SCIEX

The Power of Precision

License Server

Setup Guide

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Introduction 1

This guide provides instructions for installing and using the license server with Windows Server 2019, Windows Server 2016, Windows 10 (64-bit), and Windows 7 (64-bit).

License Server Requirements

This section lists the requirements that the license server computer must meet for the license server to operate.

Hardware

- Processor: 1 gigahertz (GHz) or faster
- 1 GB RAM
- 1 GB available hard disk space
- Ethernet card with TCP/IPv4 configured

Operating System

These operating systems are supported:

- Windows 10 (64-bit)
- Windows 7 (64-bit)
- Windows Server 2019 (32-bit or 64-bit)
- Windows Server 2016 (32-bit or 64-bit)

Note: It is a best practice to run the license server on a server-based operating system.

Note: The license server requires Java Runtime Environment (JRE) 8/Java Development Kit (JDK) 8, which is installed with the operating system. It is available from https://www.java.com/en/download.

Get a License for the License Server 2

Note: If both SCIEX OS-Q and SCIEX OS-MQ are installed on the same server, then the license count is pooled. The server provides licenses based on total license availability, not based on the availability of licenses of a specific type.

The license for a license server is node-locked to the license server host machine. To get the license, have the following information ready and then contact SCIEX Sales.

- The software name and version number for which the license is required.
- The MAC address of the network interface card that connects the computer to the network.

  Note: There can be more than one in a multi-homed host.

- The number of concurrent licenses to deploy.

This node-locked license file is required for deployment of the license server.

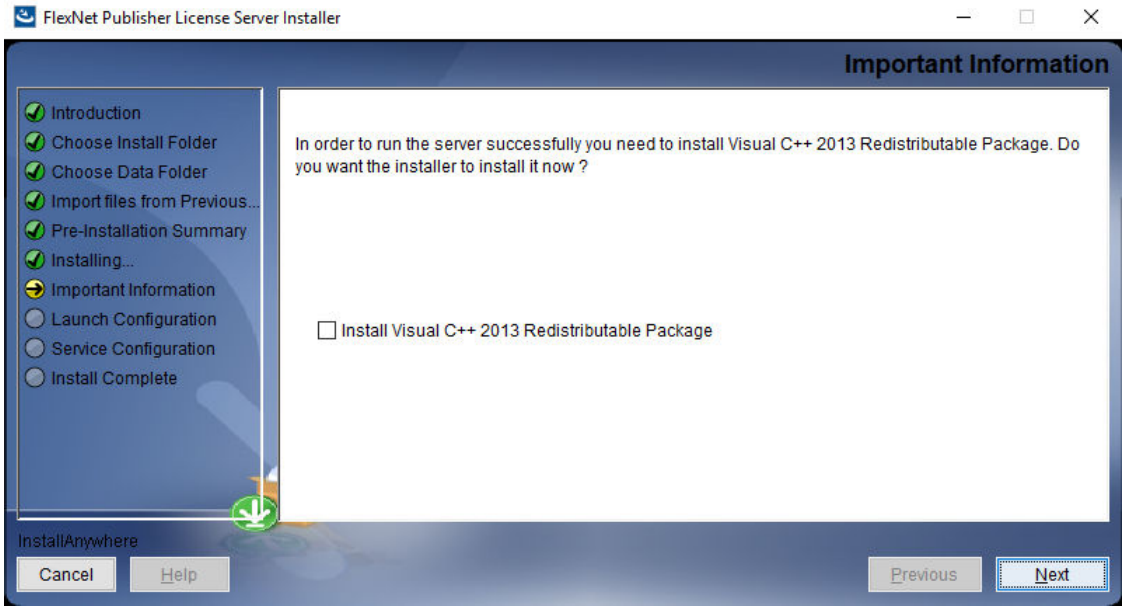
Note: Keep a copy of the license file on the `D:\` drive, in case the license is lost or corrupted.

The license server can have multiple license files, for example, one with four seats, and one with three seats, for a total of seven seats. When adding licenses make sure not to use the overwrite license, unless the intention is to remove any existing licenses and replace them with the new one.

