FX SERIES RFID FIXED READER

FX Series Licensing Management

User Guide

MN-003723-04EN Rev. A

FX SERIES LICENSING MANAGEMENT USER GUIDE

MN-003723-04EN

Revision A

September 2020

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Revision History

Changes to the original manual are listed below:

Change	Date	Description
-01 Rev A	9/2019	Initial release
-02EN Rev A	4/2020	Updated the guide following the FX Series Licensing Management section in MN000026A11EN.
-03EN Rev A	4/2020	Updated the Procuring Licenses section.
-04EN Rev A	9/2020	Added: - An important note at the FX Series Licensing Management introduction section. - A note in the Acquiring License from Production Server (ON-Line) section. - Licensing Error Logs. Updated the Troubleshooting section.

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ABOUT THIS GUIDE

Introduction

This guide provides information about the licensing model and the licensing mechanism used in the FX Connect and Network Connect features.

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 (for example, those that describe step-by-step procedures) appear as numbered lists.

Related Documents and Software

The following documents provide more information about the reader.

- FX7500 RFID Reader Quick Start Guide, p/n MN000070Axx
- FX9600 RFID Reader Quick Start Guide, p/n MN-003087-xx
- FX Series Reader Software Interface Control Guide (describes Low Level Reader Protocol (LLRP) and Reader Management (RM) extensions for the reader), p/n 72E-131718-xx.

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.

FX Series Licensing Management

Introduction

This chapter explains the licensing model and the licensing mechanism used in the FX Series RFID Readers. FX Connect and Network Connect are the licensed features on the FX Series Readers. Topics covered in this guide are as follows:

- License activation in the ON-Line and OFF-Line modes. See License Acquisition Modes on page 11.
- How to return licenses. See Returning a License on page 17.
- Setup and administration of the license server. See Setting Up and Managing the Local License Server on page 18.
- How to download capability response from the cloud server. See Downloading Capability Response from the Cloud Server on page 19.

See Troubleshooting for Licensing Errors on page 26 to troubleshoot errors related to licensing.

IMPORTANT: Prior to license acquisition, the FX Readers date and time must be correctly synchronized. See Time Tampering on page 10 for more details.

Clear the Chrome/FireFox browser cache after upgrading the current firmware version 3.0.35/3.1.12 to 3.6.28 or newer because the cache is not cleared automatically. The browser cache may cause issues to the web UI pages. You can also right-click on the web UI page, then select **Reload Frame** in the menu.

NOTE: The FX7500 does not support Network Connect. The FX9600 supports both FX Connect and Network Connect.

FX Series Licensing Model

FX Connect and Network Connect features require a valid license to be installed in the reader. The FX Connect and Network Connect licenses purchased from Zebra determine the number of FX7500/FX9600 readers that can use FX Connect and Network Connect features. Only the readers that successfully acquire a license from the license server can read tags and load the RFID tag data to the designated output. Users can request a trial license for a limited period only. The following sections explain the procedures to procure the license. After the license is procured, the user receives an Activation ID which is used to activate or return the license on the readers.

Procuring Licenses

For the customers, partners, and distributors that require a FX Series product license for FX Connect and Network Connect, request a trial license through your Account Manager.

Account Manager and Sales Engineers can request a trial license for FX Connect and Network Connect for customers, partners, or distributors via SFDC Forms.

Zebra Engineering can request a trial license for FX Connect and Network Connect via Service NOW.

Types of Licenses

NOTE: The FX7500 does not support Network Connect (EtherNet/IP).

There are four type of licenses for FX Readers:

- FX Connect Trial License
- FX Connect Perpetual License
- Network Connect (EtherNet/IP) Trial License
- Network Connect (EtherNet/IP) Perpetual License.

Trial License

The trial license is a time bound license. Based on the procurement type, it can be valid for 30, 60 or 90 days. When the trial period ends, the license is deactivated and the respective application is ceased from operations. Upon expiration of the trial term, the user is required to purchase a renewal license or switch to a permanent license.

Perpetual License

The perpetual license is a permanent license and is available for the life of the reader.

Enabling a License

To enable a license on a FX Reader, procure the appropriate license (trial or perpetual), then log in to the reader web interface to configure and activate the license.

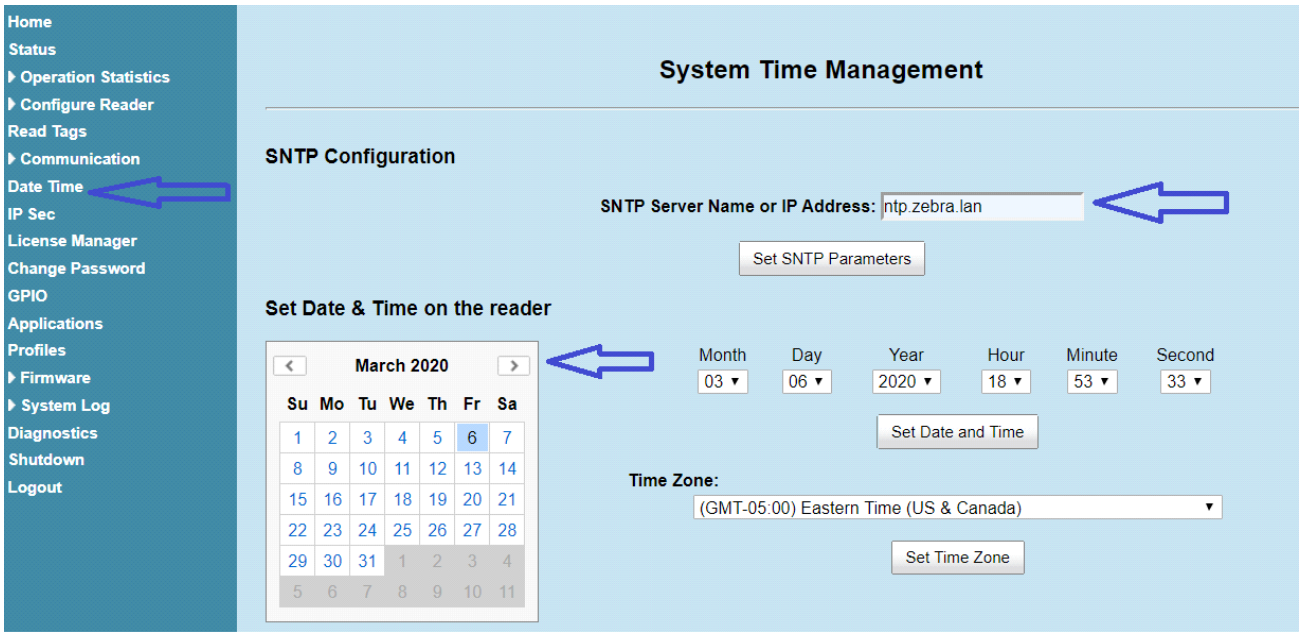
Time Tampering

License operations such as acquiring and returning licenses are time dependent operations. The FX Reader must be configured with the current date and time. Failing to do so results in errors when acquiring license and releasing licenses.

The reader time can be set automatically via the NTP server or configured manually in the **Date Time** windows (see Figure 1 on page 11).

NOTE: Clock Wind Back is enabled in the firmware. Any back tracing of date or time results in a license error.

Figure 1 System Time Management



FX Series Licensing Mechanism

License Acquisition Modes

A license for the FX Readers may be acquired in an **ON-Line** or **OFF-Line** mode.

There are three servers for the ON-Line mode, which are as follows:

NOTE: The On-Line mode license acquisition (from the Production, UAT, and Local License servers) requires an Internet connectivity.

- Production Server (ON-Line Mode). See Acquiring License from Production Server (ON-Line) on page 12.
- UAT Server (ON-Line Mode). See Acquiring License from UAT Server (ON-Line) on page 13.
- Local License Server (ON-Line Mode). See Acquiring License from Local License Server (ON-Line) on page 14.

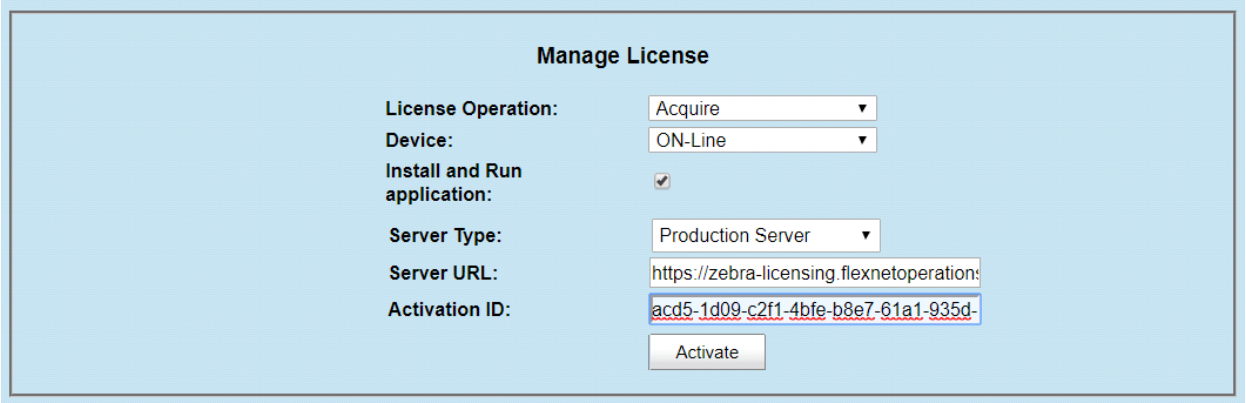
See Acquiring License by Downloading Bin File (OFF-Line) on page 15 to acquire licenses in the OFF-Line mode.

