PAC License Server Administrator

USER MANUAL

Contents

Warnings and Caution Notes as Used in this Publication

⚠ WARNING

Warning notices are used in this publication to emphasize that hazardous voltages, currents, temperatures, or other conditions that could cause personal injury exist in this equipment or may be associated with its use.

In situations where inattention could cause either personal injury or damage to equipment, a Warning notice is used.

⚠ CAUTION

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> **Note:** *Notes merely call attention to information that is especially significant to understanding and operating the equipment.*

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Section 1: About this Manual

1.1 Glossary

Activation Code – An activation code is used to convert a customer's entitlement to a software license.

Device Locking Code – A device locking code is used during the activation process to bind a license to a specific device.

Entitlement – An entitlement is a purchased right to use a software application for a specified period or in perpetuity. An entitlement is activated on a supported device for use. An activated entitlement results in a license that is bound to a device.

Environment Variable – An environment variable is a device-wide variable that is configured outside of an application. Users can specify a name and value for the environment variable that can be referenced by any number of applications.

License – A license results from activating an entitlement onto a supported device. A license enables customers to use the software on the device to which it is bound.

Lease – A temporary license, usually for 30 days, taken from the available pool of licenses on the PAC License Server. The lease gives the client exclusive rights to use that license during the lease period.

PAC License Server – a dedicated server where a pool of entitlements are activated and the resulting licenses are made available to clients to lease from the server.

1.2 Revisions in this Manual

Revision	Date	Description
B	Jan 2023	Adds support for PLSA 1.5 • PLSA can now be run on both physical and virtual machines. • Parts of the UI will no longer overlap in smaller windows.
A	Apr 2022	Initial Release

Section 2: PAC License Server Administrator Installation

2.1　　　Minimum Installation Requirements

System Requirements for the PLSA Suite:

- Minimum processors (for small to medium-sized projects):
  - Intel® Core® i5
  - AMD FX® or Phenom® II X6
- Recommended processors for large projects or when using multi-instance:
  - Intel quad-core Core i7
  - AMD higher FX or Phenom II X6 models
- MS Server 2016, MS Server 2019, Windows 10, or Windows 11
- At least 2 GB of Disk Space
- At least 4 GB of RAM, 8 GB recommended
- Minimum recommended display resolution of 1920x1080 pixels

2.2　　　Other System Requirements

ELM Software (Required)

- Entitlement and License Manager (ELM)

System Requirements for Application Software

- Specific to the application software being used, the application may reside on a physical or virtual machine

Internet Access Requirements for Online Activation / Return of Licenses

- Internet access is required for online activation and license return from the ELM software using HTTPS protocol on TCP port 443.
- Server connection requires UDP port 5093 to be open to inbound traffic. This may require firewall modifications.

License Server must have a static IP address assigned

- The machine upon which the license server is installed, must have a static IP address to refresh and end leases.

Section 3:   Overview and Operation

3.1   Overview

PAC License Server Administrator (PLSA) is a desktop application that allows users to activate, return, and refresh a pool of licenses on the PAC License Server. It gives the license administrator the ability to manage licenses from a central location.

Customers can use PLSA to review the inventory of licenses available on the server and the clients that are currently leasing licenses from the server. PLSA is used in conjunction with Entitlement License Manager and Emerson Customer Center to manage licenses.

Important

Server-Side Sentinel RMS License Manager must be added to Windows Defender Firewall's Allow Apps List

- Add Sentinel RMS License Manager to the Allowed Apps list found by following the path *Control Panel > All Control Panel Items > Windows Defender Firewall > Allowed Apps*

Client-Side must have Server IP and System Name updated

- The server's IP and System Name need to be updated in the client's host files found in `C:\Windows\System32\drivers\etc`.

Virtual machines need to have the same subnet mask as the server to fetch licenses.