Install the License Manager Administrator (lmadmin) Server 3

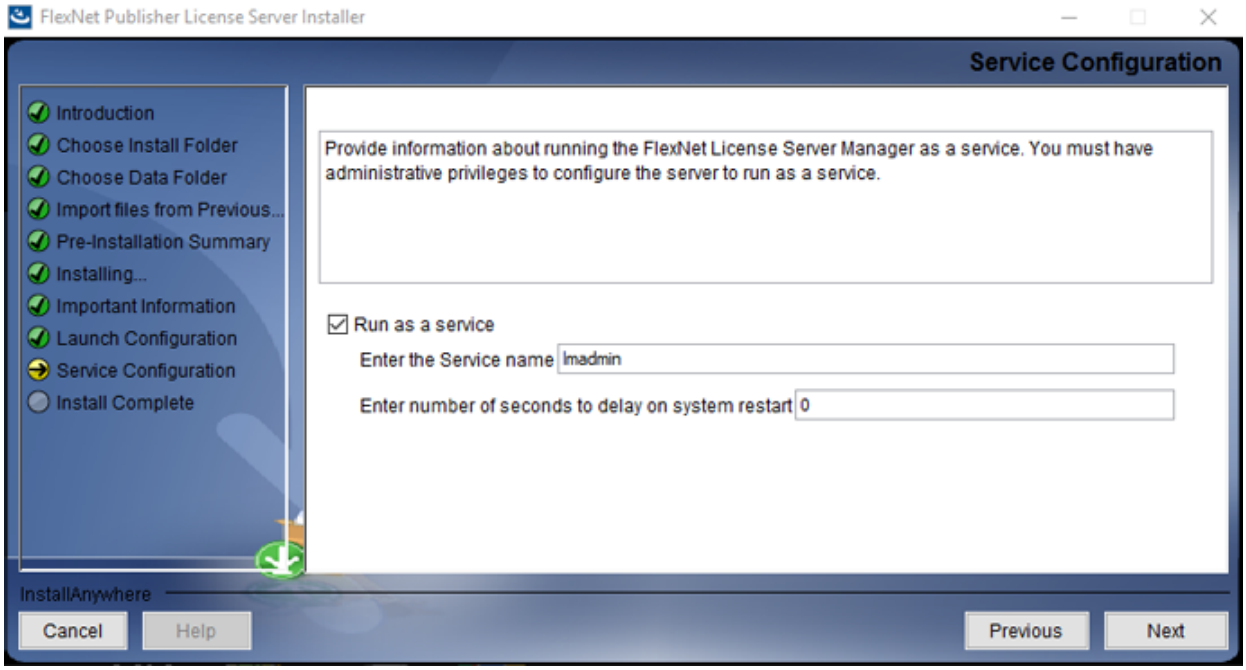
1. Download the `License-Server-Setup.zip` compressed download package from the licensing server setup section of sciex.com/software-support/software-downloads.
2. Extract the contents of the downloaded file.
   `License-Server-Setup.zip` contains these files:
   - `lmadmin-i86_n3-11_16_5_1.exe`: FlexNet Publisher software
   - `ScxMSSW0.exe`: Sciex Vendor Daemon software
   - `License-Server-Setup-Guide.pdf`: *License Server Setup Guide*
   - `Example_License.lic`: Example Client License File
3. On the license server computer, make sure that the Java Virtual Machine is installed. To get the latest version of Java, go to https://www.java.com/en/download.
4. Run `lmadmin-i86_n3-11_16_5_1.exe` from the unzipped package and then install lmadmin.
5. Click **Next**.
6. Click **Next** on all of the subsequent pages until the Important Information page is shown.
7. Select the **Install Visual C++ 2013 Redistributable Package** check box.

Figure 3-1 Important Information Page



8. Click **Next**.
9. Click **Next** until the Service Configuration page is shown.
10. Select the **Run as a service** check box.