Acquiring License from Production Server (ON-Line)

This method is for the external customer. This is the default license acquisition with minimal setup and configuration. The FX Reader must have an Internet connection to acquire a license from the Production server. The license server is hosted on the cloud and the FX Reader contacts the cloud-based license server to acquire licenses.

NOTE: If the **Install and Run application** option is selected (see Figure 2) when you are installing the EtherNet/IP license, after the license is installed, the EtherNet/IP application forces a login to the FX Reader and the current web session is logged out. Log in again to use the web browser.

Figure 2 Manage License - Production Server



To acquire licenses from the Production server:

1. Select the appropriate options from the drop-down boxes as shown in Figure 2.

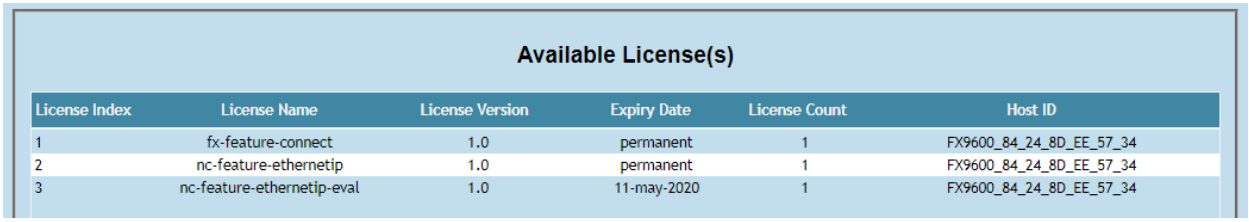
NOTE: The **Install and Run application** option allows you to install the EtherNet/IP package and starts the application. The EtherNet/IP package is built in the reader firmware. If the EtherNet/IP stack is already installed, uncheck the **Install and Run application** box.

2. Enter the 32-byte Activation ID that is provided via e-mail when the license is procured.

NOTE: To circumvent a firewall while contacting the cloud-based license server, set up a proxy server. For detailed instructions, go to: https://supportcommunity.zebra.com/s/article/ZSL-Licensing-Server-Connectivity?language=en_US.

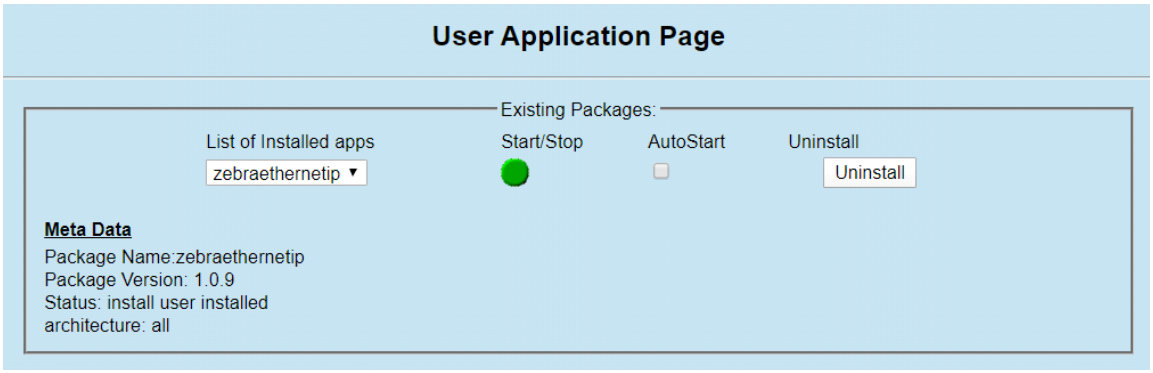
3. Click **Activate** to acquire the license. An Available License(s) list displays (see Figure 3) and includes the following information:
   - **License Index**: Lists the license number.
   - **License Name**: This is the feature name of license, such as fx-feature connect and nc-feature-ethernetip.
   - **License Version**: Lists the license version number.
   - **Expiry Date**: Expiration date for the trial license. For the Perpetual license, this field shows **permanent**.
   - **License Count**: Lists the number of license allocated to the FX Reader.
   - **Host ID**: A unique number for the license server to identify the device. This number has both model and mac number of device. The example shown in Figure 3 on page 13 is FX9600_84_24_8D_EE_57_34.

Figure 3 Available License - Production Server



4. Click **Application** on the selection menu. The **User Application Page** window shows the status and the progress of the package installation (see Figure 4).

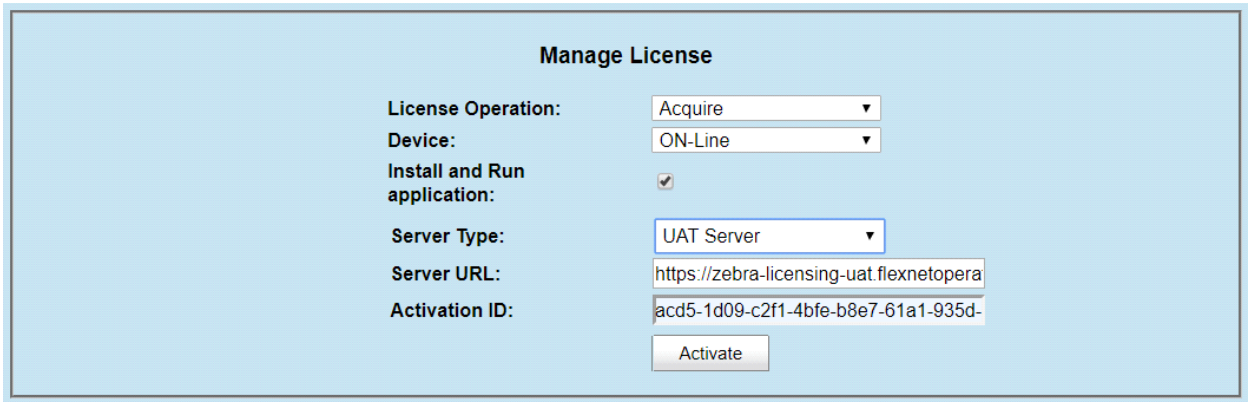
Figure 4 User Application Page



Acquiring License from UAT Server (ON-Line)

This method is for Zebra Engineering, such as Sales Engineers, Developers and Test Engineers. The FX Reader must be connected to the Internet. The license server is hosted on the cloud and the FX Reader contacts the UAT license server to acquire licenses.

Figure 5 Manage License - UAT Server



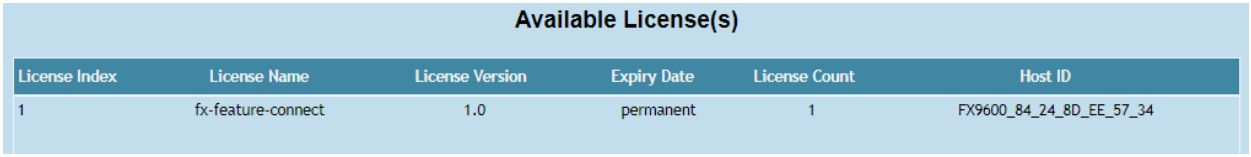
To acquire licenses from the UAT server:

1. Select the appropriate options from the drop-down boxes as shown in Figure 5.
2. Enter the 32-byte Activation ID that is provided via e-mail when the license is procured.

NOTE: The **Install and Run application** option allows you to install the EtherNet/IP package and starts the application. The EtherNet/IP package is built in the reader firmware. If the EtherNet/IP stack is already installed, uncheck the **Install and Run application** box.
If you are installing the FX Connect license, the firmware ignores the **Install and Run application** selection.

3. Click **Activate** to acquire the license. An Available License(s) list displays (see Figure 6).

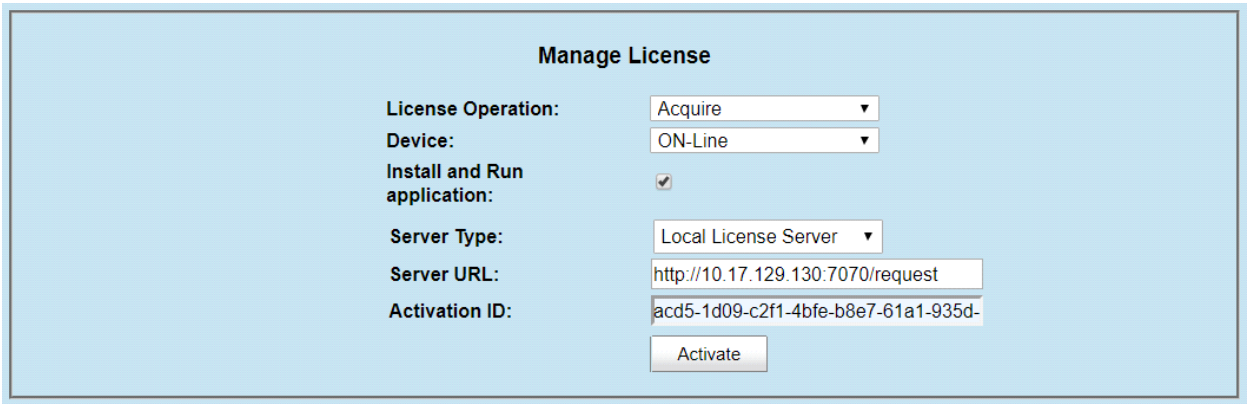
Figure 6 Available Page - UAT server



Acquiring License from Local License Server (ON-Line)

This license acquisition method is for both external customers and Zebra Engineering. To acquire the license from the Local License Server (LLS), setup a LLS within your LAN network (see Setting Up and Managing the Local License Server on page 18 for the detailed procedures) and the FX Reader contacts the Local License Server to acquire licenses.

