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1 – About This Document

This document describes the installation of the LXI 6.0 application on the installed Fifth Light Central Managers, or Virtual Central Manager and Local Controllers. It is intended for Eaton’s control specialist and certified Fifth Light System Integrators.

The material in this document assumes you are familiar with the Fifth Light Webmin application.

1.1 – Key Terms

The terms listed below are used in this document.

**Lighting Control System (LCS)** – A computer-based control system installed in a building to control and monitor lighting equipment such as controllers, ballasts, drivers, keypads, and sensors. An LCS consists of hardware and software.

**LXI** – Lighting Xpert Insight.

**CM** – A Central Manager on a lighting control network.

**VCM** – A Virtual Central Manager.

**LMS** – A Lighting Management System.

1.2 – Related Fifth Light Documentation

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting Xpert Insight 6.0 Quick Start Guide</td>
<td>This guide describes how to use LXI.</td>
</tr>
<tr>
<td>Fifth Light Webmin User Manual</td>
<td>This manual describes how to use Webmin.</td>
</tr>
<tr>
<td>LMS Upgrade Manual</td>
<td>This manual describes how to upgrade LMS.</td>
</tr>
</tbody>
</table>
2 – Requirements

Check the following prior to installing LXI on the Central Manager and Local Controllers:

- LMS version is 4.13 or higher (refer to the LMS Upgrade Manual for instruction on upgrading)
- The Fifth Light System is centralized (the Central Manager is used to make changes to the system)
- All local controllers have network properties (IP address, subnet mask, and default gateway) defined in the LMS, as configured in the System Setup tab, under the System Setup module (shown below).

![System Setup](image)

- All Fieldbus IO modules have an IP address (any modules with no IP address from the LMS configuration should be removed)
- You have access to the Central Manager Servers, or the Virtual Central Manager Servers and Local Controllers.
- You have downloaded the LXI-Microservices and LXI-Adapter RPM files needed to install LXI services on the CM/VCM Servers and Local Controllers

3 – Installation

The following sections contain the procedures required to install LXI on a single or dual server CM/VCM network:

3.1 – Installing LXI (Single Server CM/VCM)

Follow the steps below to install the LXI services on the Central Manager and Local Controllers.

**NOTE**

See *Installing the LXI (Dual Server CM/VCM)* for the instructions that apply to that configuration.

**Before You Begin**

To complete this procedure, you will need:
- The IP address of the Central Manager
- The LXI-Microservices RPM file
- The LXI-Adapter RPM file

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
</table>
| 1    | Using your Web browser (IE or Chrome), go to https://<ipaddress>:10000, using the IP address of the Central Manager.  
**EXAMPLE**  
https://10.130.66.12:10000 |
| 2    | What Web browser are you using?  
- If Chrome, click **Advanced**, and then click **Proceed to the address**.  
- If IE, click **Continue to this website (not recommended)** |
| 3    | Log in to Webmin as an administrator.  
**NOTE 1**  
- Default user name: admin  
- Default password: EatonServices#  
**NOTE 2**  
If you are logging in for the first time, you will need to change the default password. Be sure to record the new password you assign. |
<p>| 4    | Close the Update notice, and then close any other popup messages that appear. |</p>
<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Click <strong>System</strong> in the Webmin menu, and then click <strong>Software Packages</strong>.</td>
</tr>
</tbody>
</table>

**RESULT**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="software_packages.png" alt="Software Packages" /></td>
<td><img src="software_packages_result.png" alt="Software Packages" /></td>
</tr>
</tbody>
</table>

<p>| | |</p>
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</table>

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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="software_packages.png" alt="Software Packages" /></td>
<td><img src="software_packages_result.png" alt="Software Packages" /></td>
</tr>
</tbody>
</table>

6 In the **Install a New Package** section, and select **From uploaded file**.

7 Click 🗂️, then browse to LXI-Microservices RPM file you downloaded to a local or USB drive earlier. Select the file, and then click **Open** to upload it.

**RESULT**
8. **Click Install** to copy the files on the CM or VCM.

**Example**

![File uploading](image)

<table>
<thead>
<tr>
<th>Filename</th>
<th>li-x-miroservices-5.0-314.x86_64.rpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>65.98 MB of 313.60 MB</td>
</tr>
</tbody>
</table>

9. When the package has been copied and the screen below appears, **click Install**.

**Example**

![Install package](image)

**NOTE**

This process can take up to five minutes, and the browser indicate loading during this time.

10. The screen shown below will appear when the installation is successful. Click **Return to Module Index** at the bottom of the **Package Details** section to return to the previous page.

**Example**

![Package details](image)
Step | Action
--- | ---
11 | To install the LXI-Adapter RPM on the Local Controllers, click **Lighting Management System** in the Webmin menu, and then click **Tools**.

**EXAMPLE**

![Example Image](image_url)

**NOTE**

*This Step assumes the system has been centralized.*

12 | Scroll down to the **Install RPM on NUCs** section, then click ![Select RPM File](image_url) for the **RPM File**, and then browse to where the LXI-Adapter RPM file is located on your local or USB drive. Select the file, and then click **OK**.