Figure 3-2 Service Configuration Page

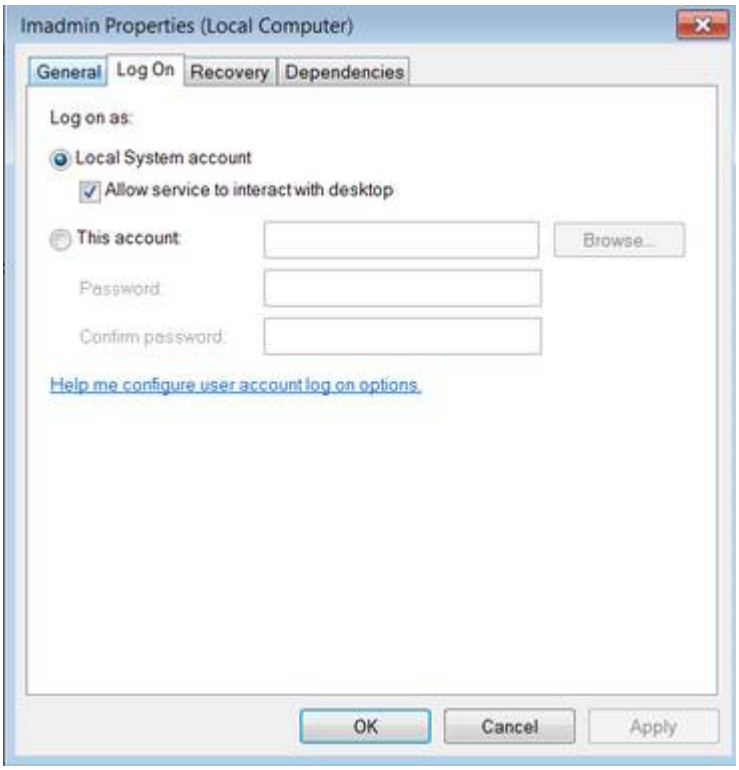


11. Click **Next**.
12. Click **Done**.

Deploy the License Server 4

1. Make sure that the properties of the lmadmin service are set correctly.
   a. Select the lmadmin service in the Services control panel.
   b. On the Log On tab, click **Local System Account** and then select the **Allow service to interact with desktop** check box.
   c. Click **OK**.

Figure 4-1 lmadmin Properties



2. Start the lmadmin service.
3. Go to http://localhost:8090/.
4. On the Administration tab, type the username and password.
   The default username and password are `admin`.

Note: The software prompts the user to change the default password after the first login. Make sure to record the password and store it in a safe place.

5. Copy `ScxMSSW0.exe` from the unzipped package and then paste it directly in the appropriate folder, depending on the operating system:
   a. 64-bit Windows: `C:\Program Files (x86)\FlexNet Publisher License Server Manager`
   b. 32-bit Windows: `C:\Program Files\FlexNet Publisher License Server Manager`
6. Put the license file that is node-locked to the Ethernet MAC address of the licensing server in the appropriate folder, depending on the operating system:
   a. 64-bit Windows: `C:\Program Files (x86)\FlexNet Publisher License Server Manager\licenses\ScxMSSW0`
   b. 32-bit Windows: `C:\Program Files\FlexNet Publisher License Server Manager\licenses\ScxMSSW0`

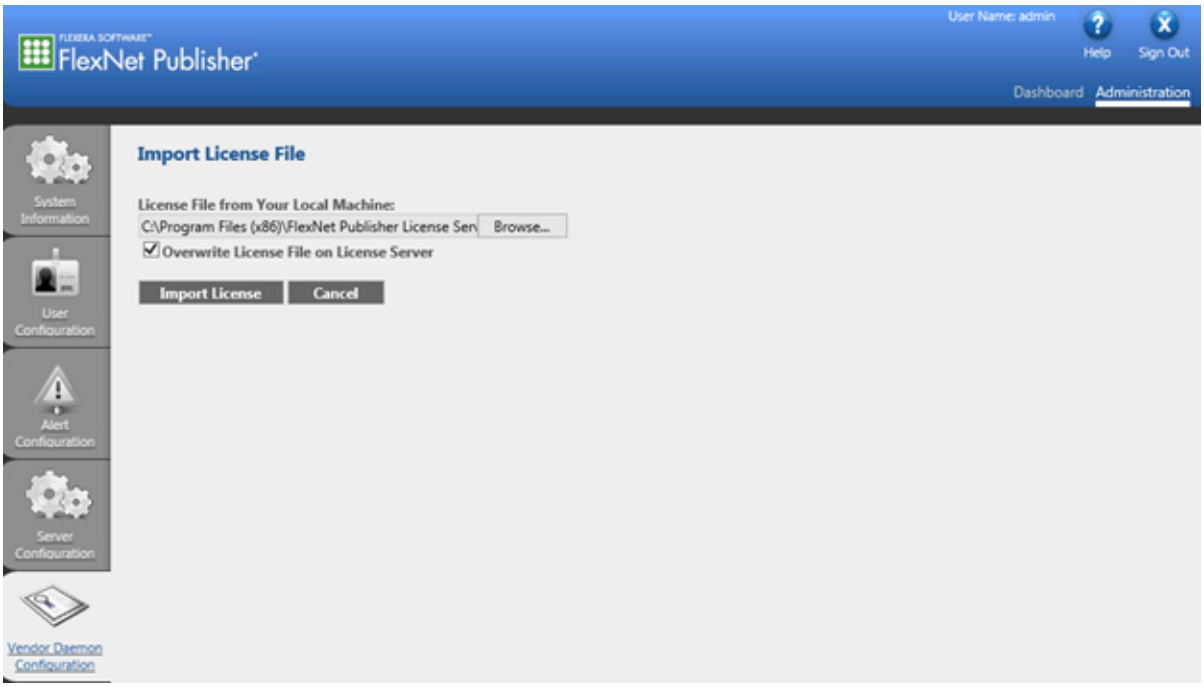
   To get the license file, refer to the section: Get a License for the License Server.

