



Mobile Direct

User's Guide

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Overview

Lexmark Mobile Direct is a Wi-Fi-based peer-to-peer technology that allows wireless devices to connect directly to a Lexmark printer or multifunction product (MFP) without the need for a wireless access point. For a list of mobile devices that have been tested using the application, see [“Recommended devices” on page 5](#).

Requirements

Lexmark Mobile Direct supports the following Lexmark devices:

- CX310/410/510 Series
- CS310/410/510 Series
- MX810 Series
- MS810 Series
- MX710 Series
- MS710 Series
- MS510/610 Series
- MS310/410 Series
- MX310/410/510 Series

Before using the application, make sure to:

- Install the MarkNet N8350 or N8352 wireless network adapter in your device. For more information, see the printer *User's Guide*.
- Update the firmware version of your device to P436 or later.

Recommended devices

Lexmark Mobile Direct has been tested with the following devices:

Mobile device	Android version
LG Nexus 4	4.4.2
Samsung Galaxy Note 3	4.3
Nexus 7 2012	4.2.2
HTC First	4.1.2
Google Galaxy Nexus	4.3
Samsung Mega	4.2.2
LG Nexus 5	4.4.2

Note: Other Android devices are yet to be tested for compatibility and may or may not work properly with Lexmark Mobile Direct.

Features

The following are some of the features that Lexmark Mobile Direct offers to users. The application:

- Supports up to eight simultaneous peer-to-peer client connections
- Provides configurable SSID for the peer-to-peer networking
- Allows a printer to remain connected to an Ethernet or wireless network while keeping connected clients isolated
- Has configurable panel behavior for accepting client connection requests for push-button mode
- Has user-configurable preshared keys for wireless security via WPA2

Note: For more information on how to configure each feature, see [“Configuration” on page 7](#).




Configuration

Enabling the application

Lexmark Mobile Direct is disabled by default. You can enable the application using the control panel or the Embedded Web Server. Make sure that a wireless adapter is installed in the printer.

Lexmark Mobile Direct functions even if the printer is not connected to an existing network.

Using the control panel

- 1 Depending on your printer model, navigate to one of the following:
 -  > **Settings** > **Network/Ports** > **Standard Network** or **Network [x]** > **STD NET Setup** or **Network [x] Setup** > **Lexmark Mobile Direct** > **Enable Lexmark Mobile Direct**
 -  > **Network/Ports** > **Standard Network** or **Network [x]** > **STD NET Setup** or **Network [x] Setup** > **Lexmark Mobile Direct** > **Enable Lexmark Mobile Direct**
 -  > **Network/Ports** > **Standard Network** or **Network [x]** > **STD NET Setup** or **Network [x] Setup** > **Lexmark Mobile Direct** > **Enable Lexmark Mobile Direct**
- 2 Select **Yes**, and then go back to the home screen.

Using the Embedded Web Server




- 1 Open a Web browser, and then type the printer IP address in the address field.
- 2 Click **Settings** > **Network/Ports** > **Lexmark Mobile Direct**.
- 3 Select **Enable Lexmark Mobile Direct**, and then apply the changes.

Configuring the application

Once enabled, Lexmark Mobile Direct uses a set of pre-configured default settings. You can modify these settings using the printer control panel or the Embedded Web Server.

Using the control panel

Depending on your printer model, navigate to one of the following:

-  > **Settings** > **Network/Ports** > **Standard Network** or **Network [x]** > **STD NET Setup** or **Network [x] Setup** > **Lexmark Mobile Direct**
-  > **Network/Ports** > **Standard Network** or **Network [x]** > **STD NET Setup** or **Network [x] Setup** > **Lexmark Mobile Direct**
-  > **Network/Ports** > **Standard Network** or **Network [x]** > **STD NET Setup** or **Network [x] Setup** > **Lexmark Mobile Direct**

Using the Embedded Web Server

- 1 Open a Web browser, and then type the printer IP address in the address field.
- 2 Click **Settings > Network/Ports > Lexmark Mobile Direct**.