If a user is experiencing issues accessing the Help PDF, open *Acrobat Reader > Edit > Preferences > Security (Enhanced) > Toggle on Enable Protected Mode at startup.*
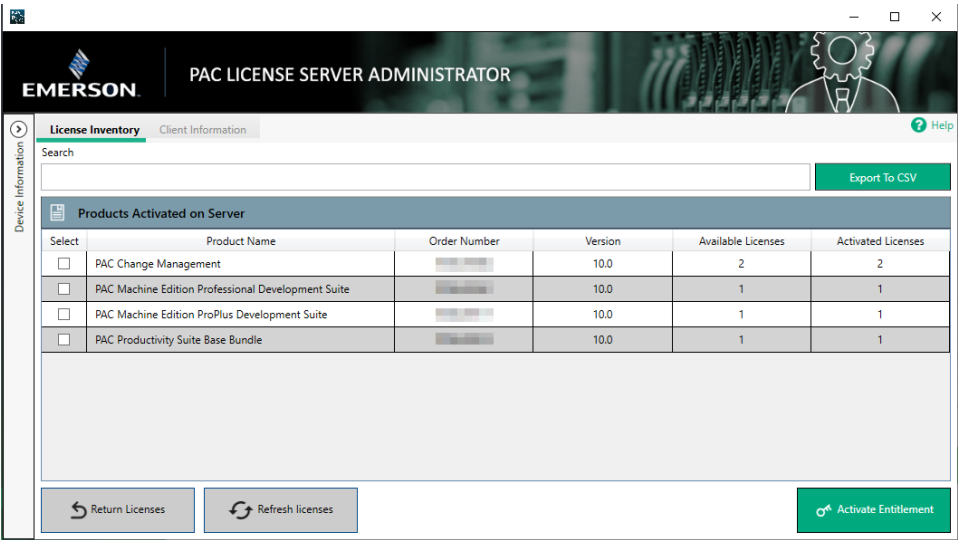
3.1.1   License Inventory Tab

The following tab shows the product name, order number, version, available license quantity, and activated license quantity.

This screen displays licenses activated on the server. The user can return or refresh activated licenses or activate additional entitlements on the server.

Figure 1: License Inventory Tab

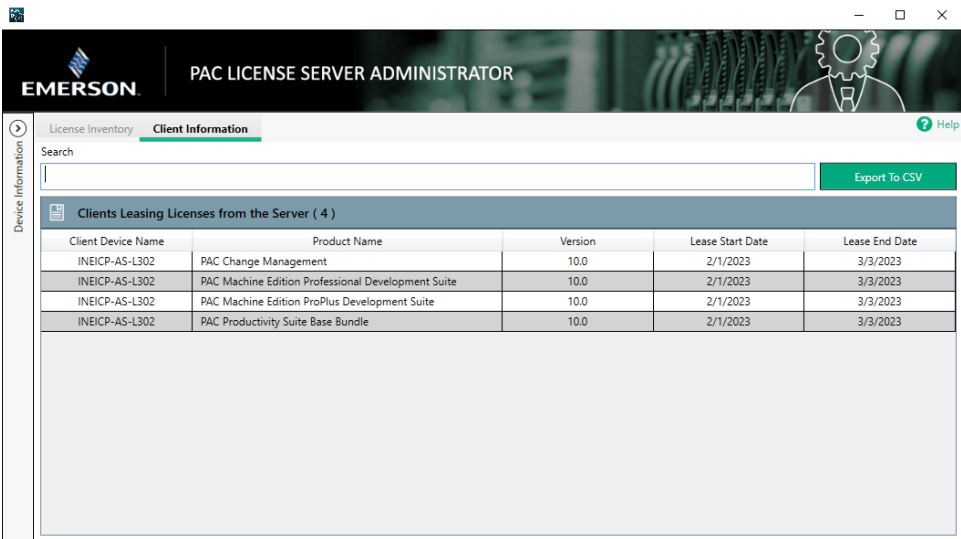If the device does not have an internet connection to EMS, the Order Number column will be blank. A yellow message will display across the bottom of the box.

