

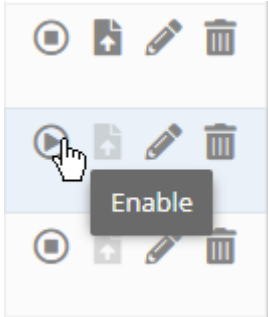
# Adding and editing license servers

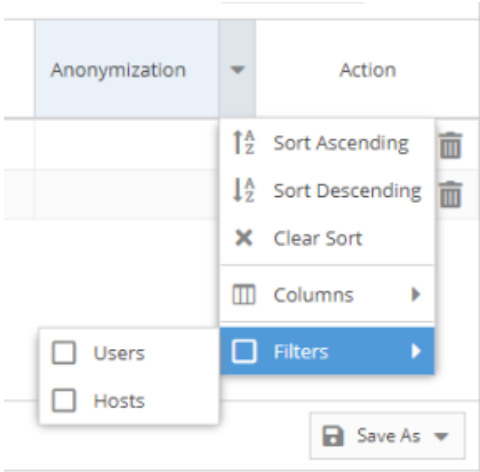
*The information on this page refers to License Statistics v6.19 and newer, which added filtering for the Anonymization column in the License Servers grid. If you are using a version previous to v6.19, see [documentation for previous versions](#).*

You can add [license servers](#) and edit information for existing license servers using the General tab in the **License Servers** page, found under the Administration section in the left navigation pane. (This page is visible only for License Statistics administrator users.) You can also [verify your License Statistics configuration](#), which may be useful for troubleshooting purposes.

## License Servers grid

The License Servers grid in the License Servers page lists information for each currently configured license server, as described in the following table.

| Column Name                | Description                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| License Server             | The display name for the license server.                                                                                                                                                                                                                                                                                                                                                  |
| License Server ID          | The ID of the license server.                                                                                                                                                                                                                                                                                                                                                             |
| License Server Description | The optional user-defined description for the license server.                                                                                                                                                                                                                                                                                                                             |
| License Manager            | The <a href="#">license manager</a> type (can be any <a href="#">supported license manager</a> or a <a href="#">custom license manager</a> ).                                                                                                                                                                                                                                             |
| Host                       | The <a href="#">hostname</a> of the license server. If the license server is configured to be redundant (three servers are used) this is the hostname of the main license server.                                                                                                                                                                                                         |
| Port                       | The port to use for the license server. If the license server is configured to be redundant (three servers are used) this is the port for the main license server.                                                                                                                                                                                                                        |
| Data Source Status         | <p>The status of the license server for each applicable data source, including Remote, Import, and End User (e.g., Agents).</p> <p>You can hover over each data source status to see its details, including Last Update Time and, for "Failure" status, the relevant error message.</p> <p>For detailed information about license server status, see <a href="#">License Servers</a>.</p> |
| Enabled                    | <p>Indicates whether <a href="#">monitoring</a> is enabled for the license server. A toggle in the Action column indicates the enabled status and allows you to enable/disable the license server as needed.</p>                                                                                       |
| Last Update Time           | Indicates the time the data for the license server was last updated for all data sources. A status of "Never" indicates that the server was created but doesn't have any data yet (for example, the server has not yet had its first query or it was disabled before it was queried for the first time, or it was never imported).                                                        |
| Query Interval             | Indicates the time interval (in minutes) between queries.                                                                                                                                                                                                                                                                                                                                 |
| Redundant                  | Indicates (Yes/No) whether the license server is redundant.                                                                                                                                                                                                                                                                                                                               |
| Feature Versioning         | Indicates (Yes/No) whether <a href="#">Feature Versioning</a> is enabled for the license server.                                                                                                                                                                                                                                                                                          |

|               |                                                                                                                                                                                                                                                                                  |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Anonymization | <p>Indicates whether users, hosts, or both are anonymized for the license server. A Filters option allows you to show/hide servers according to their anonymization of users and/or hosts:</p>  |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

 Some columns are hidden by default. To control the visibility of columns, see [instructions for filtering grid content](#).

## Adding or editing a license server

License Statistics lets you add license servers with the same hostname, port, and other settings multiple times, which may be useful when you want to experiment with using different features, such as Feature Versioning. You should note, however, that the name you give to the license server must be unique; i.e., different than other names already assigned to existing servers.

To add or edit a license server:

1. To edit an existing license server, click the **Edit** icon in the Action column of the License Servers grid row for the license server you want to change. An Edit License Server dialog opens to allow you to change the existing settings for that license server.

or

To add a new license server, click **Add** at the bottom of the License Servers grid. An Add New License Server dialog opens to allow you to configure the new license server.