Configuration options and their descriptions

Menu	Description
SSID	This is broadcast by Lexmark Mobile Direct for identification. It defaults to the model name plus eight characters of the Lexmark Mobile Direct MAC address (for example, "Lexmark MS811-2293c200"). When this SSID is broadcast, the string "DIRECT-xy" (where xy are two random characters) will be prepended to it. For more information on how this appears on various mobile devices, see "Connection" on page 11 .
IP Address	This allows the user to configure the IP Address that the Lexmark Mobile Direct interface will use. There are five addresses available to choose from the drop-down box.
Preferred Channel Number	This is the wireless channel that Lexmark Mobile Direct will attempt to use. If the wireless adapter in the printer is already connected to a wireless network, then the Lexmark Mobile Direct channel number matches the channel of the existing wireless network and this selection is automatically made and cannot be changed. Otherwise, the desired channel number can be selected from the drop-down menu.
Max Clients	This specifies the number of peer-to-peer clients (from 1 to 8) that can be connected to Lexmark Mobile Direct at one time. Once the maximum number of clients is reached, the next client to connect will be rejected. Previously connected clients must disconnect before further clients are allowed to connect.

Menu	Description
<p>Panel Behavior For Push Button Requests</p> <ul style="list-style-type: none"> Show Prompt for Push Button Requests Automatically Accept Push Button Requests and Show Panel Message Automatically Accept Push Button Requests and Do Not Show Panel Message 	<p>This specifies whether the printer automatically accepts any push button request and whether to display a panel message whenever a client attempts to connect. For more information, see “Usage” on page 12.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Show Prompt for Push Button Requests is the factory default setting. The connection request must be confirmed in order to connect to the device. If this setting is selected, then make sure to wake the printer from Sleep mode before attempting a Lexmark Mobile Direct connection. • Setting the printer to automatically accept push button requests may expose it from any unwanted connections. • You can still establish a Lexmark Mobile Direct connection to a printer that is set to automatically accept push button requests even if it is in Sleep mode.
<p>Display Key on Network Setup Page</p>	<p>This specifies whether to print the preshared key in plain text on the Network Setup Page report. This key is used by wireless clients that do not support peer-to-peer connections so that they may connect via “Legacy” mode, see “Connection” on page 11.</p>
<p>Set Preshared Key</p>	<p>This allows entry of the preshared key to be used for negotiating the wireless security for the peer-to-peer connection. The default key is a randomly generated, case-sensitive 15-character string from the set of a–z, A–Z, 0–9, and !@#\$%^&* ().</p>

Printing information pages




Several reports are available to provide current Lexmark Mobile Direct settings and status.

Print Server Setup Page

This report contains all the Lexmark Mobile Direct settings, including the preshared key if the Set the PreShared Key setting is enabled.

Using the control panel

Depending on your printer model, navigate to one of the following:

-  > Reports > Network Setup Page or Network 1 Setup Page
-  > Reports > Network Setup Page or Network 1 Setup Page
-  > Reports > Network Setup Page or Network 1 Setup Page

Using the Embedded Web Server

- 1 Open a Web browser, and then type the IP address in the address field.
- 2 Select **Reports > Print Server Setup Page**.

Lexmark Mobile Direct Connected Clients

This report contains a list of clients who are currently connected to Lexmark Mobile Direct.

- 1 Open a Web browser, and then type the IP address in the address field.
- 2 Select **Reports > Lexmark Mobile Direct Connected Clients**.

Security Audit Log

This report contains records of clients who connect to or disconnect from Lexmark Mobile Direct.

- 1 Open a Web browser, and then type the IP address in the address field.
- 2 Select **Settings > Security > Security Audit Log**.

Note: From this page, the Security Audit Log can be configured and exported.

Connection

Android devices

Many Android devices have built-in support for peer-to-peer connections, but the configuration and use of this built-in support varies based on the manufacturer and the Android version. Any device running Android 4.0 or later should have support.

- 1 From the Android device, navigate to:

Settings > Wi-Fi > Wi-Fi Direct

Note: A list of available peer-to-peer devices appears on the screen.

