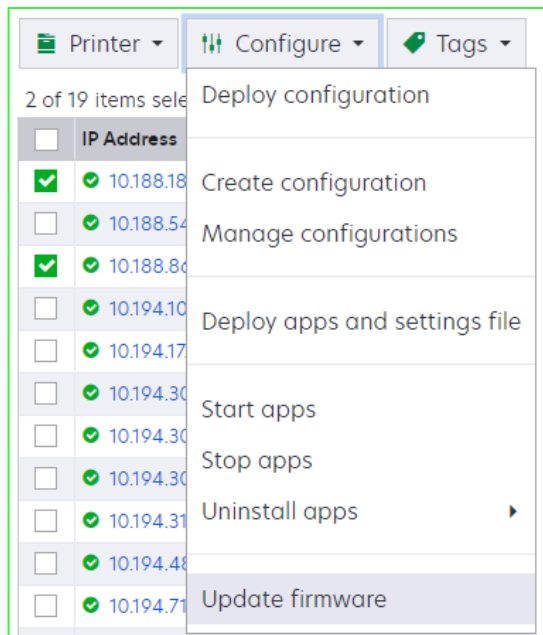# Fleet Management

Scheduled Firmware Updates

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Fleet Management: Scheduled Firmware Updates

New

- Options for updating printer firmware are now available.
  - ▸ Firmware can be updated now, or
  - ▸ At a specific date and time.

- Select one or more printers, expand the **Configure** menu, and select "**Update firmware**".

Fleet Management: Scheduled Firmware Updates

New

- A one-time scheduled update task can be created.

- Provide a name for the task.
  - ▸ Used to identify a specific scheduled task.

- Select the date and time for the task to be executed.
  - ▸ The Time zone setting allows the start time to be for a specific time zone.
  - ▸ The default is the local time zone.

- The "Task window" defines how long new, individual tasks will be allowed to start.
  - ▸ Important when multiple printers have been selected.
  - ▸ Individual tasks that do not start before the Task Window ends will be canceled.

Update Firmware ✕

Update firmware to the latest recommended version for 1 printer.

When should the firmware update occur?

Specific date and time

Scheduled task name

Enter a descriptive name

A descriptive name to easily find this task on the schedule. 64 characters maximum.

Start date

11/01/2021

Start time | Time zone
4:44 PM | (UTC -4) America/New_York

Task window

The time window for starting the task for all selected printers.

Hours | Minutes
− 1 + | − 0 +
Range: 1 - 23 hours. | *Range: 0 - 59 minutes.*

Firmware End User License Agreement

Cancel | Update Firmware

Fleet Management: Scheduled Tasks

New

- Scheduled tasks can be seen by expanding the **Tasks** menu and selecting **Schedule**.

Tasks ▾

Status

Schedule

Schedule

🗑 Delete

1 of 1 items selected

☑	Scheduled Task Name	Type	Details	Starts	Task window (hh:mm)
☑	Corporate Offices	Update firmware	1 printer	11/1/2021, 4:41 PM A...	01:00

- The task settings, except for the selected printer(s), can be changed by clicking the task name.

- A scheduled task can be deleted by selecting it and clicking the **Delete** button.

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Fleet Management: Scheduled Tasks

New

- After the Scheduled task starts, the task's status can be seen by expanding the **Tasks** menu and selecting **Status**.

- More information about the task can be seen by clicking the icon next to the task's start time.

Fleet Management: Scheduled Tasks

New

- Clicking on the Task ID of the scheduled task will show the status of the executing individual tasks.

Status

Currently Running Tasks (1)

1 total item

Task ID	Type	Details	Started	Status	
51549598	Update firmware	1 printer	11/1/2021, 4:41:00 PM	0%	× Stop

51549598

Task status: In progress

▼ Status ▾   → Export to CSV

1 total item

Identification	Started	Completed	Duration (hh:mm:ss)	Status
10.199.109.228	11/1/2021, 4:41:00 PM			O In progress (Step 1 of 5)

Note: Once an individual task has started in the specified task window, it cannot be stopped. It will continue to execute even after the Task Window has expired.