Figure 2: Not Connected Message
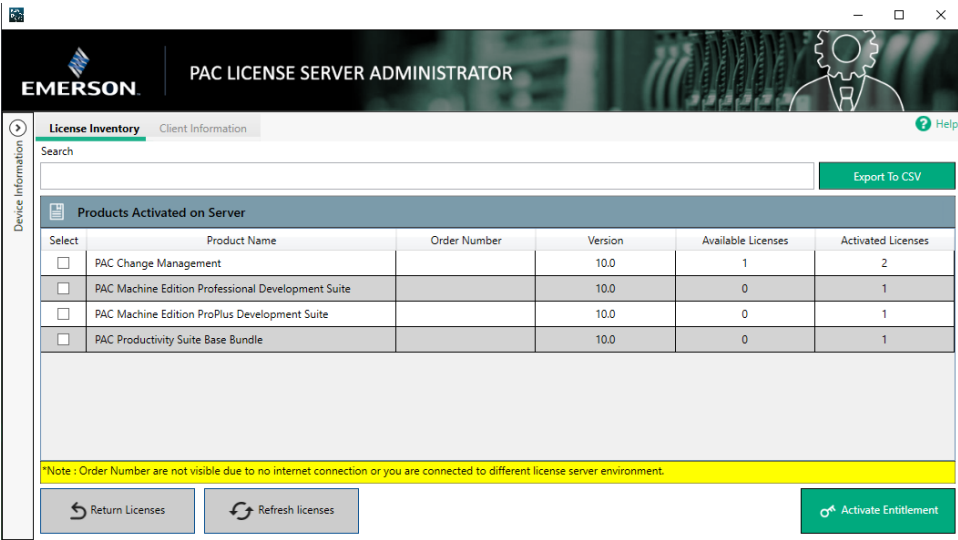
3.1.2   Client Information Tab

This tab displays the clients that have leased licenses from the server

Figure 3: Client Information Tab
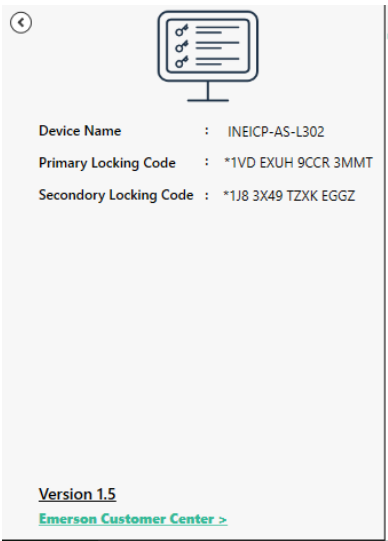
3.1.3   Device information Expandable Panel

This tab shows the user critical information like Device Name, Primary Locking Code, Secondary Locking Code, and a link to open the Emerson Customer Center.

Figure 4: Expandable Information Panel

Section 4: Activating Multiple Entitlements Simultaneously

4.1 Activating Multiple Entitlements Automatically Using the Internet

1. Click the **Activate Entitlement** button.

2. Choose **Automatic Using Internet.**

3. Enter the 36-digit activation code and Quantity to Activate (Figure 5). The activation code is provided on the customer's order fulfillment email that arrives after the order is placed.

Figure 5: Enter Activation Code and Quantity to Activate

4. The activation code can have multiple activations associated with it. The remaining activations available for the activation code entered will appear in the Available Quantity textbox. Enter a quantity equal to or less than the Available Quantity in the Quantity to Activate textbox.