Note: Create the `licenses\ScxMSSW0` directory structure if it does not already exist in the `C:\Program Files (x86)\FlexNet Publisher License Server Manager` folder on a Microsoft Windows 64-bit system or in the `C:\Program Files\FlexNet Publisher License Server Manager` folder on a Microsoft Windows 32-bit system. This is done to store the license file.

Note: Keep license files in a separate location, in case the server fails, or in case files are accidentally overwritten or deleted as the result of changes to the server.

7. Go to http://localhost:8090/vendor.
8. Click **Import License** in Vendor Daemon Configuration.
9. Browse to the folder specified in step 6, select the license file, and then click **Open**.
10. Select the **Overwrite License File on License Server** check box and then click **Import License**.

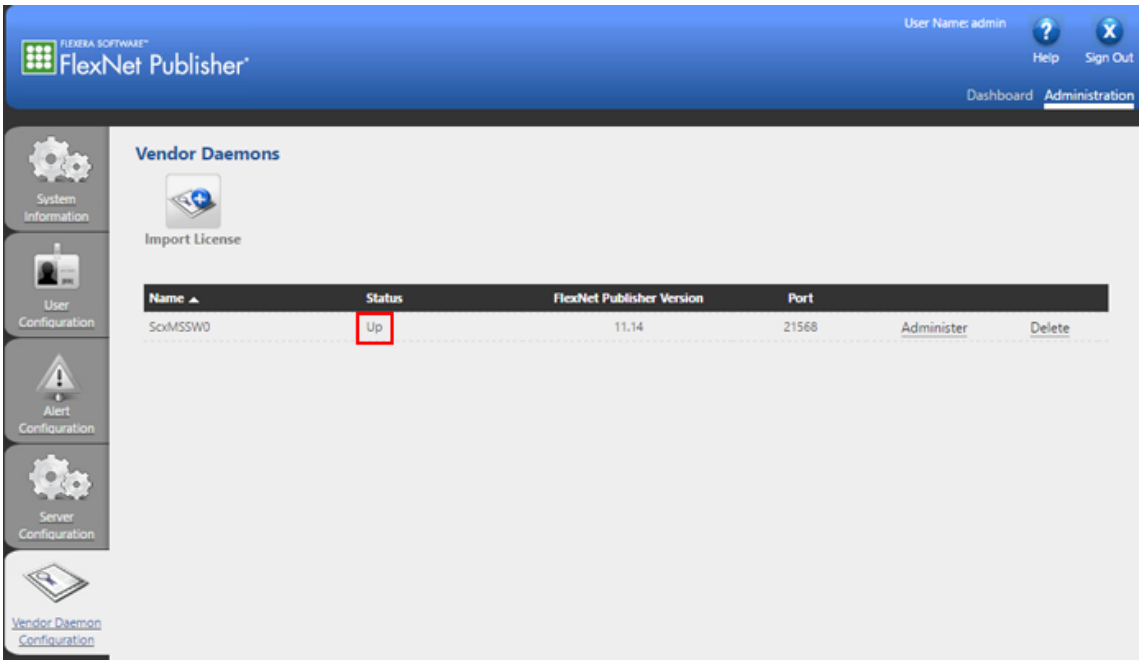
Figure 4-2 Import License File Page



Note: The license must be imported for server-based licensing to work.