Figure 7 Manage License - Local License Server



To acquire licenses from the LLS:

1. The LLS is available in the local LAN Network. If the LLS is not set up, see Setting Up and Managing the Local License Server on page 18.
2. Select the appropriate options from the drop-down boxes as shown in Figure 7.
3. In the **Server URL** field, enter the LLS link with the format **http://<Server_ip or host_name>:port_number/request.**

NOTE: A LLS link is required to acquire and release a license.

4. Enter the 32-byte **Activation ID** that is provided via e-mail when the license is procured.

NOTE: The **Install and Run application** option allows you to install the EtherNet/IP package and starts the application. The EtherNet/IP package is built in the reader firmware. If the EtherNet/IP stack is already installed, uncheck the **Install and Run application** box.

5. Click **Activate** to acquire the license. An Available License(s) list displays (see Figure 8).

Figure 8 Available License - Local License Server

Available License(s)

License Index	License Name	License Version	Expiry Date	License Count	Host ID
1	fx-feature-connect	1.0	permanent	1	FX9600_84_24_8D_EE_57_34

Acquiring License by Downloading Bin File (OFF-Line)

This method of acquiring license is also called the OFF-Line method. Use this method when the Internet connection is not available. The Capability Response must be downloaded from the server to acquire license with this method. See Downloading Capability Response from the Cloud Server on page 19 for more details.

Have the **Device ID** and the **Activation ID** before downloading the capability response.

Device ID

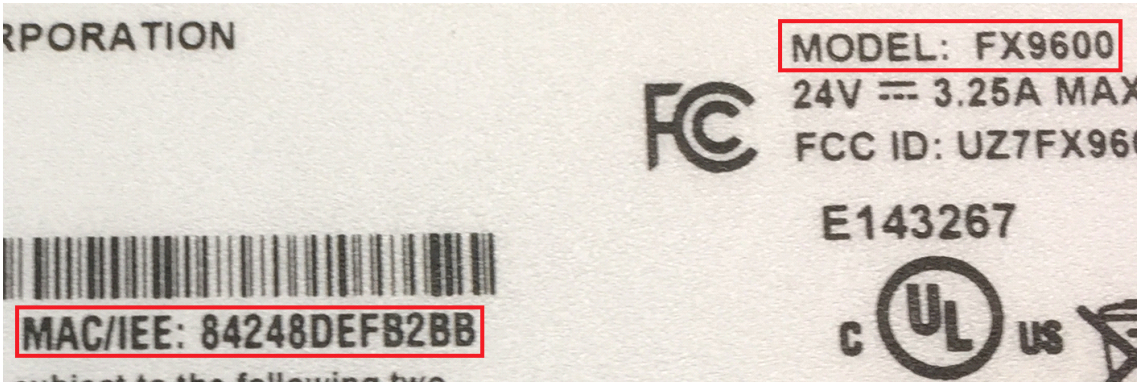
The Device ID is the unique identification number of the FX device on the Zebra Licensing Server. The Device ID must be in the format <Model Name>_<Mac_Address>.

For example, FX9600_84_24_8D_EF_B2_BB, where

- The Model Name is FX7500 or FX9600.
- The MAC/IEE address is a 12-digit number.

Look for the Model Name and the MAC/IEE address at the bottom of device.

Figure 9 Reader Label



Activation ID

The Activation ID is the unique 32-bit alpha-numeric number provided when the license is procured. This number acts as the key to enable the FX Reader to activate the license. An example of the Activation ID is **8c88-d0e7-9f3c-435b-968b-69a8-7f8e-a302**.

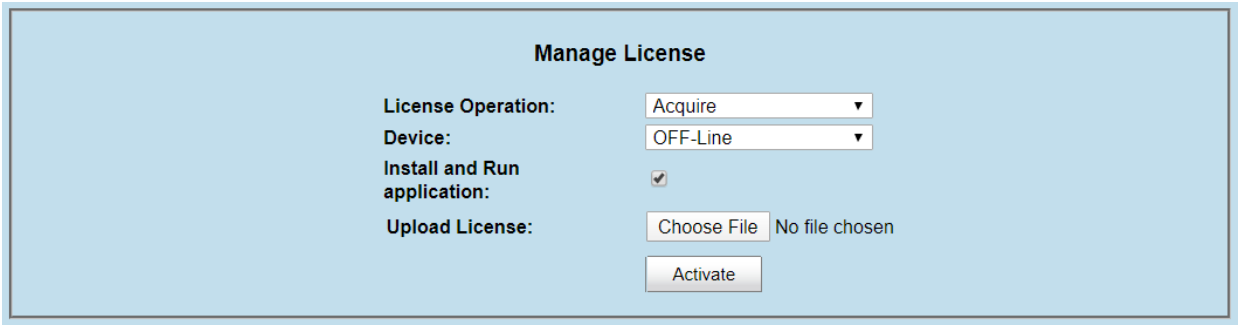
NOTE: For external customers, refer to the link shared via e-mail when the license is procured for credentials. For Zebra Engineering such as Sales Engineers, Developers, Test Engineers, go to https://zebra-licensing-uat.flexnetoperations.com/ for credentials.

To acquire the license in the OFF-Line mode:

1. Download the Capability Response (see Downloading Capability Response from the Cloud Server on page 19).
2. On the **Manage License** screen (see Figure 10):
   - Select the desired options from the License Operation and the Device drop-down menus.
   - Select the **Install and Run application** check box to install the EtherNet/IP package and start the application.

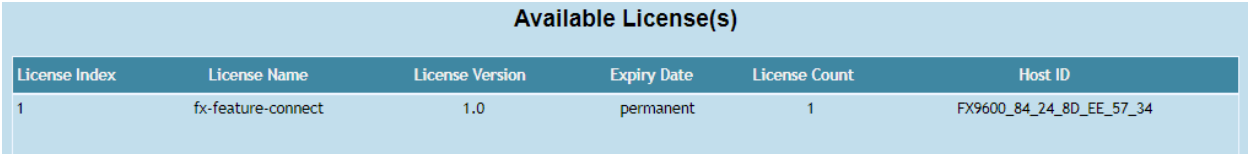
NOTE: The **Install and Run application** option allows you to install the EtherNet/IP package and starts the application. The EtherNet/IP package is built in the reader firmware. If the EtherNet/IP stack is already installed, uncheck the **Install and Run application** box.
Ignore the **Install and Run application** check box if you are installing the FX Connect licenses.

Figure 10 Manage License - OFF-Line Mode



3. Next to **Upload License,** click on **Choose File** and locate the bin file downloaded in Step 1.
4. Click **Activate** button to activate the license. An Available License(s) list displays (see Figure 11).

Figure 11 Available License - OFF-Line



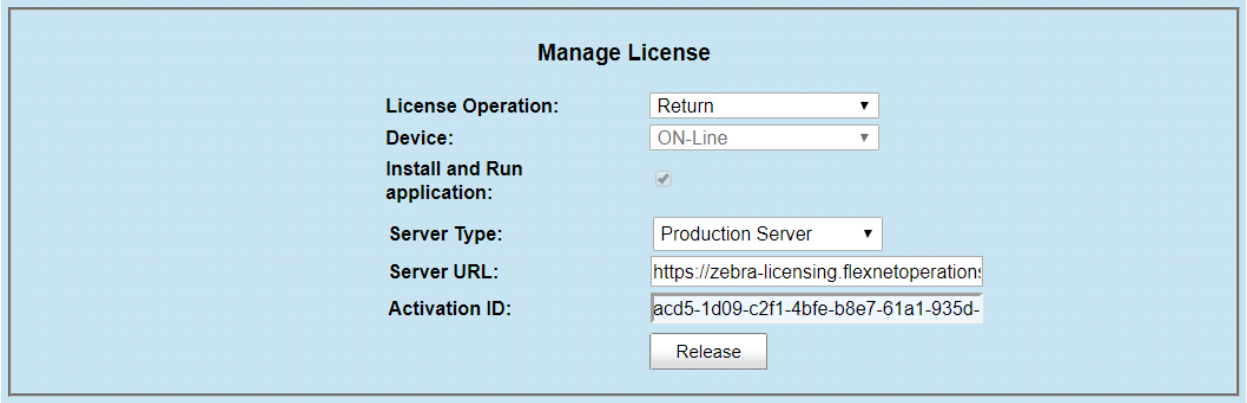
Returning a License

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

Users can return the acquired license to the cloud server only regardless of whether the license is acquired OFF-Line or ON-Line.