5. Click the **Next** button.

6. PLSA will display a confirmation screen if the entitlements are activated successfully.

4.2   Activating Multiple Entitlements Manually

1.   Click the **Activate Entitlements** button.

2.   Select **Manual** for the Activation Method and copy or write down the device
      locking code. Click **Next.**

Figure 6: Manual Activation Method

3.   From a computer with an internet connection, navigate to:

      https://emerson.com/iac-support

4.   Click the **Software** tab and find the entitlement to activate and click **Activate
      Manually.**

Figure 7: Emerson Customer Center

5.   Enter the activation quantity in the **Quantity to Activate** text field, enter the device name
      to be activated into **Device Name Text**, and enter the **Device Locking Code**.

6.   Click **Complete Activation**.

7. Click **Download License File** and save it to a removable disk/media.

Figure 8: Click Download License File

8. Insert the removable disk/media with the downloaded license file into the machine designated as the PAC License Server.

9. In PSLA, click **Browse** and navigate to the downloaded license file. Click **Next**.

Figure 9: Upload License File

10. PLAS will confirm that the license file has been uploaded successfully.

Figure 10: Successful License File Upload

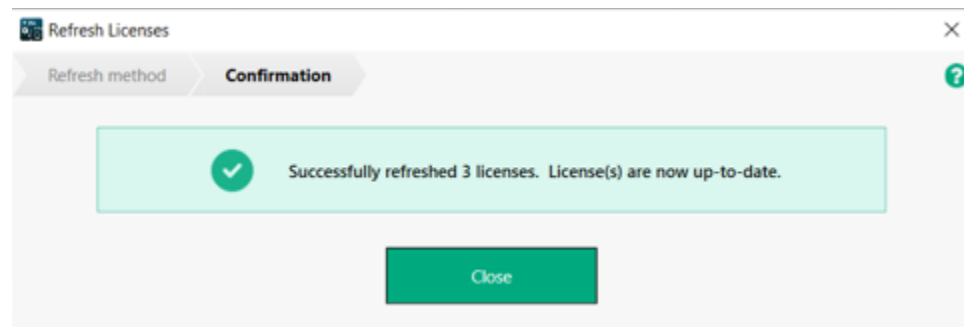# Section 5:   Refreshing Licenses

PLSA supports refreshing multiple licenses at the same time. Users will find the feature helpful to update licenses when their expiration dates change or when a new version is available for the product. These refreshes can be done automatically with an internet connection or manually with access to a machine with an internet connection.

5.1   Refreshing Multiple Licenses Automatically Using the Internet

1. With the **License Inventory** tab selected, click to highlight the license you wish to refresh and click **Refresh Licenses**.

2. Select **Automatic Using Internet** as the activation method.

3. PLSA will display a confirmation screen if the method was successful.

Figure 11: Confirmation Screen

5.2 Refreshing Multiple Licenses Manually

1. From a computer with an internet connection, navigate to:

   https://emerson.com/iac-support

2. Click the **Software** tab and locate a valid renewable license.

Figure 12: Renewal Pending

f7b3aeed-8f33-43d7-9b0b-663e912f9f5c	GE APPLIANCE CSN: 11732	PAC Solution Provider Development Program-1 Part#: EMRSPDEVL-SWK	Refresh	1	Renewal Pending
f7b3aeed-8f33-43d7-9b0b-663e912f9f5c	GE APPLIANCE CSN: 11732	PAC Solution Provider Development Program-1 Part#: EMRSPDEVL-SWK	Refresh	1	Renewal Pending
f7b3aeed-8f33-43d7-9b0b-663e912f9f5c	GE APPLIANCE CSN: 11732	PAC Solution Provider Development Program-1 Part#: EMRSPDEVL-SWK	Download	1	Activated