**RESULT**

![Result Image](image_url)
Step | Action
--- | ---
13 | Click **Install RPM on NUCs**, and then monitor the installation progress.

**EXAMPLE**

![Uploading File - Internet Explorer](image1.png)

- **Filename**: C:\lx\lxm-5.0-314.x86_64.rpm
- **Size**: 32.19 MB of 37.86 MB
- **Progress**: 

14 | If you see **idle_in_transaction_session_timeout** and **row_security** errors, you can ignore them.

**EXAMPLE**

![Image of LXI manager](image2.png)

3.2 – **Installing LXI (Dual Server CM/VCM)**

For a Dual Server Central Manager system, you must install the LXI-Microservices RPM on the Application and the Database Servers, and install the LXI-Adapter RPM on the Database Server.

The Application Server and Database Server each require a corresponding profile. This involves setting up an application profile for LXI-Microservices installed on the Application Server, and a database profile for LXI-Microservices located on the Database Server.

3.2.1 – **Installing the LXI-Microservices RPM**

Follow the steps below to install the LXI-Microservices RPM on a Central Manager Application Server, and again on the Database Server.
Before You Begin

To complete this procedure, you will need:

- The IP address of the Central Manager Application Server
- The LXI-Microservices RPM file
- The LXI-Adapter RPM file

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
</table>
| 1    | Using your Web browser (IE or Chrome), go to https://<ipaddress>:10000, using the IP address of the Central Manager Application Server.  
**EXAMPLE**  
https://10.130.66.12:10000 |
| 2    | What Web browser are you using?  
- If Chrome, click Advanced, and then click Proceed to the address.  
- If IE, click Continue to this website (not recommended)  
**EXAMPLE** |
| 3    | Log in to Webmin as an administrator.  
**NOTE 1**  
- Default use name: admin  
- Default password: EatonServices#  
**NOTE 2**  
If you are logging in for the first time, you will need to change the default password. Be sure to record the new password you assign. |
| 4    | Close the Update notice, and then close any other popup messages that appear. |
5. **Click** System in the Webmin menu, and then click Software Packages.

**RESULT**

6. In the **Install a New Package** section, and select **From uploaded file**.

7. Click ![file icon], then browse to LXI-Microservices RPM file you downloaded to a local or USB drive earlier. Select the file, and then click **Open** to upload it.

**RESULT**
Step | Action
--- | ---
8 | Click **Install** to copy the files on the CM or VCM.

Example

<table>
<thead>
<tr>
<th>Filename</th>
<th>lx-microservices-5.0-314.x86_64.rpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>85.98 MB of 313.60 MB</td>
</tr>
<tr>
<td>Progress</td>
<td>[progress bar]</td>
</tr>
</tbody>
</table>

9 | When the package has been copied and the screen below appears, click **Install**.

**EXAMPLE**

**NOTE**

*This process can take up to five minutes, and the browser will display as loading during this time.*

10 | The screen shown below will appear when the installation is successful. Click **Return to Module Index** at the bottom of the **Package Details** section to return to the previous page.

**EXAMPLE**

3.2.2 – Configuring the Application Server

Follow the steps below, after the LXI-Microservices RPM has been installed on the Central Manager Application Server, to configure the application profile (Dual Server Central Manager only).
Before You Begin
To complete this procedure, you will need:

- The IP address of the Database Server being used by this Application Server

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Log into Webmin on the Central Manager Application Server, then click <strong>Lighting Management System</strong> in the Webmin menu, and then click <strong>LXI</strong>.</td>
</tr>
<tr>
<td>2</td>
<td>In the <strong>LXI Service Settings</strong> section, select <strong>Application Server</strong> in the <strong>Service Mode</strong> list.</td>
</tr>
<tr>
<td>3</td>
<td>Click <strong>LXI Services Settings</strong>.</td>
</tr>
</tbody>
</table>

**Example**

![Image of LXI Service Settings]

**Result**

![Image of Execute Command]

www.eaton.com/lightingsystems 11
4 Click **Return to Commands**, and then verify that the **Current Mode** is set to **Application Server**.

**EXAMPLE**

5 Enter the Database Server IP address (e.g., 192.168.8.96) in the **Database Server** field.

**EXAMPLE**
### 3.2.3 – Configuring the Database Server

Follow the steps below, after the LXI-Microservices RPM have been installed on the Central Manager Database Server, to configure the database profile (Dual Server Central Manager only).

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Log into Webmin on the Central Manager Application Server, then click <strong>Lighting Management System</strong> in the Webmin menu, and then click <strong>LXI</strong>.</td>
</tr>
</tbody>
</table>
2. In the LXI Service Settings section, select Database Server in the Service Mode list.