- 2 Select the Lexmark device that you want to connect to by looking for the appropriate SSID.

Notes:

- You may need to confirm the connection in the control panel depending on how the Panel Behavior for Push Button Requests is configured.
- Most Android devices remember this connection, so subsequent connections may not require the user approval in the control panel.

Windows devices

Note: Windows tablets running on Windows 8.1 may have built-in support for peer-to-peer connections.

To connect the tablet to Lexmark Mobile Direct, do the following:

- 1 Open the Windows control panel, and then select **View Devices and Printers > Add a Device**.
- 2 Select the Lexmark device.

Note: A prompt appears on the Lexmark device panel containing a PIN.

- 3 Enter the 8-digit PIN.

Note: If the print driver is not yet installed on your mobile device, then Windows automatically downloads it. Devices running Windows RT will default to the pre-installed Class driver.

iOS devices

These devices do not support Lexmark Mobile Direct, but can still connect to this peer-to-peer technology as long as there is support for Wi-Fi connection.

- 1 From your iOS device, select **Settings > Wi-Fi**.
- 2 Select the Lexmark device.

Note: The SSID is prepended with the string "DIRECT-xx," where xx is two random characters.

- 3 Type the preshared key, and then save the changes.

Note: Your iOS device automatically disconnects from any other wireless access point or cellular network. You can only print data stored in your device.

Other non-peer-to-peer devices

Other mobile devices that support wireless connection and WPA2 can also connect to Lexmark Mobile Direct. Point your device at the wireless SSID configured for your printer and then provide the preshared key, or connect via Wi-Fi Protected Setup. When you are finished, make sure to switch your mobile device back to its previous wireless network.

Usage

Once your mobile device is connected to Lexmark Mobile Direct, you can print or scan from it using a standard Ethernet or wireless network. Note that available functionality depends on the capabilities of the operating system and applications installed on your mobile device.

Notes:

- Some mobile devices retain their existing network connection. This allows users to browse any online content that they want to print while retaining the Lexmark Mobile Direct connection. Devices that do not support both connections simultaneously must have the content printed and available when the connection to Lexmark Mobile Device is established.
- There are mobile devices that can retain their existing network connection, but only if the Lexmark Mobile Direct connection is established on the same wireless channel. If this scenario is encountered, the Lexmark Mobile Direct connection may not be successfully established while the mobile is connected to a wireless network. The channel used for Lexmark Mobile Direct can be adjusted using the Embedded Web Server or control panel. Alternately, one can temporarily disconnect the mobile device from the Wi-Fi network.
- If the printer is in Sleep mode and Show Prompt for Push Button Requests is selected in the Panel Behavior for Push Button Requests menu, then the Peer to Peer acknowledgment prompt is not displayed and accepted. In this case, the printer must not be in Sleep mode before connecting Lexmark Mobile Direct. If a Lexmark Mobile Direct connection wakes the printer from Sleep mode, then one of the Automatically Accept Push Button Requests options must be selected in the Panel Behavior for Push Button Requests menu.

Security

Lexmark Mobile Direct has the following security features:

Use	To
Enable/Disable	Enable or disable Lexmark Mobile Direct. Note: Disable is the factory default setting.
Wi-Fi Protected Setup	Protect the Lexmark Mobile Direct connection with Wi-Fi Protected Access 2 (WPA2) security protocol using user definable preshared keys.
Connection Accept/Deny	Prevent access to anyone who does not have physical access to the printer.
Configurable Maximum Connected Clients	Set the number of concurrently connected mobile clients between 1–8 to limit the amount of bandwidth usage.
Connected Client Reports	Display all of the currently connected mobile devices, including their MAC addresses and host names.
Audit Logging	Track the connections, disconnections, and settings changes that are made.
Function Access Controls	Configure the level of security of the Lexmark Mobile Direct connection identical to all existing Lexmark function access controls.
Network Isolation	Isolate the Lexmark Mobile Direct interface from the existing Ethernet or wireless network interface. Mobile devices connected to the printer using Lexmark Mobile Direct cannot access other networks.

Notices

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