3. Click on **Refresh.** The text will change into a blue **Download** link.

4. Click **Download** and save the license file to a removable disk/media.

Figure 13: Download License File

Refresh	1	Renewal Pending
Refresh	1	Renewal Pending
Download	1	Activated

5. Run PSLA and select **Manual** as the activation method.

Figure 14: Manual Activation Method

6. Click **Next** to start the manual refresh process. In the next tab, need to select the license file to refresh.

7. The application will display a confirmation screen if the license has been successfully refreshed.
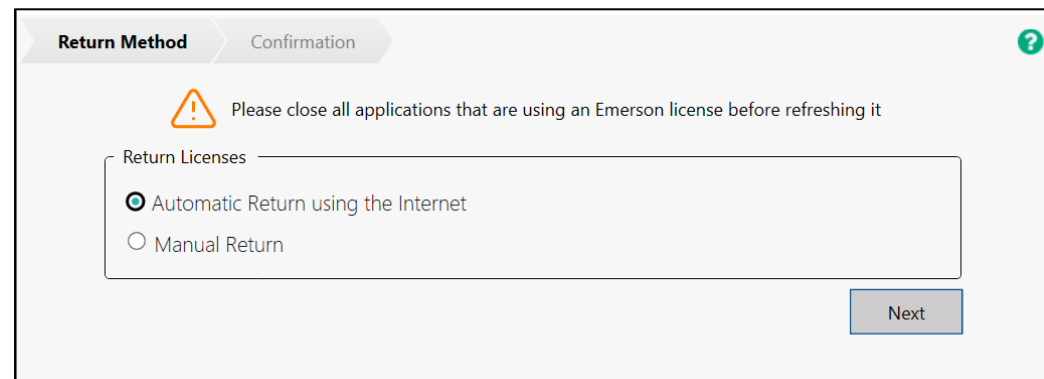
Figure 15: License Refreshed Confirmation
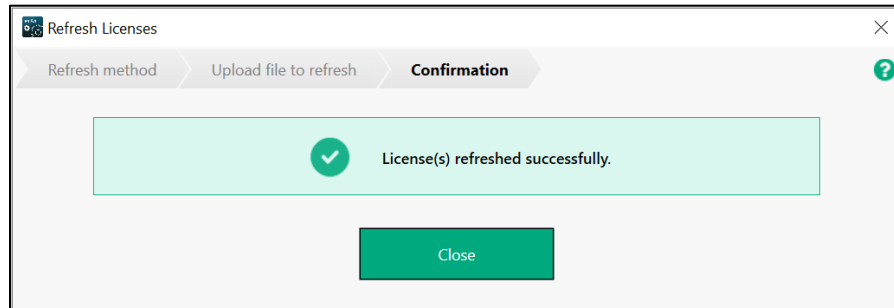
Section 6: Returning Multiple Licenses Simultaneously

PLSA supports returning multiple licenses at the same time. Users will find the feature helps to remove licenses when their expiration dates are reached or when entitlements need to be activated on different machines. Returning licenses can be done automatically with the internet or manually using a separate internet-connected machine.

6.1 Returning Multiple Licenses Automatically

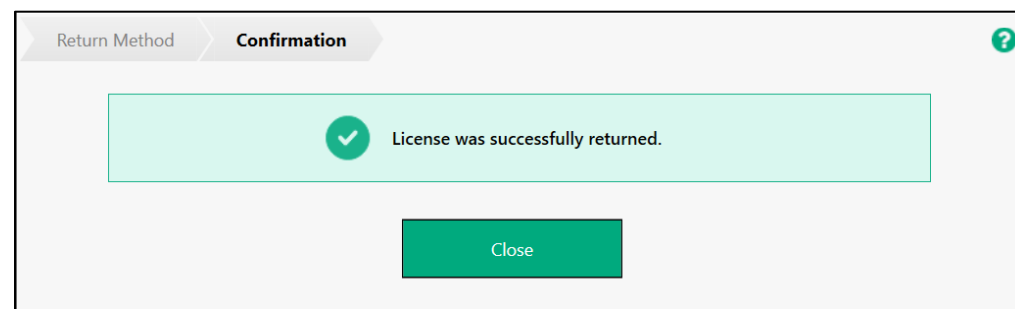1. Select **Automatic using Internet** from the Return Method options

Figure 16: Automatic Return Method

2. The automatic return method will automatically return the licenses and display a confirmation screen that the licenses have been returned.