**EXAMPLE**

![LXI Service Settings](image1)

3. Click LXI Services Settings.

**RESULT**

![Execute Command](image2)

4. Click Return to Commands, and then verify that the Current Mode is set to Database Server.

**EXAMPLE**

![LXI Service Settings](image3)

### 3.2.4 – Installing the LXI-Adapter on a Local Controller

Follow the steps below to install the LXI-Adapter RPM on a Local Controller, from the Database Server (Dual Server CM/VCM).
Before You Begin
You will need the following to complete this procedure:

- The LXI-Adapter RPM file

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Log into Webmin on the Central Manager Database Server, then click <strong>Lighting Management System</strong> in the Webmin menu, and then click <strong>Tools</strong>.</td>
</tr>
</tbody>
</table>

**NOTE**
*This step assumes the system has been centralized.*

Result

2 Scroll to the **Install RPM on NUCs** section.

3 Click 🗄️, then browse to LXI-Adapter RPM file you downloaded to a local or USB drive earlier. Select the file, and then click **Open** to upload it.

**EXAMPLE**
3 Click **Install RPM on NUCs**.

### RESULT

![Uploading File - Internet Explorer](image)

**Filename**: `/xvi-adapter-5.0-314.x86_64.rpm`  
**Size**: 32.19 MB of 37.86 MB  
**Progress**: 

---

4 If you see `idle_in_transaction_session_timeout` and `row_security` errors, you can ignore them.

### EXAMPLE

```bash
[04:23:26]...  
|LNX Version 4.13.0|

[04:23:10]...  
[04:23:26]...  
```
```
3.3 – Starting the Central Manager LXI Services (Single Server CM/VCM)

Follow the steps below to start the LXI Services on the CM/VCM.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Log into Webmin on the Central Manager, then click <strong>Lighting Management System</strong> in the Webmin menu, and then click <strong>LXI</strong>.</td>
</tr>
</tbody>
</table>

**Result**

2. Click **elms-adaptor** in the left column of the **Service name** field, and then click -> to move it to the right column.

3. Select **Start** in the **Action** list, and then click **Execute** at the top of the **Service name** section.

4. Repeat Step 2 for all the following services to move them to the right column of the **Service name** field:

- elms-eureka
- elms-auth
- elms-email
- elms-events
- elms-gateway
- elms-notification
5 Select Start in the Action list, and then click Execute.

RESULT

6 Click Return to commands.

3.4 – Starting the Central Manager LXI Services (Dual Server CM/VCM)

Follow the steps below to start the LXI Services on the CM/VCM Database Server, followed by the Application Server.
<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Log into Webmin on the Central Manager Database Server, then click <strong>Lighting Management System</strong> in the Webmin menu, and then click <strong>LXI</strong>.</td>
</tr>
<tr>
<td>2</td>
<td>Click <strong>elms-adapter</strong> in the left column of the <strong>Service name</strong> field, and then click -&gt; to move it to the right column.</td>
</tr>
<tr>
<td>3</td>
<td>Select <strong>Start</strong> in the <strong>Action</strong> list, and then click <strong>Execute</strong> at the top of the <strong>Service name</strong> section.</td>
</tr>
<tr>
<td>4</td>
<td>Log into Webmin on the Central Manager Application Server, then click <strong>Lighting Management System</strong> in the Webmin menu, and then click <strong>LXI</strong>.</td>
</tr>
<tr>
<td>5</td>
<td>For each of the services listed below, click it in the left column of the <strong>Service name</strong> field, and then click -&gt; to move it to the right column.</td>
</tr>
<tr>
<td></td>
<td>• <strong>elms-eureka</strong></td>
</tr>
<tr>
<td></td>
<td>• <strong>elms-auth</strong></td>
</tr>
<tr>
<td></td>
<td>• <strong>elms-email</strong></td>
</tr>
<tr>
<td></td>
<td>• <strong>elms-events</strong></td>
</tr>
<tr>
<td></td>
<td>• <strong>elms-gateway</strong></td>
</tr>
<tr>
<td></td>
<td>• <strong>elms-notification</strong></td>
</tr>
</tbody>
</table>
6 Select **Start** in the **Action** list, and then click **Execute**.

**RESULT**

![Lighting Management System Interface]

---

6 Click **Return to commands**.
3.5 – Starting the ECAPI-Adapter Service on Local Controllers

Follow the steps below on each Local Controller to start the ECAPI-Adapter Service.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Log into Webmin on the Central Manager (or the Database Server on a dual-server CM/VCM), then click Lighting Management System in the Webmin menu, and then click LXI.</td>
</tr>
</tbody>
</table>

**Result**

2. Click `ecapi-adapter` in the left column of the Service name field, and then click `->` to move it to the right column.
3. Select **Start** in the **Action** list, and then click **Execute** at the top of the **Service name** section.

**RESULT**

4. Click **Return to commands**.

4 – LXI Configuration

This completes the LXI installation process, however the LXI Application must be configured before it is ready to use. Refer to the LXI User Manual for more information.

5 – Uninstalling LXI Services

Follow the steps below to remove LXI services from the Central Manager or Local Controllers.
### Step 1
Log into Webmin on the Central Manager Database Server, then click **Lighting Management System** in the Webmin menu, and then click **System**.

**Result**

![System Information](image1.png)

### Step 2
Click **Software Packages**.

**RESULT**

![Software Packages](image2.png)

### Step 3
Enter “LXI” in the **Search** box in the **Installed Packages** section, and then click **Search for Package**.

### Step 4
To remove a package for the list of search results, click **Uninstall**.