2. The dialog will contain tabs for General information and for each data source that is applicable to the license server type (Remote Monitoring, Importing, and/or End User Monitoring). Complete the information in the Add New/Edit License Server dialog as described below in "License Server settings."
3. The Remote Monitoring tab lets you verify the license server configuration manually.

If you would like to verify the configuration, click **Verify** at the bottom of the Remote Monitoring tab. (This step is not necessary; the configuration will automatically be verified when you save the license server, as described in the next step.)

Edit License Server

General

Remote Monitoring

Importing

Enable Remote Monitoring

General

Query Tool Path

/lmxendutil

Encoding

UTF-8

Query Interval

(Minutes)

1

2

5

10

Gathering Data

Usage

Denials

Connection

Redundant

Hostname

xflicense

Port

(Optional)

6200

Password

(Optional)

Verify

Save

Save and Close

Close

Verification may take a long time depending on the license manager's response time, and the status will show that the server is being verified. The verification results will include the status (success or failure), the reason for the failure if verification failed, and the query tool output. The output should look similar to the following.

License Server Remote Monitoring Configuration Verification

Status

Success

Output

# Output 1

<?xml version="1.0" encoding="UTF-8"?>
<LM-X\_STAT\_VERSION="4.9.25">
<LICENSE\_PATH TYPE="NETWORK" HOST="6200@xflicense" SERVER\_VERSION="5.1" UPTIME="4 day(s) 4 hour(s) 51 min(s) 3 sec(s)" STATUS="SUCCESS">
<FEATURE NAME="feature1\_sim" VERSION="1.0" VENDOR="X-FORMATION" USED\_LICENSES="0" TOTAL\_LICENSES="5" DENIED\_LICENSES="0" RESERVED\_LICENSES="0" SHARE="VIRTUAL">
<FEATURE NAME="feature2\_sim" VERSION="1.0" VENDOR="X-FORMATION" USED\_LICENSES="0" TOTAL\_LICENSES="5" DENIED\_LICENSES="0" RESERVED\_LICENSES="0" SHARE="VIRTUAL">
<FEATURE NAME="feature2\_sim" VERSION="1.0" VENDOR="X-FORMATION" USED\_LICENSES="0" TOTAL\_LICENSES="10" DENIED\_LICENSES="0" RESERVED\_LICENSES="0" SHARE="VIRTUAL">
<FEATURE NAME="feature3\_sim" VERSION="1.0" VENDOR="X-FORMATION" USED\_LICENSES="0" TOTAL\_LICENSES="1" DENIED\_LICENSES="0" RESERVED\_LICENSES="0" SHARE="VIRTUAL">
<FEATURE NAME="feature4\_sim" VERSION="1.0" VENDOR="X-FORMATION" USED\_LICENSES="0" TOTAL\_LICENSES="100" DENIED\_LICENSES="0" RESERVED\_LICENSES="0" SHARE="VIRTUAL">
<FEATURE NAME="feature5\_sim" VERSION="1.0" VENDOR="X-FORMATION" USED\_LICENSES="0" TOTAL\_LICENSES="2" DENIED\_LICENSES="0" RESERVED\_LICENSES="0" SHARE="HOST\_US">
<FEATURE NAME="licstat\_import" VERSION="6.0" VENDOR="X-FORMATION" USED\_LICENSES="15" TOTAL\_LICENSES="50" DENIED\_LICENSES="0" RESERVED\_LICENSES="0" SHARE="VIRT">
</FEATURE>
</LICENSE\_PATH>
</LM-X\_STAT\_VERSION>
</?xml>

Save to File

Close

When the verification is complete, you can use **Save to File** to export and save the data to a file if desired; for example, X-Formation Support may request this file for troubleshooting.

- After completing all settings as needed, click **Save** or **Save and Close** to save the license server. You can click **Close** at any time if you do not wish to save your changes.

## License Server settings

License Server settings, described below, are divided into tabs, including General; Remote Monitoring; End User Monitoring (currently for the Autodesk license manager type only); Importing (for license manager types for which importing license server data is supported); and Custom Application Monitoring (for the Custom Application license manager type only). Within each tab, only the settings that are valid for the selected License Manager Type will be shown. For example, the "Vendor Daemon Name" setting is applicable only to FlexNet, RLM and OLICENSE license manager types, so this setting will not display for other license manager types.