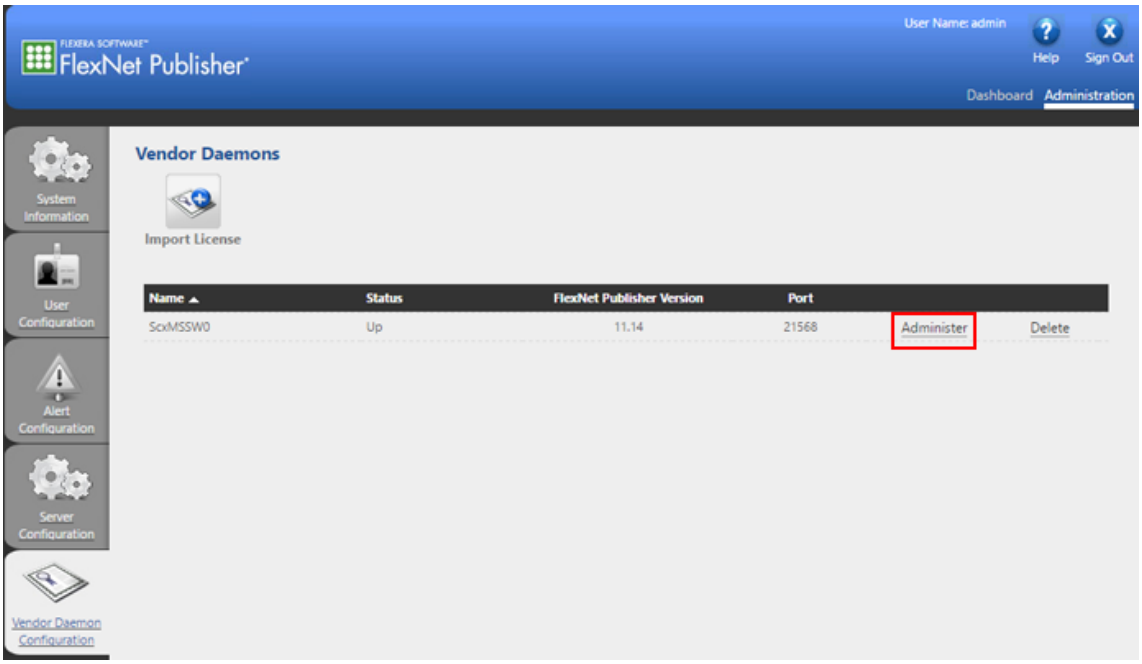
If the import is successful, then a message is shown to indicate that the license file was uploaded successfully. Close the message. The FlexNet Publisher window shows that the Vendor Daemons is running with the status **Up**.

Figure 4-3 Vendor Daemons



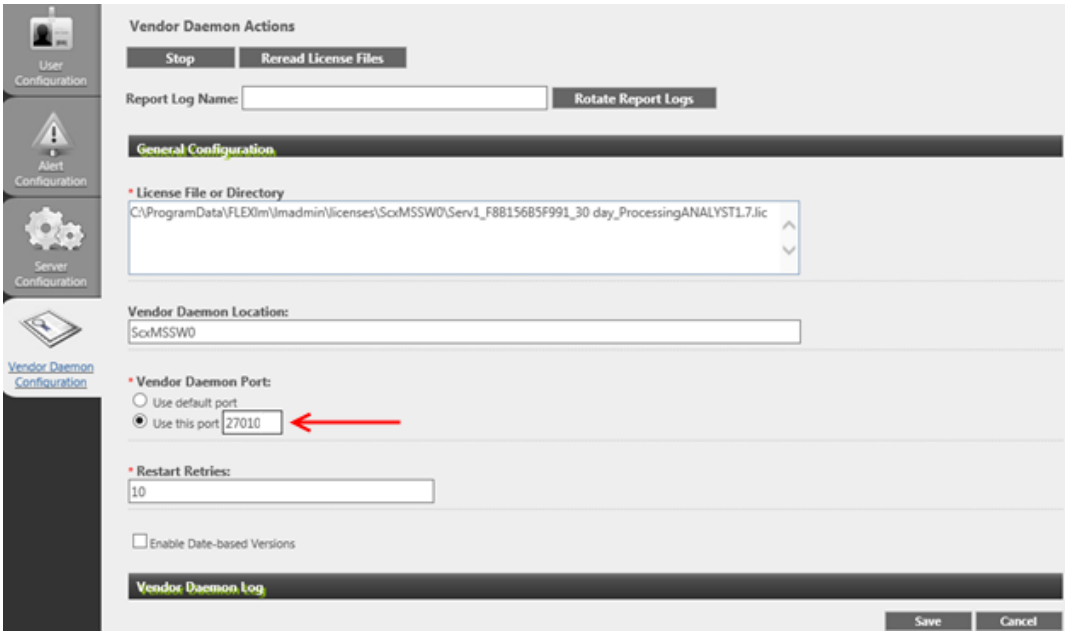
11. Click **Administer**.

Figure 4-4 Administer



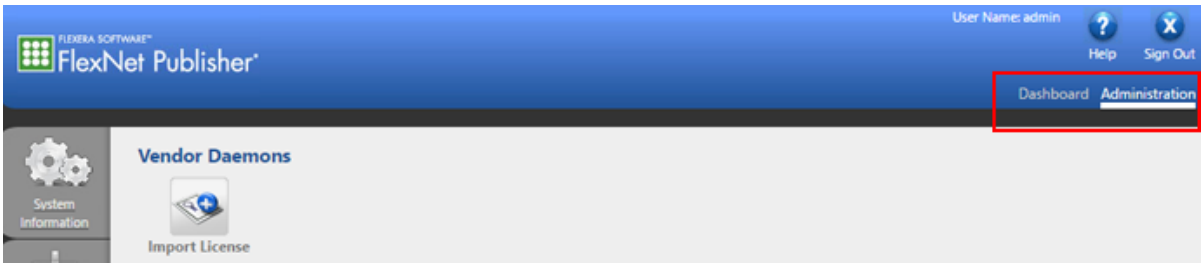
12. Type `27010` in the **Use this port** field to configure the **Vendor Daemon:ScxMSSW0** to use port **27010**.