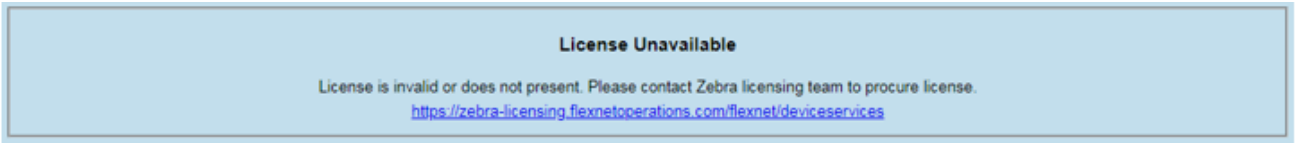
1. On the **Manage License** screen (see Figure 12), select the desired options from the License Operation and the Device drop-down menus.

Figure 12 Manage License - Return License



2. In the **Server Type** drop-down menu, select the server type from which the license is acquired.
3. For licenses acquired from the Local License Server, in **Server URL**, enter the LLS link with the format **http://<Server_ip or host_name>:port_number/request**.
4. Select **Release**. If there are no licenses available, a License Unavailable window displays (see Figure 13).

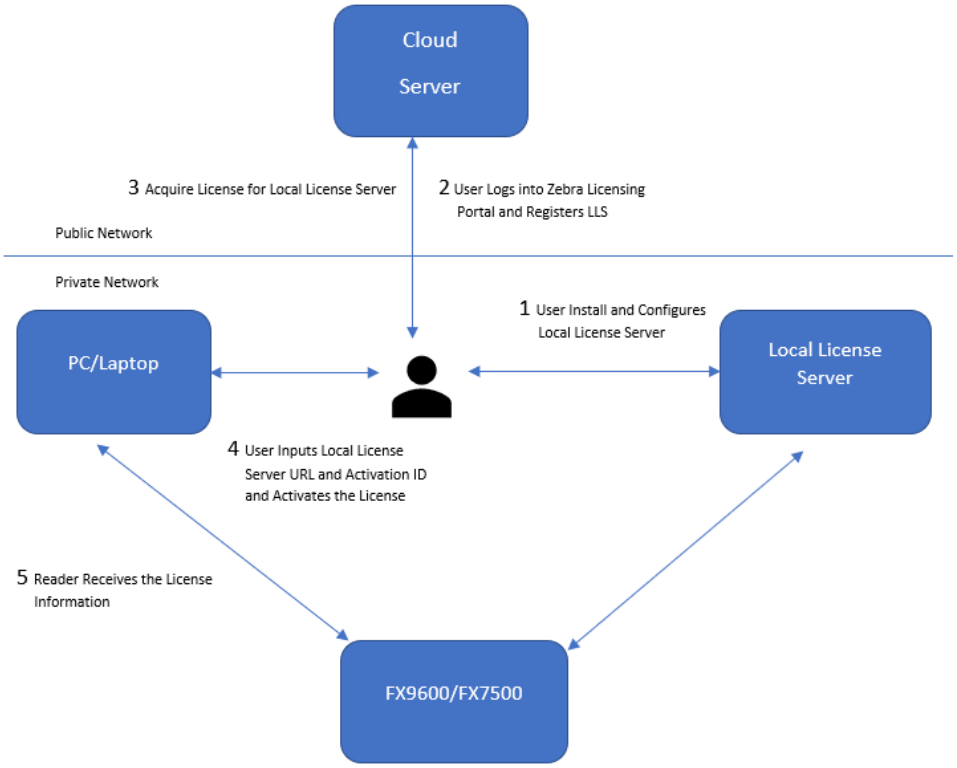
Figure 13 License Unavailable Screen



Setting Up and Managing the Local License Server

Figure 14 illustrates the process of license acquisition from a local license server (LLS).

Figure 14 Local License Server Acquisition



To setup the LLS within the LAN network:

NOTE: Refer to the Local License Server Administration Guide, p/n MN-003302-xx for detailed installation and registration instructions.

1. Install the LLS.
2. Configure the LLS.
3. Register the LLS.
4. Acquire licenses in the LLS.
5. Input the Activation ID to the reader.
6. The reader acquires the license from LLS.

Once the local license server is set up, set up the FX Reader to acquire licenses from the LLS by changing the **license_server_url** field in HTML page file to the URL with the format **http://<license_server_ip_or_hostname>:7070**. The LLS by default listens on port 7070 which can be changed in the license server configuration. If a non-default port is configured in the LLS, then ensure 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.

Downloading Capability Response from the Cloud Server

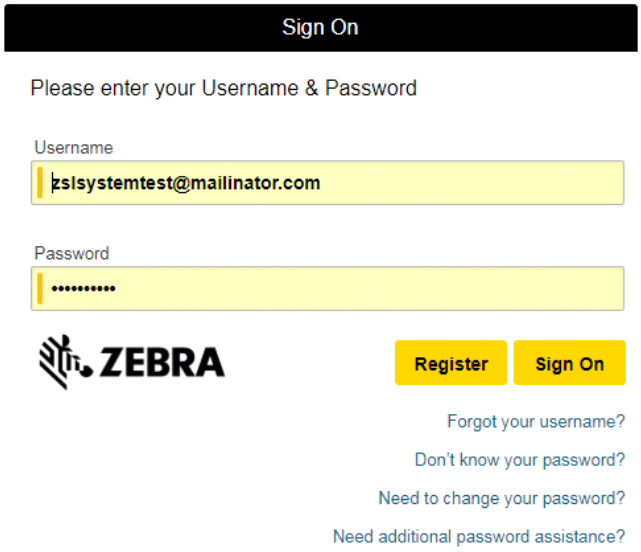
To download the Capability Response from the Cloud server:

1. Log in before entering the Zebra Licensing Server at https://zebra-licensing-uat.flexnetoperations.com/.

NOTE: External customers may need to use a different URL.

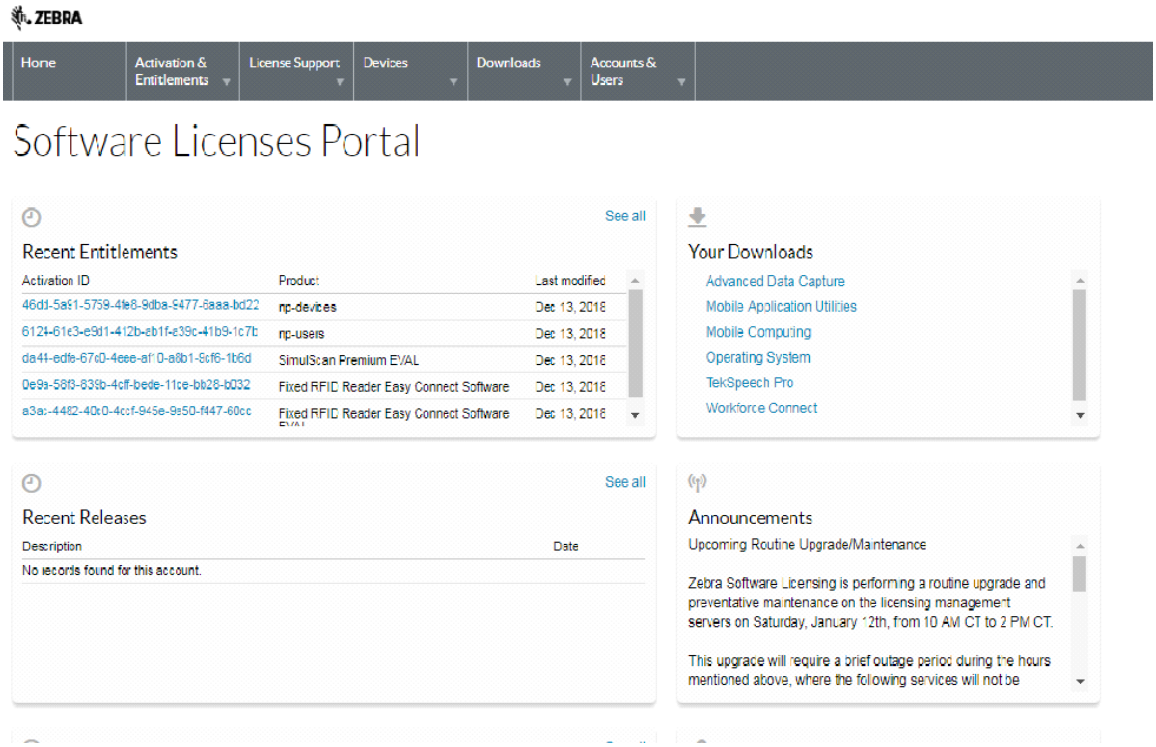
2. Enter the **Username** and **Password**.