| Setting                            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General tab</b>                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>General settings</b>            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Name                               | The name for the license server that will be displayed in License Statistics. This can be any descriptive, unique name that helps you identify the license server in License Statistics pages.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Enabled                            | <p>Check this box to enable monitoring for the license server. When this box is not checked, monitoring for the license server is disabled.</p> <p>Only enabled license servers are counted in the number of license servers you can monitor according to your License Statistics license agreement. You can add any number of disabled license servers. If you have reached your limit of license servers you can monitor, you can disable any license servers that you do not need to monitor and enable the license servers you do need to monitor.</p>                                                                                                                                                                      |
| License Manager Type               | <p>The type of license manager you are using for the license server. This selection list includes all <a href="#">supported license managers</a>. You can begin typing the license manager type to limit the selection list to entries that contain the characters you type.</p> <p>If you select Custom as the license manager type, you must specify the path to your custom XML file in the File Path field under Connection settings. See <a href="#">Supporting a custom license server</a> for information on adding a custom license server.</p> <p>If you select Custom Application as the license manager type, you must <a href="#">set up custom application monitoring</a>.</p>                                     |
| Description                        | An optional description for the license server.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Vendor settings</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Name                               | The vendor name read from the license server output. Read-only field is set to the proper value on the first query.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Daemon Name                        | <p>An optional vendor daemon name for the license server. This entry cannot contain spaces or special characters, except underscores, hyphens and periods.</p> <p>Applicable only for FlexNet, RLM, CodeMeter and OLicense license manager types.</p> <p>FlexNet license servers are configured with case-sensitive names by default, so make sure the vendor name uses the correct case when configuring a FlexNet license server. An error in the vendor name may cause problems with License Statistics usage monitoring. See "Failure to find licenses for FlexNet license server" in <a href="#">FLEXlm and FlexNet license server issues</a> for more information.</p> <p>For CodeMeter license server use Firm Code.</p> |
| Display Name                       | An optional name to display for the <a href="#">vendor</a> in reports.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Gathering settings</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Anonymous Usernames / Hostnames    | <p>Make users and/or hosts anonymous in the database and reports (normally used to protect users for legal reasons, as is required in some countries). When enabled:</p> <ul style="list-style-type: none"> <li>• Usernames will be hashed, and LDAP details will be removed</li> <li>• Hostnames and IP addresses will be hashed</li> </ul> <p>Note that you can set this additional option only when adding a license server; you cannot edit this option after adding the server. If you do not choose to anonymize data for the license server, note that you can perform <a href="#">"on-demand" data anonymization of historical data</a> as needed.</p>                                                                  |
| <a href="#">Feature Versioning</a> | <p>Enable Feature Versioning for the supported license server types.</p> <p>Note that you can set this additional option only when adding a license server; you cannot edit this option after adding the server.</p> <p>Currently this option works with the following license servers:</p> <ul style="list-style-type: none"> <li>• LM-X License Manager</li> <li>• IBM LUM</li> <li>• FlexNet</li> <li>• Reprise License Manager (RLM)</li> <li>• Sentinel RMS</li> <li>• License4J</li> <li>• TLM</li> </ul>                                                                                                                                                                                                                 |
| <a href="#">Collections</a>        | <p>Toggle on to enable Collections. Applies only to Autodesk and Dassault license managers.</p> <p>Note that this setting cannot be changed for Autodesk license servers after the license server has been created. However, this setting may be enabled/disabled for Dassault at any time.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Remote Monitoring tab</b>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

To view remote monitoring settings, toggle on **Enable Remote Monitoring** at the top of the Remote Monitoring tab (enabled by default).

### General settings

Query Tool Path The path to the license manager's query tool defaults to *license\_statistics\_installation\_directory/query\_tool\_default\_name*, where the query tool default name is specific to the license manager being used, as follows:

| License manager | Query tool default name |
|-----------------|-------------------------|
| LM-X            | lmxendutil              |
| BETA LM         | beta_lm_stat            |
| Dassault        | DSLicSrv                |
| EPLAN LM        | ElmMonitor              |
| FlexNet         | lmutil                  |
| GHS             | lic_find_licenses       |
| GNS             | licstat                 |
| IBM LUM         | i4blt                   |
| LICMAN          | licman20_appl           |
| LS-Dyna         | lstc_qrun               |
| MathLM          | monitorlm               |
| OLicense        | olixtool                |
| RLM             | rlmutil                 |
| Sentinel RMS    | lsmon                   |
| TLM             | licdstat                |

Edit the path if needed, and make sure the query tool is in the specified path.

**Important:** The query tool executable (and the path provided in the License Statistics UI) must be local. If you edit the path, ensure that the query tool executable is located on the same machine as the License Statistics installation.

Query Tool Path is not applicable when using the Custom, Autodesk, JetBrains, License4J, oXygen and Zoo license manager types.

Encoding Changes the encoding used by License Statistics when analyzing data from a license server.

By default, this is set to UTF-8. For a list of supported encodings, see:

<https://docs.oracle.com/en/java/javase/13/intl/supported-encodings.html>

Locale Applies only to Altium license manager type.

This optional setting can be used to change the locale assumed by License Statistics when parsing output from the server. This setting is empty by default, and should be specified only if necessary.

A list of available locale values can be found at <https://www.oracle.com/java/technologies/javase/jdk17-suported-locales.html>, under the Language Tag column.