Figure 4-5 Configure the Vendor Daemon Port



13. Click **Save** at the bottom of the page.
14. Click **Stop** to stop the Vendor Daemon Actions.
15. Click **Administer** again.
16. Click **Start** to start the Vendor Daemon Actions.
17. Change to the Dashboard tab and then back to the Administration tab.

Figure 4-6 Dashboard and Administration Tabs



The status for Vendor Daemons shows as **Up**.

18. In the Windows Defender Firewall with Advanced Security pane, add two new Windows Firewall rules, one inbound rule and one outbound rule, to allow both inbound and outbound TCP connections to the server on the following ports:

    - 8090 (for remote access to the FlexNet Publisher Administration)
    - 27000 (for FlexNet Publisher server)
    - 27010 (for Vendor Daemon)

    Note: For more information on creating inbound and outbound rules, refer to the section: Create a New Inbound or Outbound Rule.

    Figure 4-7 Inbound Rule

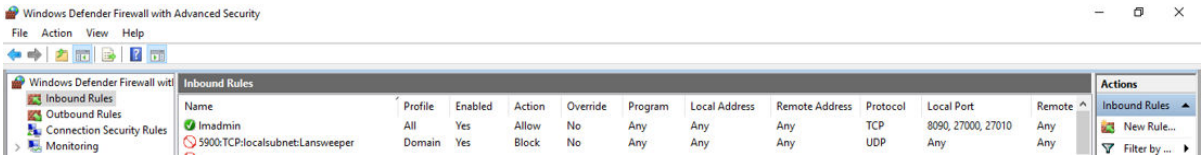
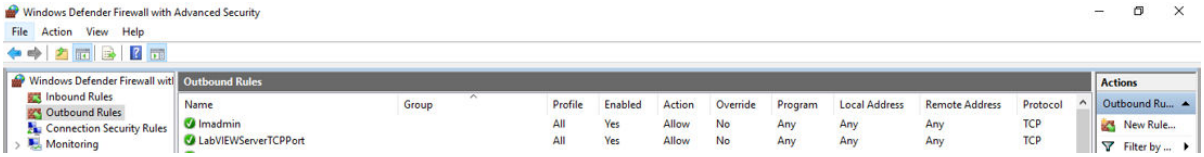
    