Figure 15 Zebra Licensing Server Login Window



3. A **Home** screen displays (as shown in Figure 16).

Figure 16 Software Licenses Portal Home Screen

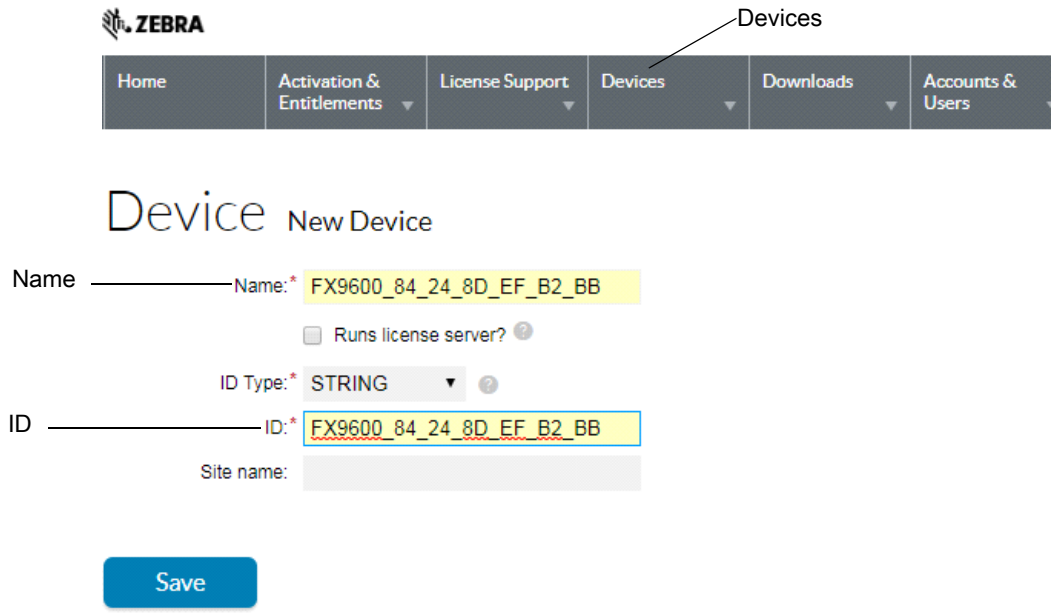


4. Select the **Devices** tab drop-down arrow to select **Create Device**. A **New Device** screen displays (see Figure 17 on page 21).

NOTE: FX9600_84_24_8D_EF_B2_BB in Figure 17 is an example.

5. On the **New Device** screen:
   - Enter the **ID** in the format **<Model Name>_<Mac_Address>** (see Device ID on page 15 for more details).
   - Enter the **Name** which is same as the **ID**. Do not select the **Runs license server** check box and leave **Site Name** as empty.

Figure 17 Create New Device Screen



6. Click **Save**. The page displays **Device created successfully** message when the device is successfully registered.

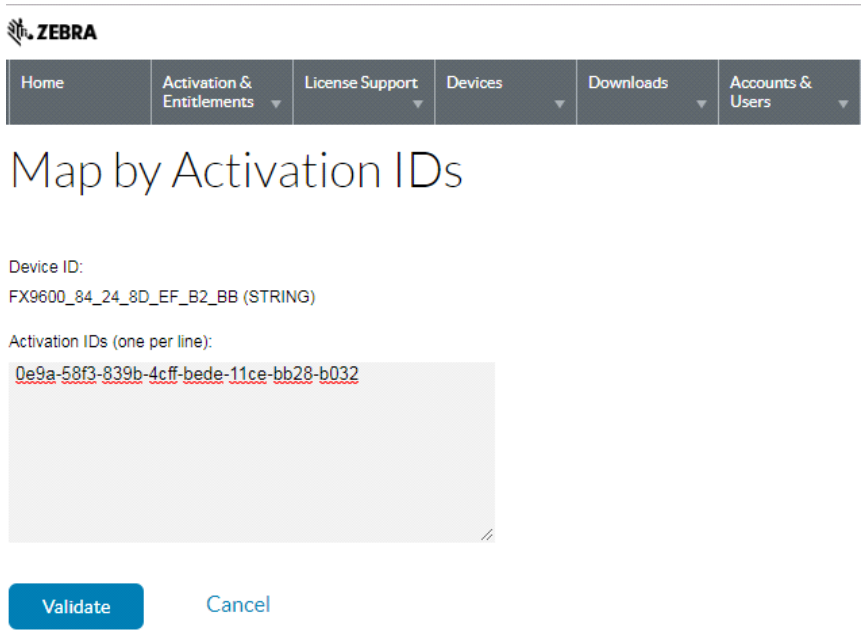
Figure 18 View Device Screen

7. Select **Action** to expand the drop-down list. Select **Map By Activation ID** (see Figure 19).

Figure 19 View Device Action Drop-Down Menus

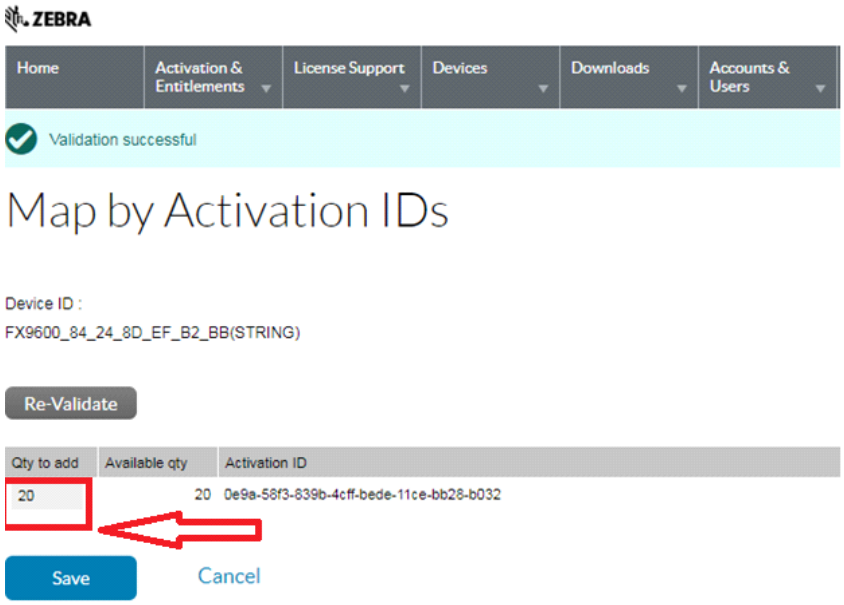
8. In the **Map by Activations IDs** screen, enter the Activation ID (see Figure 20). If you have multiple IDs, make sure to enter each ID on a new line.

Figure 20 Map by Activation IDs Screen



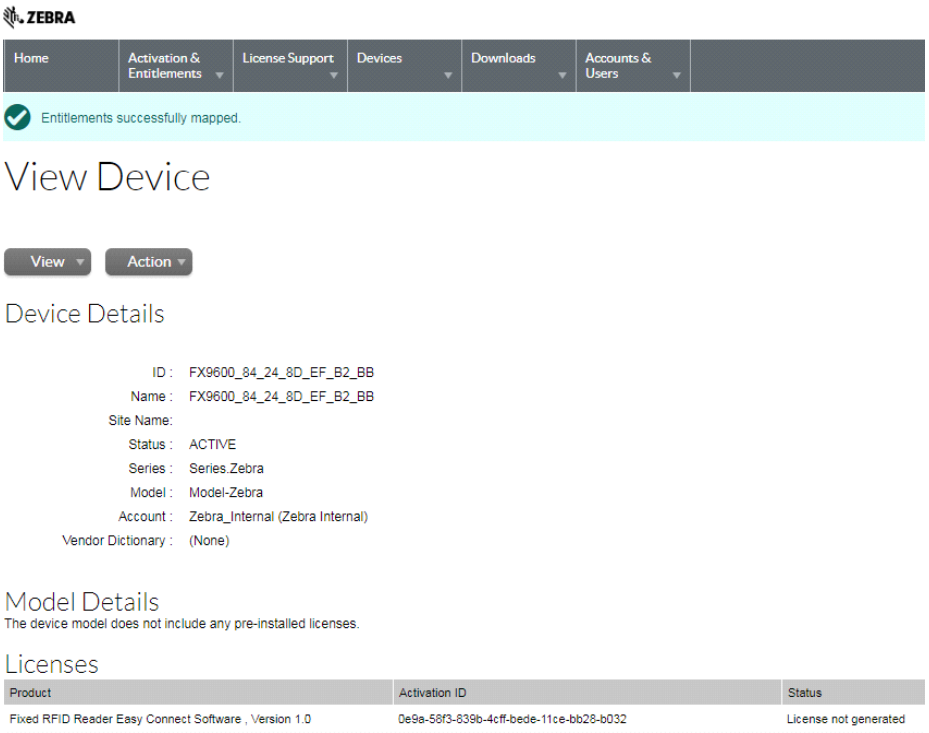
9. Click **Validate**. The page displays **Validation successful** message when the Activation ID is successfully validated.
10. Edit the **Qty to add** (see Figure 21) or all the licenses are mapped to a single device. For a standalone license, the value is 1. For LLS, a quantity is required.
11. Click **Save**.