Figure 17: Confirmation Level

6.2   Returning Multiple Licenses Manually

If the machine with PSLA installed has no connection to the internet, the user can still manually return licenses with the aid of another machine connected to the internet.

1.   Select **Manual** from the Return Method list and click **Next**.

Figure 18: Return Licenses Manually

2.   The user will need to generate a **Return Confirmation** file. The Return Confirmation file will need to be uploaded to the Emerson Customer Center.

3.   Click **Browse** to choose a path to save the Return Confirmation file. Save this file to a removable disk/media to upload to a machine with internet access.

4.   Click **Return** to generate the Return Confirmation file.

Figure 19: Select Folder

5. The system will display that the return confirmation file has saved successfully.

Figure 20: Return Confirmation File Saved Successfully

6. From a computer with an internet connection, navigate to:

    https://emerson.com/iac-support
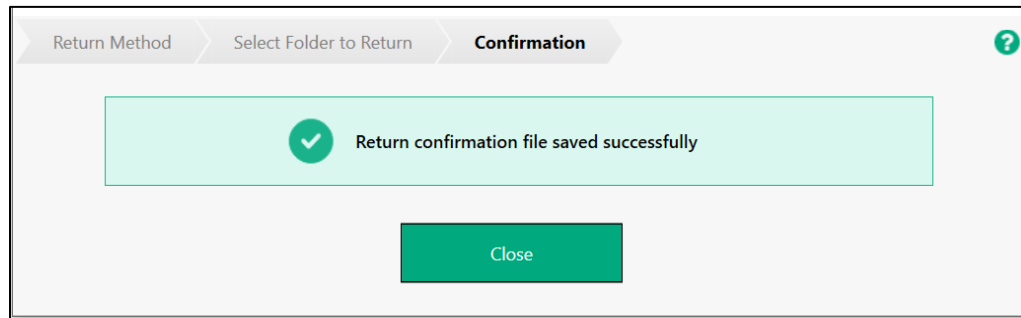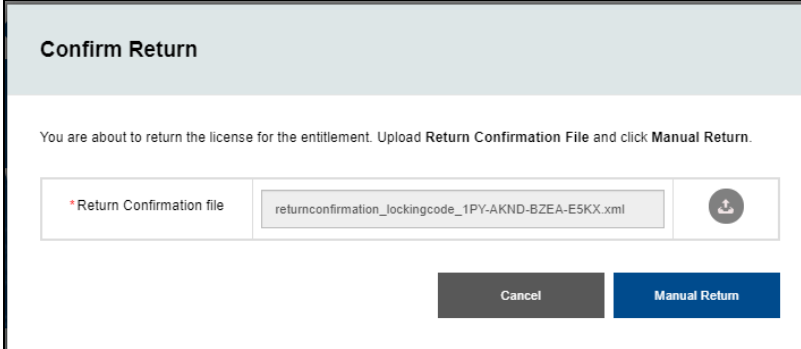
7. Click the **Software** tab and then click the **Activations** tab.

