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# Revision History

Changes to the original manual are listed below:

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<thead>
<tr>
<th>Change</th>
<th>Date</th>
<th>Description</th>
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<tr>
<td>-01 Rev A</td>
<td>9/2019</td>
<td>Initial release</td>
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Introduction

This guide provides information about the licensing model and the licensing mechanism used in FX Connect (a feature available for FX7500 and FX9600 RFID readers).

NOTE Screens and windows pictured in this guide are samples and may differ from actual screens.

Notational Conventions

The following conventions are used in this document:

- “RFID reader”, “reader”, or “FX Series” refers to the Zebra FX7500 and/or FX9600 RFID readers.
- Bullets (•) indicate:
  - Action items
  - Lists of alternatives
  - Lists of required steps that are not necessarily sequential.
- Sequential lists (e.g., those that describe step-by-step procedures) appear as numbered lists.

Related Documents and Software

The following documents provide more information about the reader.

- FX Series Reader Software Interface Control Guide, p/n 72E-131718-xx. Describes Low Level Reader Protocol (LLRP) and Reader Management (RM) extensions for the reader.
- RFID3 API
- EPCglobal Low Level Reader Protocol (LLRP) Standard

For the latest version of these guides and software, visit: www.zebra.com/support.
Service Information

If you have a problem using the equipment, contact your facility's technical or systems support. If there is a problem with the equipment, they will contact the Zebra Global Customer Support Center at: www.zebra.com/support.

When contacting Zebra support, please have the following information available:

- Serial number of the unit
- Model number or product name
- Software type and version number.

Zebra responds to calls by e-mail, telephone or fax within the time limits set forth in support agreements.

If your problem cannot be solved by Zebra support, you may need to return your equipment for servicing and will be given specific directions. Zebra is not responsible for any damages incurred during shipment if the approved shipping container is not used. Shipping the units improperly can possibly void the warranty.

If you purchased your business product from a Zebra business partner, contact that business partner for support.
Introduction

This chapter describes, in detail, the licensing model and the licensing mechanism used in FX Connect (a feature available for FX7500 and FX9600 RFID readers). The following areas are discussed:

- The three different modes to acquire a license.
- How to return licenses.
- Setup and administration of the license server.

FX Connect Licensing Model

FX Connect features require a valid license installed in the reader. The FX Connect license purchased from Zebra determines the number of FX7500/FX9600 readers that can use FX Connect features. Only those readers that successfully acquire a license from the license server can read tags and output the RFID tag data to the designated output option on the FX Connect web page. There is also an option to acquire evaluation/trial licenses. The following sections explain where and how to procure the license. When you acquire the license, the user receives an Activation ID which is used to activate the license on the readers.

Acquiring Licenses

Trial and permanent licenses can be ordered from the Zebra ordering portal. For urgent trial version orders, contact the FX Series product manager or your local sales representative. An entitlement email is sent when the order is processed.

Types of Licenses

There are two types of FX Connect licenses.

- FX Connect Evaluation License
- FX Connect Perpetual

FX Connect Evaluation License

The evaluation license is a time bound license, based on the procurement type, and can be valid for 30, 60 or 90 days. The license is de-activated when the trial ends. Upon expiration of the trial term, the user is required to purchase a renewal license or switch to a permanent license.
FX Connect Perpetual

FX Connect perpetual is a permanent License and is available for the life of the reader.

Enabling a License

To enable an FX Connect license, acquire the appropriate license type (evaluation or perpetual) and then login to the reader web interface to configure and activate the license.

FX Connect Licensing Mechanism

License Acquisition Modes

FX Connect supports acquiring a license in one of three ways:

- From a Cloud based server (default).
- From a Local License Server (LLS) - see page 10.
- From an off-line device - see page 12.

Acquiring FX Connect License from Cloud Based Server

With this method of license acquisition, the license server is hosted on the cloud and the FX reader contacts the cloud-based license server to acquire licenses. This is the default mode for purchasing FX Connect licenses. It involves minimal setup and configuration.

**IMPORTANT** With this method, the FX reader(s) must be connected to the Internet to acquire license(s) from the cloud server and start operations.

Copy and paste the following address of the cloud license server for FX Connect into a web browser.  
zebra-licensing.flexnetoperations.com/flexnet/deviceservices.

The value of the license_server_url field must be set to this address.

**NOTE** To circumvent a firewall while contacting the cloud-based license server, set up a proxy server. To do this, go to:  
Figure 1  License Acquisition Process From The Cloud

Managing the License
Select the License Manager UI page on the reader.

Figure 2  License Manager UI - Acquire License

1. **Operation Type:** Use the drop-down arrow and select Acquire.
2. **Offline:** Use the drop-down arrow and select False.
3. **Server URL:** The cloud server URL (https://zebra-licensing.flexnetoperations.com/flexnet/deviceservices) should display. This is the default and should not be modified.
4. **Activation ID:** Enter the appropriate ID. (This is the ID received when you purchase the license.)
5. Select **Activate**.

Upon successful completion of the operation, license information displays on the Available License page (see Available License Tab on page 13).

**Acquiring FX Connect License from Local License Server (LLS)**

With this license purchase method, the license server resides locally on the private network that is reachable from the reader(s). This method does not require Internet connectivity as license acquisition comes from local server connectivity.
The local server must be set up before installing the FX Connect license and it must be registered in the Zebra end user licensing portal. For details, go to: www.zebra.com/us/en/support-downloads/software-licensing.html, and select the Manuals link to download the Local License Server Administration Guide for Windows (part number, MN-003302-xx).