Figure 21 Activation ID Validation Successful



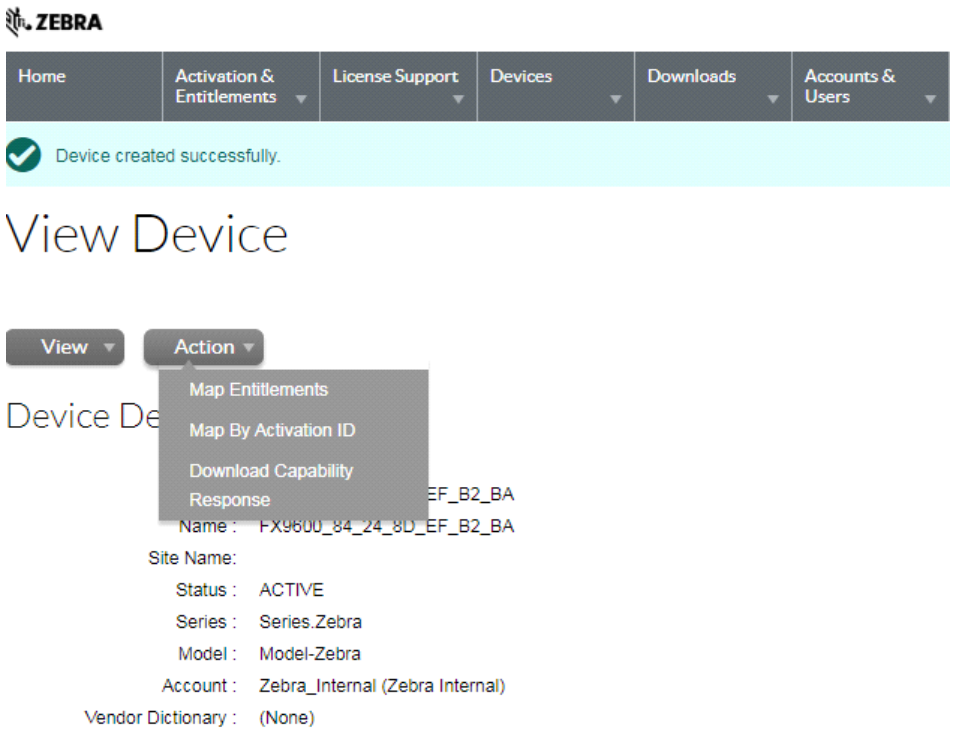
12. The page displays a **Entitlement successfully mapped** message (see Figure 22).

Figure 22 Device Entitlement Successfully Mapped



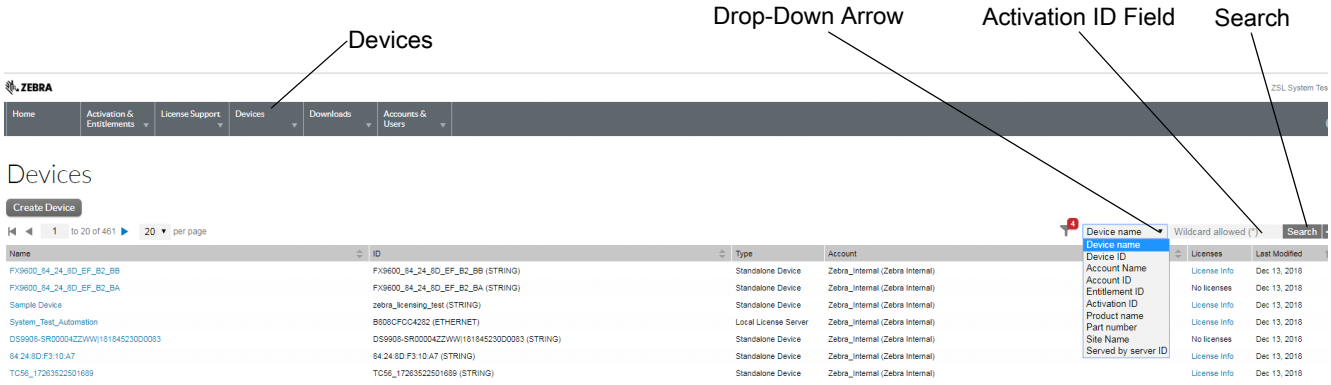
13. Click **Action** to expand the drop-down list (see Figure 23). Select **Download Capability Response**. The bin file is available in the Download folder.

Figure 23 View Device Action Drop-Down Menus



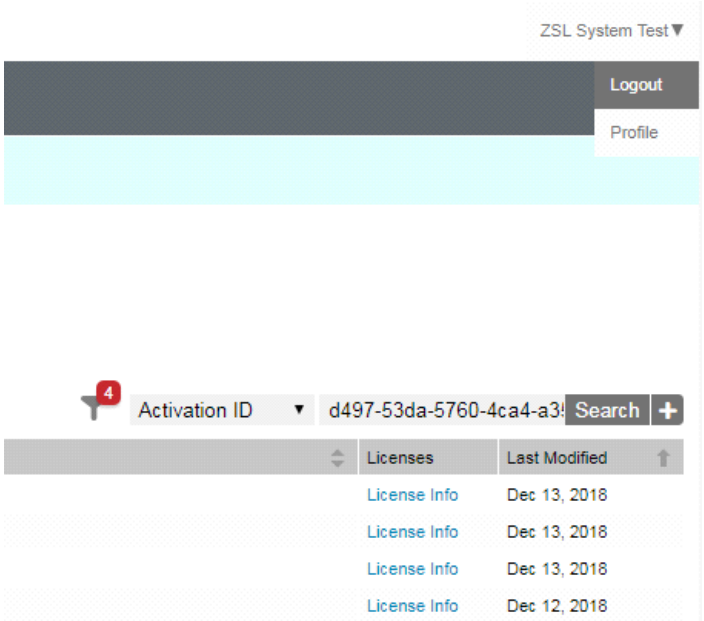
14. Click the **Devices** tab to enter Devices screen.
15. On the Devices screen (see Figure 24):
    a. Click the drop-down arrow next to the Filter icon to select **Device ID**.
    b. Enter the Activation ID next to **Search**.
    c. Click **Search** and the entitled devices are listed.

Figure 24 Device Screen



16. To log out, select **ZSL System Test > Logout**.

Figure 25 Log Out



Troubleshooting

Troubleshooting for Licensing Errors

Refer to the troubleshooting information related to licensing in Table 1 before contacting Zebra Customer Care for assistance.

Table 1 Troubleshooting for Licensing Errors

Problem/Error	Possible Causes	Possible Solutions
No license is displayed although the license activation is completed.	The reader is not synhronized to the current date and time.	Configure the reader date and time, then refresh the Manage License page. See Time Tampering on page 10.
Message **Please Input Activation ID.**	Activation ID is not provided.	Enter the Activation ID provided when the license is procured. See Activation ID on page 16.
Message **Please Input Server URL.**	Local License Server is selected as the server to acquire licenses, but the server URL is not provided.	Enter a valid LLS link with the format http://<Server_ip or host_name>:port_number/request. See Setting Up and Managing the Local License Server on page 18.
Message **Error:Application is running, cannot be installed again.**	Users activate new license(s) when the EtherNet/IP application is running on the reader.	Activate new license(s) when EtherNet/IP application is not running.
Message **Error:Application Install & Run Disabled.**	The license is activated without selecting the **Install and Run application** option.	The license is activated but the EtherNet/IP application is not installed. Manually install the EtherNet/IP via the application web page if you have a debian package. Return the license and install the license again. Select the **Install and Run application** option before activating the license.
Message **Error:Invalid Activation ID, Please provide valid activation ID for License Return.**	A different product license Activation ID is provided when users return the license(s).	Ensure the Activation ID is the ID provided when the license is procured.

Problem/Error	Possible Causes	Possible Solutions
Message **Error:Broken trusted storage, in license detected. Press Repair button to fix the issue and then acquire licenses again** on the License Manager window. Also, the window shows the **Repair** option in the License operation field. See Figure 26.	The license trusted storage is corrupted.	Click the **Repair** button to repair the trusted storage. Acquire the license again after the trusted storage is fixed.
Message **Error:Broken trusted storage, in license detected. Press Repair button to fix the issue and then acquire licenses again** on the License Manager window. See Figure 27.	The Web browser cache is not cleared.	Right-click on the web UI page, then select **Reload Frame** in the menu. See Figure 28 on page 28.
Message **Unable to upload license file.SyntaxError: Failed to execute 'open' on 'XMLHttpRequest':Invalid URL**. See Figure 29 on page 28.	The Web browser cache is not cleared which may cause issues to the web UI pages.	Clear the Chrome/FireFox browser cache after upgrading the current firmware version 3.0.35/3.1.12 to 3.6.28 or newer. Or, right-click on the web UI page, then select **Reload Frame** in the menu.
Message **Error:expected element not encountered**. See Figure 30 on page 28.	The Web browser cache is not cleared which may cause issues to the web UI pages.	Clear the Chrome/FireFox browser cache after upgrading the current firmware version 3.0.35/3.1.12 to 3.6.28 or newer. Or, right-click on the web UI page, then select **Reload Frame** in the menu.