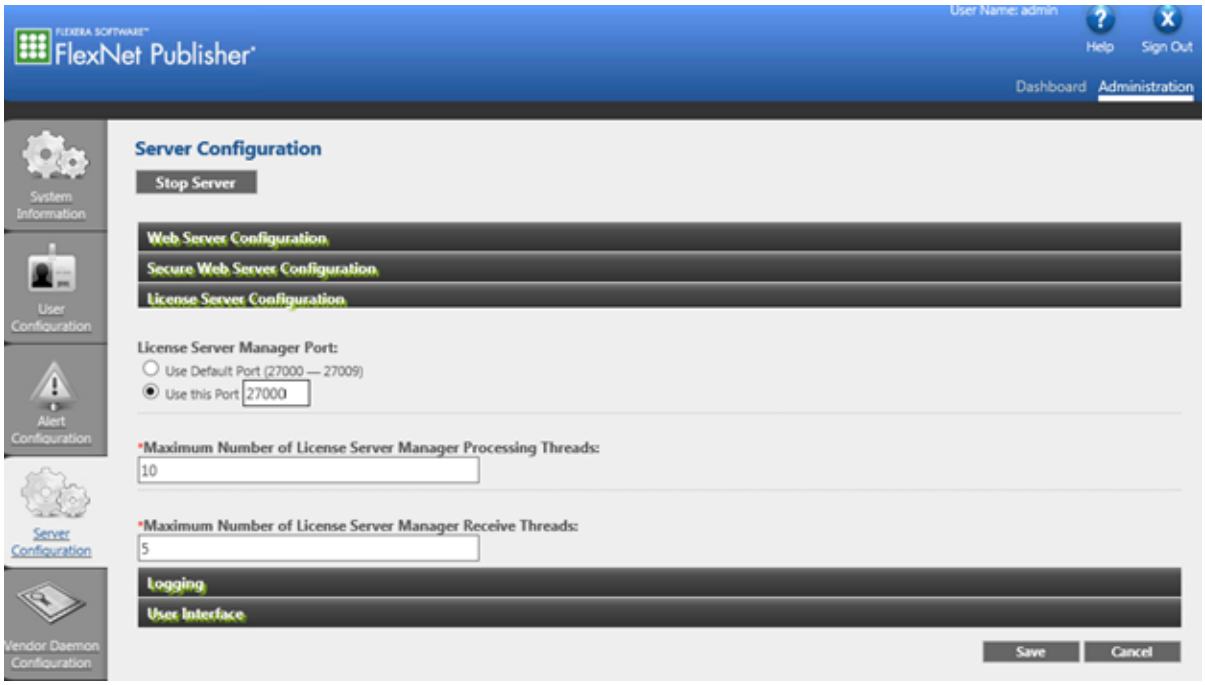
    Figure 4-8 Outbound Rule

    If a different port, in the range of 27000 to 27009, is used for the FlexNet Publisher server, then adjust the Windows Firewall settings to allow this communication, if required.

19. On the server, go to http://localhost:8090/.
20. Open the Server Configuration tab, expand the **License Server Configuration** section, select **Use this port**, and then type `27000`. Click **Save**.

Figure 4-9 Check Port Used by lmadmin



21. In Task Manager, stop the FlexNet Publisher Manager (lmadmin) service and then start it again.

Note: If the default range 27000 to 27009 is used, then find out which port the lmadmin is running on by opening the System Information tab.

22. Activate the server license. Go to sciex.com/request-support and create a support ticket.

Create a New Inbound or Outbound Rule

1. In the Navigation panel of the Windows Defender Firewall with Advanced Security on Local Computer window, click either **Inbound Rules** or **Outbound Rules**.

Figure 4-10 Inbound Rule

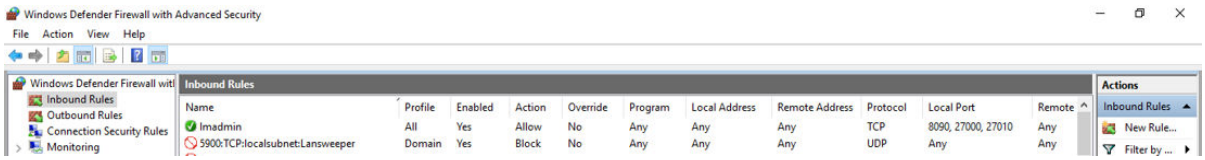
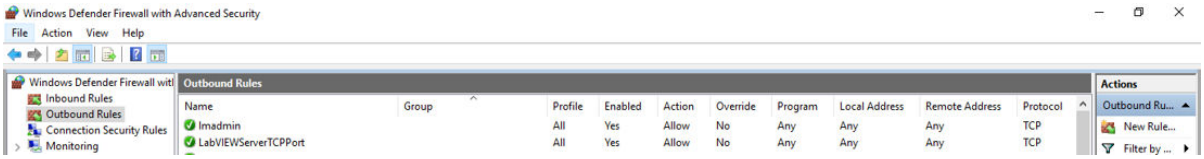


Figure 4-11 Outbound Rule



2. In the Actions pane, click **New Rule**.
   The New Inbound Rule Wizard or New Outbound Rule Wizard dialog opens.
3. Click **Port** and then click **Next**.
   The Protocol and Ports window opens.
4. Click **TCP** and then click **Specific local ports**. Type the following ports:
   - 8090
   - 27000
   - 27010
5. Click **Next**.
   The Action pane opens.
6. Click **Allow the connection** and then click **Next**.
   The Profile pane opens.
7. Click **Next**.
   The Name pane opens.
8. Type **lmadmin** in the **Name** field.
9. Click **Finish**.

Create and Distribute the Client License 5

Note: The client computers on which the licensed SCIEX software are to be run must be on a network with access to the server.

A `USE_SERVER` license file is a special type of license file that contains a special keyword, `USE_SERVER`. The license file can be created in a text editor and then saved as an lic file with the **All Files** file type selected.

The `SERVER` line must always be:

```
#PLEASE DO NOT DELETE THIS COMMENT LINE:
SERVER <IP or HOSTNAME> ANY <PORT>
```

The last line must be:

```
 USE_SERVER.
```

We recommend using the server name instead of the TCP/IP address of the license server. The server name (*<HOSTNAME>*) should be the full computer name, including the domain. For example `ServerComputerName.Domain.Net`.