Figure 3 illustrates the process of license acquisition from a local license server.

**Figure 3  Local License Server Acquisition**

![Diagram of Local License Server Acquisition]

**Setting Up a Local License Server**

**NOTE** The following steps are described in detail in the Local License Server Administration Guide for Windows (part number, MN-003302-xx).

To setup a local license server:

1. Install the LLS.
2. Configure the LLS.
3. Login to the Zebra Licensing Portal and register the LLS.
4. Acquire a license(s) for the LLS (see Acquiring Licenses on page 8).
5. Input the LLS URL and Activation ID.
6. Activate the license.
7. The reader receives the license information, queries the LLS for the Activation ID, and acquires the license.

When all steps are complete, the FX reader must be set up to acquire licenses from the LLS. This is accomplished by changing the `license_server_url` field in HTML page file to the following http://<license_server_ip_or_hostname>:7070. The local license server by default listens on port 7070 which can be changed in the license server configuration. If a non-default port is configured in local license server, then be
sure to update the `license_server_url` field in the HTML page to the same value. The `license_activation_id` field must be updated to the appropriate value provided by Zebra.

**Acquiring an FX Connect License From an Off-line Device**

The FX Connect license can be activated on a standalone device. The FX7500/FX9600 readers do not require an Internet or Local Area Network. However, the user must download the Capability Response (License.bin file) from the Zebra Licensing Server. For details, go to: [www.zebra.com/us/en/support-downloads/software-licensing.html](http://www.zebra.com/us/en/support-downloads/software-licensing.html) and select the Manuals link to download the Software Licenses Portal For End Users Quick Reference Guide 2018.08 (part number, MN-123456-xx). Refer to the section Activating Licenses on an Off-line Device for a detailed explanation on downloading the Capability Response from the Zebra Licensing Server.

**Requirements To Download the Capability Response**

- **Device ID** - the unique identification number of the FX device on the Zebra Licensing Server. The Device ID must be in the following format:
  
  `<Model Name>_<Mac_Address>` i.e., FX9600_84_24_8D_EF_B2_BB
  
  where Model Name is the FX7500 or FX9600
  
  MAC/IEE address is a 12 digit number
  
  This information can be found on bottom of device.

  ![FX9600 Reader Label](image)

- **Activation ID** - the unique 32-bit alpha-numeric number shared to the user when the license is purchased. This number acts a key to enable the FX reader to activate the license. The Activation ID is in the following format:
  
  8c88-d0e7-9f3c-435b-968b-69a8-7f8e-a302

- **Downloading Capability Response** - the user must login to the Zebra Licensing Server. Refer to the link shared via e-mail when the license is purchased or go to: [https://zebra-licensing.flexnetoperations.com/flexnet/deviceservices](https://zebra-licensing.flexnetoperations.com/flexnet/deviceservices)

  ![NOTE](image)

  **NOTE** The email received upon license purchase includes all necessary login information. When using the link above, the Activation ID is your password.

  - Create the Device ID.
  - Map the Activation ID to the Device ID.
  - Click the Download Capability Response. The License.bin file is loaded into the download folder in the format below:
    
    `<Device ID>.bin file` i.e., FX9600_84_24_8D_EF_B2_BB.bin
Activating the License on the Device

License manager has two functions:

- Manages the license.
- Displays the available licenses.

Managing the License

Managing the license allows the user to upload the License.bin and acquire a license. Select the License Manager UI page on the reader. The following page displays.

**Figure 5** License Manager UI - Acquire License

1. **Operation Type**: Use the drop-down arrow and select Acquire.
2. **Offline**: Use the drop-down arrow and select True.
3. **Upload License**: Select **Choose File** and browse to find the FX9600_84_24_8D_EF_B2_BB.bin file.
4. Select **OK**.
5. Select **Activate**.

**NOTE** The Capability Response downloads from the server and is only valid for five calendar day. The license.bin file uploads to the reader and is processed and validated.

Available License Tab

The **Available License** page is populated when the license is processed and validated.

**Figure 6** Valid Licenses on the FX Connect Device

The following license attributes are displayed.

- License Index
- License Name
- License Version
- Expiry Date
- License Count
- Device Host ID
Figure 6 shows two valid licenses on the FX Connect device.

**NOTE** Both Perpetual and Evaluation licenses can be mapped to same Device ID.

**Returning a License**

**NOTE** The FX reader must be connected to Internet to return a license.

**IMPORTANT** If the user is unable to login to the reader web console (for example, if the reader becomes defective), go to: [https://www.zebra.com/us/en/about-zebra/contact-zebra/contact-tech-support.html](https://www.zebra.com/us/en/about-zebra/contact-zebra/contact-tech-support.html) for Zebra Technical Support. At that time, the Zebra licensing team releases the license from the cloud server. The reader requires reboot upon online releasing of the license.

The license acquired using the steps above can be returned to the cloud server. Click on the License Manager UI page on the FX7500 or FX9600 device. The following page displays.

**Figure 7** Return a License

1. **Operation Type**: Use the drop-down arrow and select Return.
2. **Offline**: Use the drop-down arrow and select False.
3. **Server URL**: The cloud server URL (https://zebra-licensing.flexnetoperations.com/flexnet/deviceservices) should display. This is the default and should not be modified.
4. **Activation ID**: Enter the appropriate ID. (This is the ID received when you purchase the license.)
5. **Select Release**.
6. Upon successful release and completion of this operation, the license is removed from the reader and the reader reboots. License information is also deleted from the Available License page and the message below displays.

**Figure 8** License
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