8. Click the **Manual Return** link in the upper-right corner next to the Help button.

Figure 21: Manual Return link
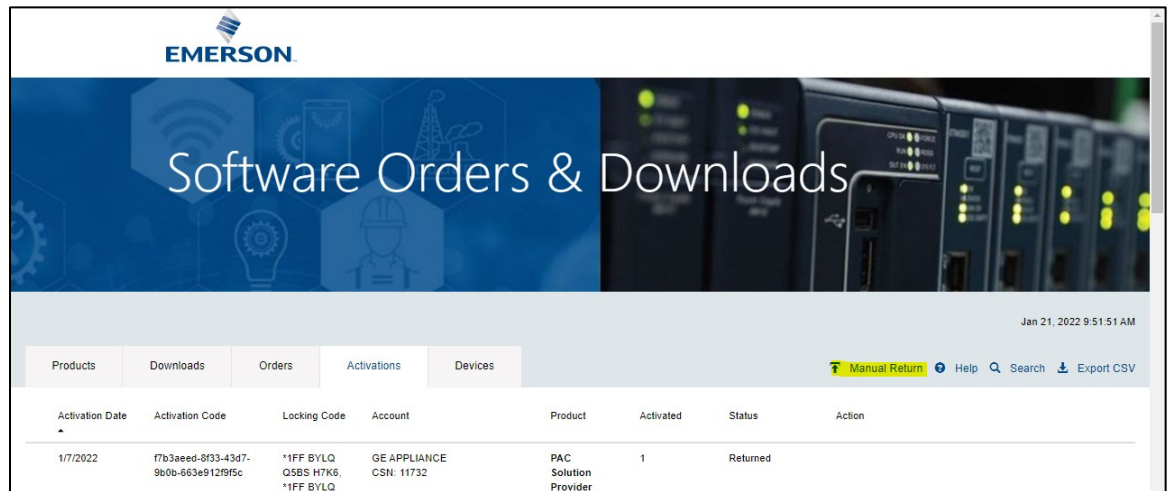
9. Emerson Customer Center will request the Return Confirmation file. Click the ⬆ button to browse for the saved file and click **Manual Return**.

Figure 22: Upload the Return Confirmation File

Confirm Return

You are about to return the license for the entitlement. Upload **Return Confirmation File** and click **Manual Return**.

| *Return Confirmation file | returnconfirmation_lockingcode_1PY-AKND-BZEA-E5KX.xml | ⬆ |

Cancel   Manual Return

10. Emerson Customer Center will display a confirmation screen if the file was successfully returned.

Appendix A: Secure Deployment Guide

This section introduces the fundamentals of security and secure configuration and deployment.

A.1:   What is Security?

Security is the process of maintaining the confidentiality, integrity, and availability of a system:

- Confidentiality: Ensure only the people you want to see the information can see it.

- Integrity: Ensure the data is what it is supposed to be.

- Availability: Ensure the system or data is available for use.

Emerson recognizes the importance of building and deploying products with these concepts in mind and encourages customers to take appropriate care in securing their Emerson products and solutions.

A.2:   General Security Recommendations

Emerson product users are recommended to follow the following general security recommendations:

- Harden system configurations by enabling/using the available security features, and by disabling unnecessary ports, services, functionality, and network file shares.

- Apply all of the latest Emerson product security updates, Software Improvement Modules (SIMs), and other recommendations.

- Apply all of the latest operating system security patches to control systems PCs.

- Use anti-virus software on control systems PCs and keep the associated anti-virus signatures up-to-date.

- Use whitelisting software on control systems PCs and keep the whitelist up-to-date.

- Limit the installation and usage of software to necessary user groups.

- Firewall: To use the PLSA system with Emerson Cloud, allow all outbound traffic at TCP port 443 to URL intelliplatform.prod.sentinelcloud.com. Be sure to allow replies to connections as well. To use ELM system with the PLSA server, all outbound traffic at UDP port 5093 to the host name.

- Proxy: When running ELM on a machine that connects to the internet via a proxy, PLSA uses system proxy settings when communicating with the Emerson cloud to conduct activations and returns.

A.3:   Secure Deployment and Hardening

Emerson recommends the following items when configuring the PAC License Server Administrator:

1. Implement the necessary ACL restrictions such that only users with an Administrator-level of privilege can run the Entitlement and License Manager.

2. Configure a local firewall to allow HTTPS traffic to reach out to the internet through port 443.

3. Configure a local firewall to allow incoming UDP port 5093, unless the default port has been changed.

General Contact Information

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Knowledge Base: https://www.emerson.com/industrial-automation-controls/support

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Any escalation request should be sent to: mas.sfdcescalation@emerson.com

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