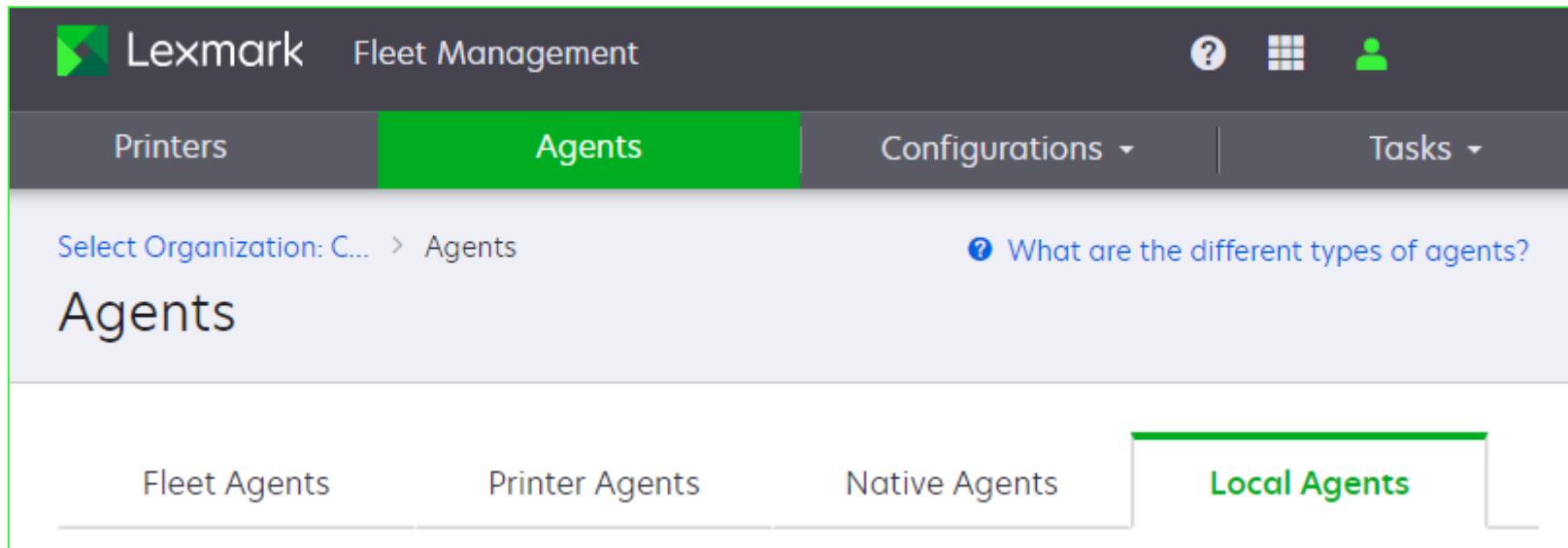# Fleet Management

Local Agent

Fleet Management: Local Agent

New

- The Local Agent is a new Fleet Management agent for managing USB-connected printers through Cloud Fleet Management.

  ▸ Joins the Native Agent, Fleet Agent, and Printer Agent.

Fleet Management: Agent Types

- The Local Agent *New*
  - Is an application configured and installed on a computer system that has USB-attached printers. It enrolls locally-attached printers from Lexmark and other manufacturers to LCS. Uses Internet of Things (IoT) connection to communicate with Lexmark Cloud Services (LCS).

- The Native Agent
  - Is included as part of the firmware for Lexmark printers that are Internet of Things (IoT) capable. When enabled, it can enroll the Lexmark printer to Lexmark Cloud Services (LCS). To enroll multiple printers with native agents simultaneously, use the Printer Enrollment Tool (PET). A pre-enrollment option is also available.

- The Fleet Agent
  - Is an application configured and installed on a dedicated on-site computer system with high availability. It enrolls one or more printers from Lexmark and other manufacturers to LCS.

- The Printer Agent
  - Is an application configured and installed on a Lexmark printer to enroll that printer to LCS. To use a printer agent, the Lexmark printer must support eSF applications. Use the PET to enroll a printer with a Printer Agent.

Fleet Management: Local Agent

New

- The Local Agent is currently available for
  - Windows 64-bit
  - Windows 32-bit

- The Local Agent supports:
  - Updating firmware
  - Remotely retrieving printer information
    - Printer capabilities
    - Page counts; Mono, color, and lifetime
    - Supplies; Levels and status

- Uses IoT communications protocols to connect with Lexmark Cloud Services.
  - See the Lexmark Cloud Services Infrastructure Host lists at the end of this document.