Create and save a `USE_SERVER` license file and then distribute it to each client.

Note: On the client computer, put the license file in the appropriate directory for the software being licensed.

Table 5-1 License File Locations

Software	File Location
Analyst software and CFR	`C:\ProgramData\AB SCIEX\Analyst\License`
SCIEX OS and CFR	`C:\Program Files\SCIEX\SCIEX OS`

Multiple licenses can be installed on the same client, for different software. For example, a client computer might have two license files, one for the Analyst software, and one for SCIEX OS.

Note: A specific license file name might be required for each software version for which the license is used.

For example `USE SERVER` licenses, refer to the section following sections. Copy these examples to a text editor and then replace the information with the information for the server to create a new license file.

License File Name

Use the following format for the file name: `<software><version>_<seats>_Seats.lic`.

Where:

- <*software*> is the name of the software, either the SCIEX OS or Analyst software.
- <*version*> is the software release number.
- <*seats*> is the number of seats.

Example 1

```
#Please Do not delete this comment line.
SERVER CO.SERV.NET ANY 27000
Vendor ScxMSSW0
USE_SERVER
```

Example 2

```
#Please Do not delete this comment line.
SERVER 168.254.0.80 ANY 27000
Vendor ScxMSSW0
USE_SERVER
```

Licensing Rules 6

- The server license must be a server concurrent license, not a node-locked license.
- The client license must not be imported on the license server.
- Before importing a previously imported license again, the user must make sure that the **Overwrite License file on License Server** option is selected before importing the license.
- When importing a different license file for the same software application, the user must select the old license file path in the **License File or Directory** field and then press **Delete**. Click **Save**, stop the Vendor Daemon, and then start the Vendor Daemon again.
- After the maximum licensed number of clients has been reached, no more users can log on to the software application until after some client computers log off.
- Users are allowed to borrow a license from their software application to work offline for up to seven days. When a license is borrowed, the available number of licenses on the license server is decreased by one. The available number of licenses increases by one when the user returns the borrowed license or after seven days, whichever is sooner.
- A user can only return a license if the client can access the server.
- A user can only borrow a license if the user is logged on to the software application and the license will not expire within seven days.

Upgrade the License 7

When a new software version becomes available, upgrade the licenses on the server and the client computer.

1. Get a license for the new software version. Refer to the section: Get a License for the License Server.
2. Deploy the license on the server. Refer to the section: Deploy the License Server. Do not overwrite the existing license.
3. (If required) Create a new client license and distribute it to the client computers. Refer to the section: Create and Distribute the Client License.
4. After all of the licenses are distributed, delete the old license versions.

Move the License 8

To move the server license to a different server, or to move the client license to a different computer, go to sciex.com/request-support and create a support ticket.

Troubleshooting 9

- If the Vendor Daemon is deleted from the Vendor Daemon Configuration tab in the FlexNet Publisher, then, after importing the license file, make sure to reset the **Vendor Daemon Port** to 27010 instead of the default port. Save and then start the Vendor Daemon again.
- If a borrowed license is not returned properly, then close the SCIEX software and shut down the computer for eight to ten minutes. Then start the software to see if the license has been returned.

  This issue might occur if communication between the client and server fails while a license is being returned. The software attempts to re-establish communication five times, at one-minute intervals. If communication is re-established within this five-minutes interval, then the license is not returned.
- To restart the license server, restart the computer or restart the lmadmin service in the Services tab of the Task Manager.
- Make sure that the lmadmin service is running as a **Local System Account**, with the **Allow service to interact with Desktop** check box selected. Refer to the section: Deploy the License Server.
- Make sure that the lmadmin service is configured as **Automatic** (not **Delayed Start**).
- When changing passwords, make sure to record them and store them in a safe place.
- For any other issues, contact sciex.com/request-support.

Contact Us

Customer Training

- In North America: NA.CustomerTraining@sciex.com
- In Europe: Europe.CustomerTraining@sciex.com
- Outside the EU and North America, visit sciex.com/education for contact information.

Online Learning Center

- SCIEX Now Learning Hub

SCIEX Support

SCIEX and its representatives maintain a staff of fully-trained service and technical specialists located throughout the world. They can answer questions about the system or any technical issues that might arise. For more information, visit the SCIEX website at sciex.com or contact us in one of the following ways:

- sciex.com/contact-us
- sciex.com/request-support

CyberSecurity

For the latest guidance on cybersecurity for SCIEX products, visit sciex.com/productsecurity.

Documentation

This version of the document supercedes all previous versions of this document.

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