Figure 26 Broken Trusted Storage Message and Repair

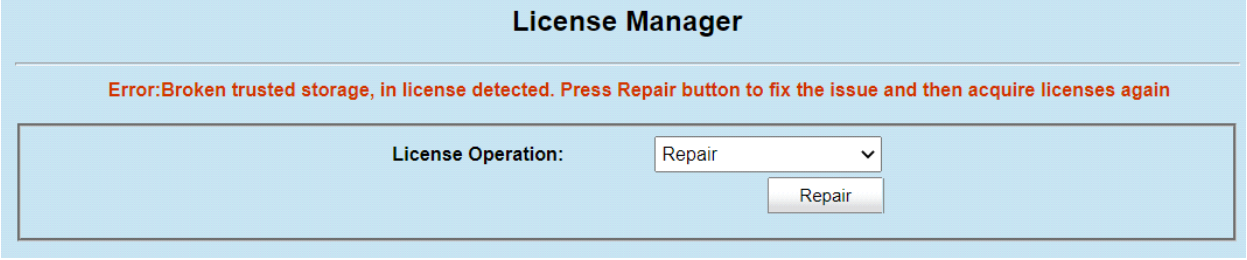


Figure 27 Broken Trusted Storage Message and Browser Cache

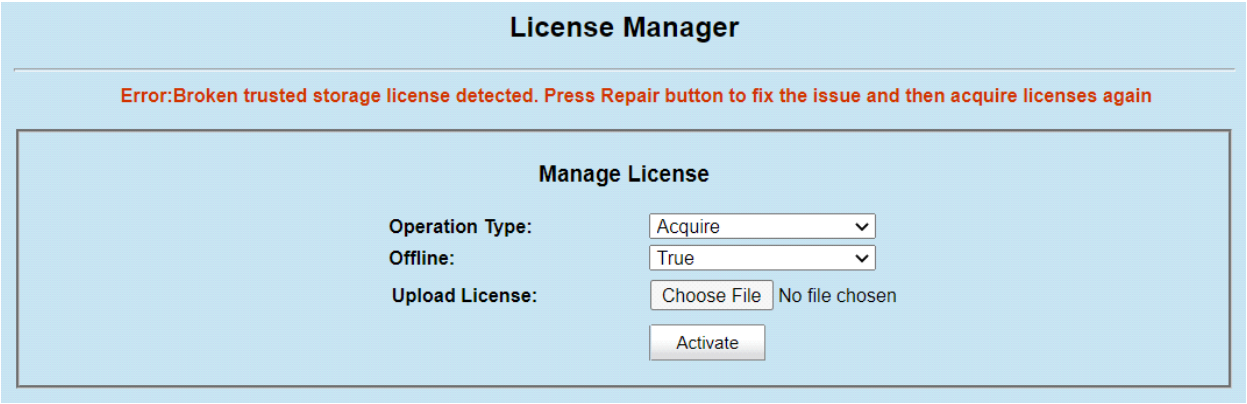


Figure 28 Reload Frame

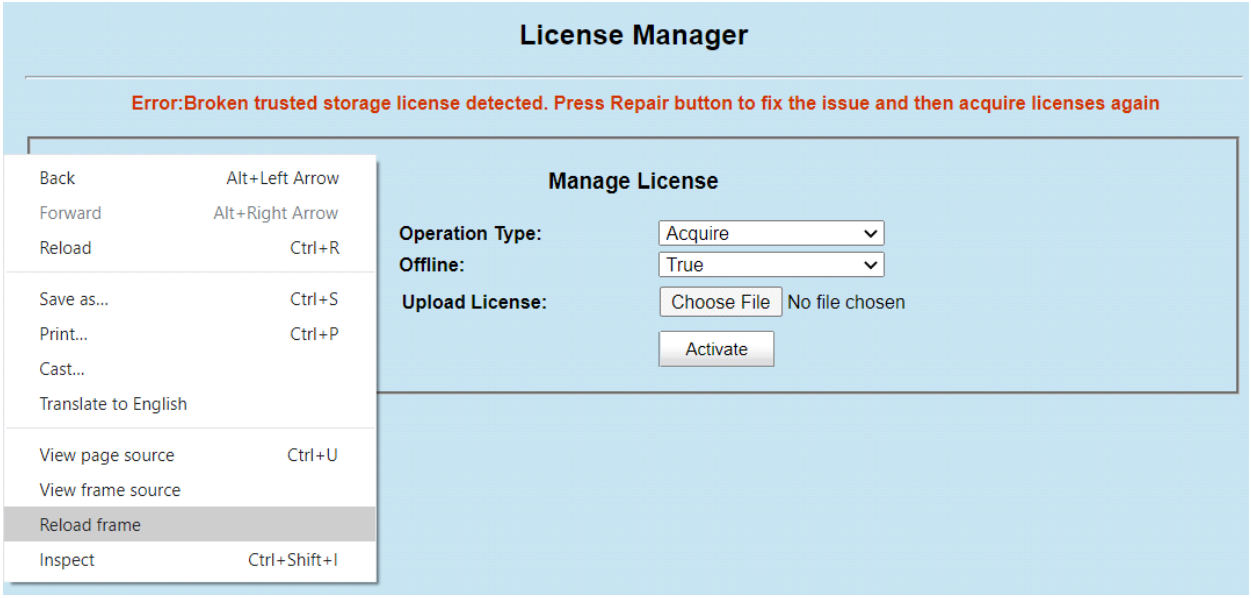


Figure 29 Invalid URL Error

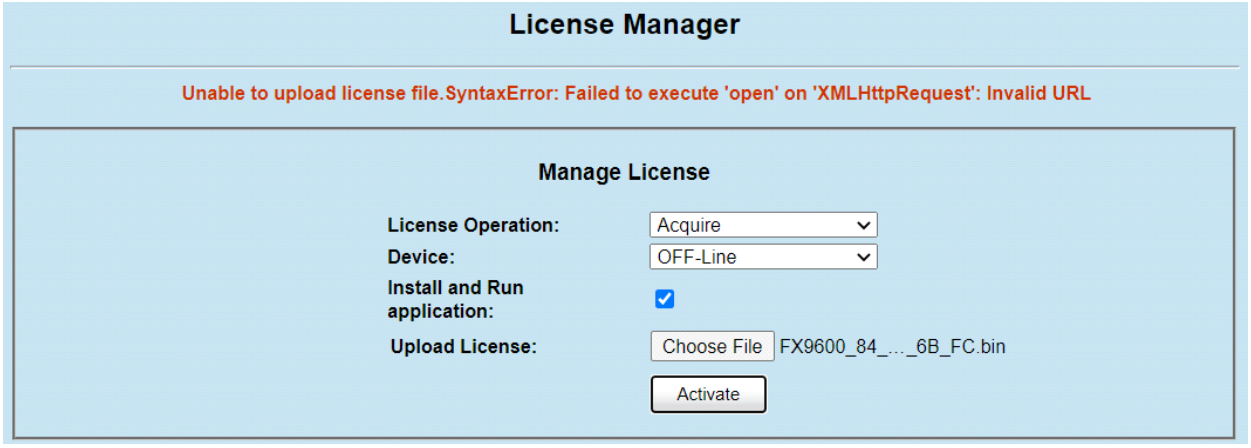
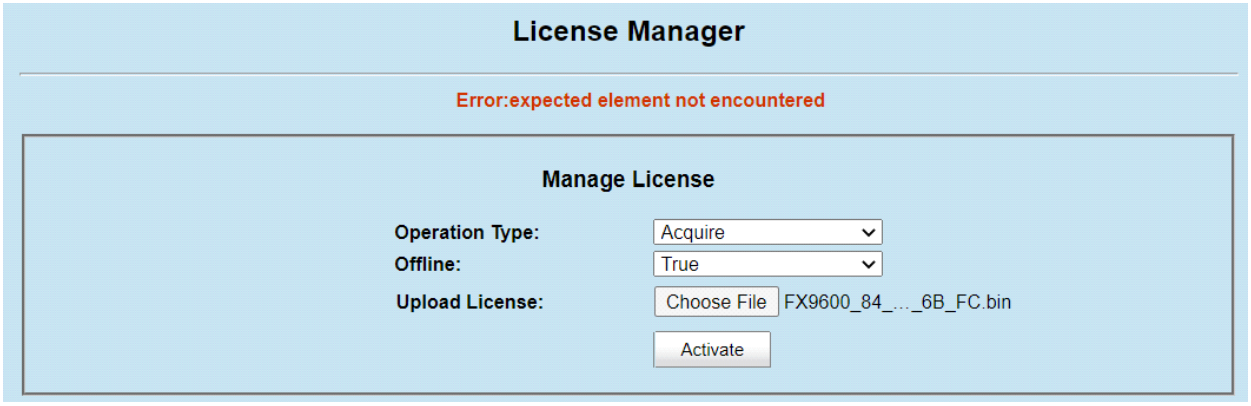


Figure 30 Expected Element Not Encountered Error

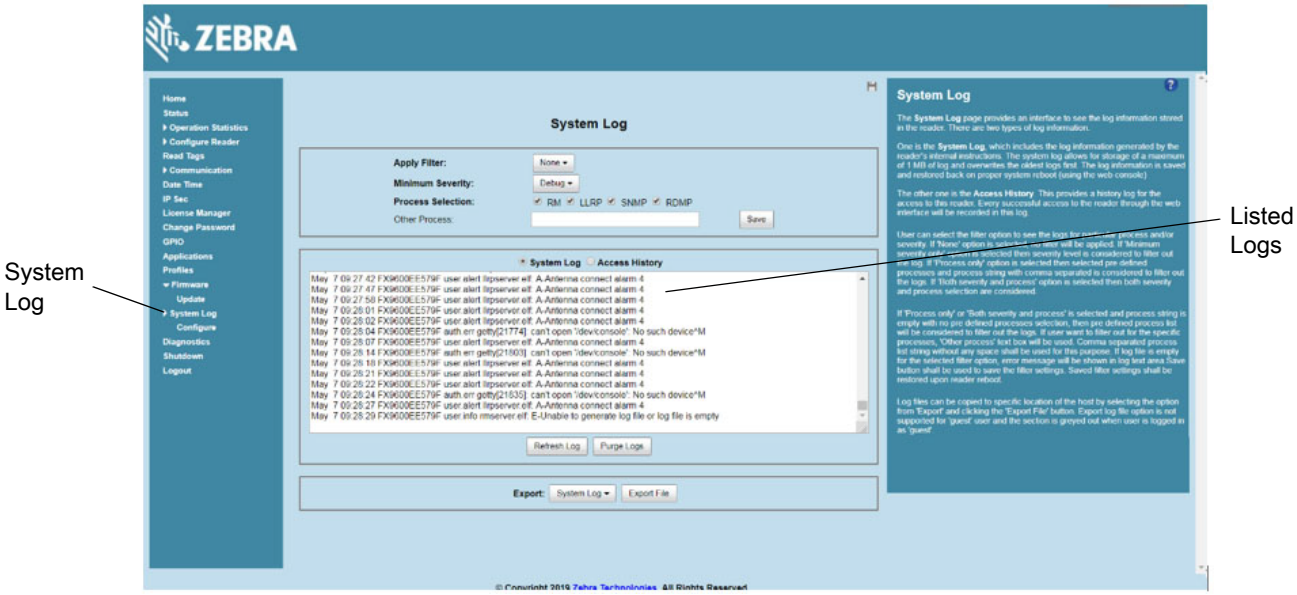


Licensing Error Logs

Licensing Error Logs

The reader's licensing error logs are listed in the **System Log** window (see Figure 31).