Local Agent: Installation

New

- ## New Local Agents must be

  ▸ ## Downloaded from the Fleet Management portal.
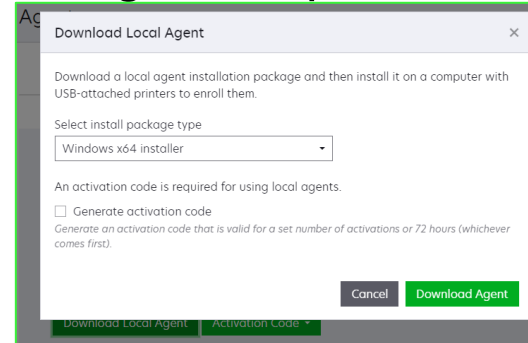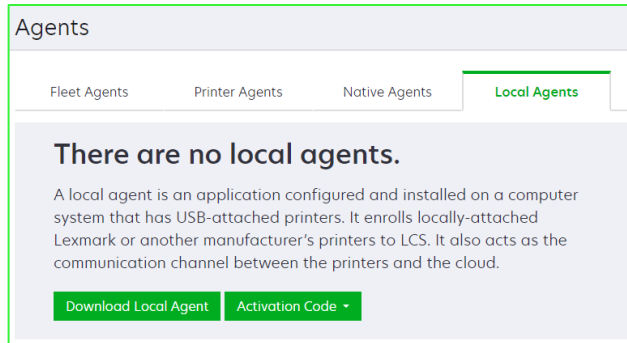
  ▸ ## Installed in on the workstation with the USB-connected printer to be enrolled.

  ▸ ## Activated using an activation code from the Fleet Management portal.

  ▪ ## The activation code will expire in 3 days.
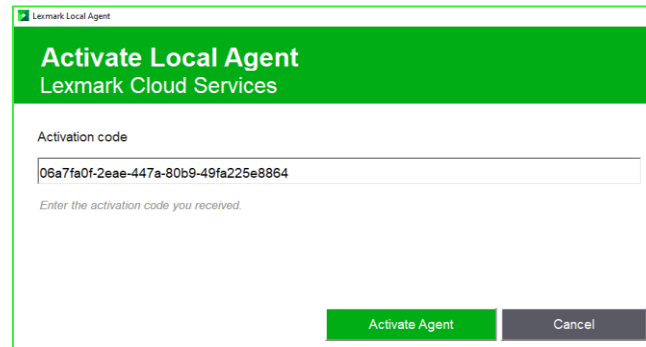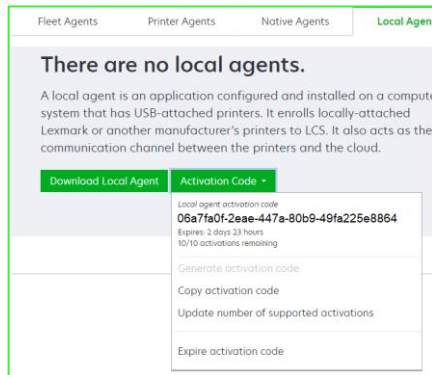
Local Agent: Installation Options

New

- The Local Agent installer supports
  - Manual installation
    - User runs the installer and enters the activation code.
  - Scripted install
    - Activation code include in the installation configuration files.

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Local Agent: Enrolling Printers

New

- All USB-connected printers will be automatically enrolled after the Local Agent is installed.

  ▸ All printers enrolled under a Local Agent are listed under the IP address of their Local Agent's host.

  ### Printers

	Filters	Hide						

  Filters Hide | ☰ Printer ▾ | ⇅ Configure ▾ | 🏷 Tags ▾ | ➡ Export to CSV | ▥ Views ▾ | ↻ | ▾

  ▸ Comm... Clear

  2 total items

  ▸ Supply Al... Clear

  ▸ Printer Al... Clear

	IP Address	Agent Type	Model	Serial Number
☐	✅ 10.199.111.94	Printer	MX810	4763369903M0B
☐	✅ 192.168.86.237	Local	MX410de	7015207200004

- An activated Local Agent is listed under the computer name of the Local Agent's host.