Query Interval Time in minutes between each license server query.

Choose between 1, 2, 5 (default), 10, 15 and 20 minutes.

Gathering Data Toggle on data gathering for usage and/or denials (choices depend on license manager type selected).

EPLAN Bundle Applies only to EPLAN LM license manager type. See [EPLAN Bundles](#) for more information.

### Connection settings

Redundant Check this box to specify that redundant servers are being used. For example, for LM-X, you would toggle on the Redundant setting if you are [using a HAL \(High Availability License\) license server](#).

When Redundant is checked, you must enter the hostname and port number for all three servers. For LM-X, the server order is indicated as "#1 HAL server," "#2 HAL server," and "#3 HAL server."

The Redundant setting is applicable only for LM-X, FlexNet, BetaLM, Dassault, IBM LUM and GNS license manager types.

| Secured                                                                                                                                                                                                   | <p>Check this box to force HTTPS connection for servers using HTTP monitoring.</p> <p>The Secured setting is applicable for oXygen, JetBrains, Zoo and CodeMeter license managers only.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|------|------|-----|------|----------|------|-----|------|-----|------|--------|------|-----------|------|-----------|-------|--------|------|-----|------|---------|------|
| Hostname                                                                                                                                                                                                  | The license server hostname. This entry must be a hostname or domain value, and cannot contain spaces, special characters (underscores, hyphens and periods are allowed), or protocols (e.g., "http(s)://").                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| File Path                                                                                                                                                                                                 | For Custom license servers, the Hostname field (described above) is replaced by a "File Path" field, which is used to provide the path to the file to be monitored.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| Port                                                                                                                                                                                                      | <p>The license server port number, which may have a default setting depending on the license manager selected, as follows.</p> <table border="1"> <thead> <tr> <th>License server</th><th>Port number</th></tr> </thead> <tbody> <tr> <td>LM-X</td><td>6200</td></tr> <tr> <td>RLM</td><td>5053</td></tr> <tr> <td>Dassault</td><td>4084</td></tr> <tr> <td>GHS</td><td>2009</td></tr> <tr> <td>GNS</td><td>7200</td></tr> <tr> <td>Altair</td><td>6200</td></tr> <tr> <td>JetBrains</td><td>8080</td></tr> <tr> <td>License4J</td><td>16090</td></tr> <tr> <td>Oxygen</td><td>8080</td></tr> <tr> <td>TLM</td><td>9090</td></tr> <tr> <td>AIS/PLS</td><td>9780</td></tr> </tbody> </table> <p>The Port number setting is not applicable when using the IBM LUM, LICMAN, Sentinel RMS, MathLM, and Custom license manager types.</p> | License server | Port number | LM-X | 6200 | RLM | 5053 | Dassault | 4084 | GHS | 2009 | GNS | 7200 | Altair | 6200 | JetBrains | 8080 | License4J | 16090 | Oxygen | 8080 | TLM | 9090 | AIS/PLS | 9780 |
| License server                                                                                                                                                                                            | Port number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| LM-X                                                                                                                                                                                                      | 6200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| RLM                                                                                                                                                                                                       | 5053                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| Dassault                                                                                                                                                                                                  | 4084                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| GHS                                                                                                                                                                                                       | 2009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| GNS                                                                                                                                                                                                       | 7200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| Altair                                                                                                                                                                                                    | 6200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| JetBrains                                                                                                                                                                                                 | 8080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| License4J                                                                                                                                                                                                 | 16090                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| Oxygen                                                                                                                                                                                                    | 8080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| TLM                                                                                                                                                                                                       | 9090                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| AIS/PLS                                                                                                                                                                                                   | 9780                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| Login                                                                                                                                                                                                     | <p>The username to access protected resources.</p> <p>This setting is applicable only for JetBrains and oXygen license manager types.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| Password                                                                                                                                                                                                  | <p>The password to access protected resources..</p> <p>This setting is applicable only for LM-X, Dassault, JetBrains and oXygen license manager types.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| <b>Importing tab</b>                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| <p>To enable importing the logfile using the License Statistics UI or API, toggle on <b>Enable Importing</b> at the top of the Importing tab.</p> <p>There are no settings for the Importing tab.</p>     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| <b>End User Monitoring tab</b>                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| <p>This tab currently applies only to the Autodesk license manager type. To view End User Monitoring settings, toggle on <b>Enable End User Monitoring</b> at the top of the End User Monitoring tab.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |
| Agent Groups                                                                                                                                                                                              | <p><a href="#">Agent Group</a>(s) that will be used to automatically monitor Autodesk applications on their hosts.</p> <p>This setting is applicable only for the Autodesk license manager type.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |             |      |      |     |      |          |      |     |      |     |      |        |      |           |      |           |       |        |      |     |      |         |      |