Figure 31 System Log Window



The licensing error logs in the System Log window display error codes. Refer to the code number in Table 2 for the error descriptions. The following shows an example of the error log:

```
July 13 13:18:43 FX7500F18F81 user.info rmserver.elf: I-RESPONSE STATUS RESPONSE STATUS:
CODE = 1, CAT = 1,  DETAIL = xxxx-1639-583c-40e2-9cd4-abc3-1a9d-xxxx
```

The code number in this example is 1. Code 1 in Table 2 indicates that one of the input parameters is bad. For this example, the Activation ID is incorrect.

Table 2 System Log Error Code Descriptions

Code	Error Code Message
0	Success.
1	One of the input parameters is bad.

Table 2 System Log Error Code Descriptions (Continued)

Code	Error Code Message
2	Provided buffer is not big enough to hold the data.
3	Callout failed but did not set error information.
4	Data corruption found.
5	Provided data exceeds maximum size allowed.
6	The size of provided data is incorrect.
7	Information for the date is invalid.
8	(No longer used.)
9	Requested feature has expired.
10	Requested feature's host ID does not match system host ID.
11	Requested feature is not found.
12	Start date for the requested feature is in the future.
13	Feature is issued by a different vendor.
14	Feature with the requested version is not found.
15	Type of the host ID is currently unsupported.
16	Version of identity is not supported.
17	Item already exists in the collection.
18	Provided item is not found in the collection.
19	Item's value has a different type than expected.
20	Provided index is out of bounds.
21	Key already exists in the collection.
22	Provided key is not found in the collection.
23	License not found in acquired list, possibly already returned.
24	License source type is invalid for operation.
25	(No longer used.)
26	The allowed time to process response has expired.
27	Response does not match system host ID.
28	Server is not able to process request correctly.
29	Response is out of order with previous responses.
30	Signature did not pass validation.
31	Inconsistent signature type used.
32	This trial is already loaded.

Table 2 System Log Error Code Descriptions (Continued)

Code	Error Code Message
33	Trial duration has expired.
34	Trial ID is invalid.
35	Storage anchor break found.
36	Storage binding break found.
37	Trusted storage is corrupted.
38	Trusted storage contains inconsistent data.
39	This version of trusted storage is not supported.
40	Storage implementation class provided is not complete.
41	Vendor keys have expired.
42	Vendor keys are invalid.
43	Vendor keys do not support this platform.
44	Identity data has changed; unable to decrypt trusted storage or anchor data.
45	Clock wind back is detected.
46	Clock wind back is disabled; unable to test if wind back has happened.
47	Data version is not supported.
48	Insufficient count for the requested feature.
49	Object cannot be modified because it is being used by another object.
50	Version string is invalid.
51	A signature signed with a revision of key which is not present in identity data.
52	Requested feature's server host ID does not match system host ID.
53	No server data found in TS. The Client probably never receives a capability response.
54	Regular update from the server is not needed as renew interval is set to 0 by the server.
55	Feature is node locked and cannot be served by the server.
56	Feature is a duplicate on the server and cannot be served.
57	Input type mismatch.
58	Failed to get a response from any of the servers.
59	New servers sent by the configuration server are not responding.
60	Required data is missing from capability response.
61	Capability response is not available - sync from the back office is not completed.
62	Identity is of different type than expected.
63	System machine type does not match expected machine type.

Table 2 System Log Error Code Descriptions (Continued)

Code	Error Code Message
64	Requested unique identifier is not found.
65	Callout error is set using an inappropriate error code.
66	Callout error is set using an inappropriate unit identifier.
67	Tolerance specifier version is not supported.
68	A non-client tolerance specifier is specified by the client.
69	A badly formed tolerance specifier is encountered.
70	A tolerance specifier is rejected as not valid for this client.
71	An unsupported tolerance specifier type is specified.
72	A bad tolerance specifier ratio is specified.
73	Information message can hold either existing or usage-based features, but not both.
74	Trusted storage host ID does not match system host ID.
75	Response UUID does not match system UUID.
76	Trusted storage does not exist.
77	The UUID in a message can originate from the back office or can be explicitly set, but not both.
78	Character set is invalid.
79	Short code license has expired.
80	Requested publisher data is not set.
81	Checksum segment length mismatch.
82	Short code scheme is not supported.
83	CRC validation of short code failed.
84	Request host ID does not match host ID recorded by server.
85	Checksum validation failed.
86	The host ID in an info message can originate from trusted storage or can be explicitly set, but not both.
87	Feature is metered and cannot be used in the buffer license source.
88	Unsupported certificate keyword.
89	Unknown certificate keyword.
90	Vendor dictionary can be requested as a whole, or by key; but not both.
91	Flag to include vendor dictionary is not set.
92	The specified capability request option conflicts with an option previously set.
93	Feature count exceeds the maximum supported value.
94	Features with an overdraft count are not supported on the client.

Table 2 System Log Error Code Descriptions (Continued)

Code	Error Code Message
95	Features with an overdraft count are not supported on the server.
96	Features with a metered license model are not supported on the server.
97	The same feature name cannot be used in both metered and concurrent license model.
98	Acquired feature uses a metered non-reusable license model and cannot be returned.
99	Metered features with the same name must have identical metered attributes.
100	Undo interval for the acquired feature has expired.
101	Metered functionality is not enabled.
102	A short-code license matching the specified license template ID cannot be found.
103	Capability response type is invalid for operation.
104	License source type and response type is incompatible.
105	License source contains a different server host ID from the response server host ID.
106	License source contains a different server instance than the capability request or response server instance.
107	Capability response contains a different server instance than the capability request.
108	Trusted storage already contains data from one of the capability response server host IDs stored in a different instance location.
109	The specified information message option conflicts with an option previously set.
110	Preview response cannot be processed into the license source.
111	Feature from a preview response cannot be acquired.
112	Server received a request of unknown type.
113	Required data is missing from capability request.
114	Vendor name in capability request does not match server vendor name.
115	No server records are found for the device.
116	Server signing key not found; can be caused by license server using client identity instead of client-server identity, or by corrupted identity data.
117	Required data is missing from information message.
118	Request type is invalid for operation.
119	Vendor name in information message does not match server vendor name.
120	Server is not a designated backup server.
121	Server maintenance interval is not set.
122	Server maintenance interval is not started.
123	Server maintenance interval has passed.

Table 2 System Log Error Code Descriptions (Continued)

Code	Error Code Message
124	Backup server is performing active fail-over support.
125	Information message is out of order with previous messages.
126	No detailed usage info.
127	Host ID that enabled server is not connected.
128	No reservations are found for the device.
129	Device is not served any features and does not have any reservations.
130	Required data is missing from the sync related message.
131	Vendor name in sync related message does not match server vendor name.
132	Identity name in sync related message does not match server identity name.
133	Target id in the sync related message is invalid.
134	Source id in the sync related message is invalid.
135	Time units mismatch in the sync related messages.
136	Desired feature is not available and cannot be served by the server.
137	Device is dropped from the server.
138	Device licenses have expired.
139	Device has returned all its licenses.
140	Sync time mismatch in the sync related messages.
141	Host ID in information message is invalid.
142	Host ID in capability request message is invalid.
143	Virtual clients are not supported.
144	Unexpected information message type received.
145	Usage based information message support is not enabled.
146	Collection of the sync data offline is not supported.
147	Offline sync to FNO cannot be performed due to other sync in progress.
148	The message UUID does not match the device record UUID.
149	Unable to parse malformed or incorrect XML version.
150	Error in converting Julian date.
151	An unsupported request operation is specified.
152	One-time activations are not supported.
153	Trusted storage cannot be reset with unsynchronized distribution data present.
154	Served buffer features cannot be returned early.

Table 2 System Log Error Code Descriptions (Continued)

Code	Error Code Message
155	Client cannot switch from use of served buffer to trusted storage and vice versa.
156	Overage detected on server. Update from back office could not be processed because the outstanding license count is greater than the updated count.
157	Internal license server error.
158	Request has invalid content.
159	Invalid desired-feature count specified.
160	Server is currently running in environment tolerance interval.
161	Server environment tolerance interval has expired.
162	Server is busy (such as updating license rights from the back office or processing reservations).
163	Client is not registered on the license server.