  ### Agents

Fleet Agents	Printer Agents	Native Agents	**Local Agents**

  ⬇ Download Agent | 🔲 Activation Code ▾ | ↻ Update | 🔻 Agent Status ▾ | 🔻 Update Available ▾ | Search local agents ✕ | 🔍

  1 of 1 items selected

☑	Local Agent	Activation Status	Enrolled Printers	Version	Update Available
☑	✅ US-13BWT2	Activated	1	2.0.109.0	

  1 of 1 items selected   ‹ **1** ›

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Local Agent: Printer Details Page

New

- Click the IP address associated with Local Agent-enrolled printer will show detailed information about the printer.
  - Data shown is similar to that shown by the other agent types.
    - Not all data will be available.

Meters

Unit = Sides

Print

Total Print Count	596
Mono	178
Color	418

▼ Print Details

Two-sided	Not available
Tiered Coverage Billing	
Highlight color	149
Business color	165
Graphics color	104

Supplies

Supply	Type	Serial Num...	Capacity	Capacity U...	Percentage		Current Cov...	Lifetime Co...
Black	Toner	CAS1732801...	33000			67%		
Cyan	Toner	CAS1511266F1	30000			61%		
Magenta	Toner	CAN142620...	30000			90%		
Yellow	Toner	CAS142680...	15000			57%		
Black Photo...	Photocondu...	CAS1428859...	200000			84%		
Cyan Photo...	Photocondu...	CAS142865...	200000			90%		
Magenta P...	Photocondu...	CAS1428347...	200000			90%		
Yellow Phot...	Photocondu...	CAS142863...	200000			90%		
Fuser	Fuser	02M432701...	300000			32%		
Waste Tone...	Waste Toner	Not available	115000			100%		
Black Devel...	Other	CAS1428734...	150000			77%		
Cyan Devel...	Other	CAS1428653...	150000			86%		
Magenta D...	Other	CAS142834...	150000			85%		
Transfer Mo...	Other	4514273000...	300000			85%		
Yellow Deve...	Other	CAS1428637...	150000			86%		

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Lexmark Cloud Services Infrastructure

Lexmark Cloud Services Infrastructure: EU Hosts

EU Data Center Hosts

- If a firewall is used, these hosts must be included in the Allow List.
  - All hosts use port 443.

Function	Used by	Hosts for the EU Data Center
CFM	All customers	apis.iss.lexmark.com
CFM	All customers	iss.lexmark.com
Identity Provider	All customers	idp.eu.iss.lexmark.com
API	All customers	api.eu.iss.lexmark.com
APIS	All customers	apis.eu.iss.lexmark.com
CFM File Storage	All customers	prodwesteulexcloudk8s54.iss.lexmark.com
CCS	All customers	ccs.lexmark.com
CDN	All customers	ccs-cdn.lexmark.com
CFM	All customers	prod-westeu-lex-cloud-iot.azure-devices.net
CFM	All customers	prod-lex-cloud-iot.azure-devices.net
CFM	Native Agent only	global.azure-devices-provisioning.net
CPM File Storage	CPM only	prodwesteulexcloudk8s199.iss.lexmark.com
LPM	Legacy CPM only	lpm.eu.iss.lexmark.com

Lexmark Cloud Services Infrastructure: US Hosts

US Data Center Hosts

- If a firewall is used, these hosts must be included in the Allow List.
  - All hosts use port 443.

Function	Used by	Hosts for the US Data Center
CFM	All customers	apis.iss.lexmark.com
CFM	All customers	iss.lexmark.com
Identity Provider	All customers	idp.us.iss.lexmark.com
API	All customers	api.us.iss.lexmark.com
APIS	All customers	apis.us.iss.lexmark.com
CFM File Storage	All customers	prodlexcloudk8s239.iss.lexmark.com
CCS	All customers	ccs.lexmark.com
CDN	All customers	ccs-cdn.lexmark.com
CFM	All customers	prod-westeu-lex-cloud-iot.azure-devices.net
CFM	All customers	prod-lex-cloud-iot.azure-devices.net
CFM	Native Agent only	global.azure-devices-provisioning.net
CPM File Storage	CPM only	prodlexcloudk8s19.iss.lexmark.com
LPM	Legacy CPM only	lpm.us.iss.lexmark.com