

Application licensing strategies

The information on this page refers to LM-X v5.0, which added the upgrade license type. If you are using an older version of LM-X, please refer to [documentation for earlier versions](#).

LM-X License Manager handles the most simple to the most complex licensing needs. If you require a simple licensing solution, you can use LM-X default settings with few or no modifications.

If your licensing needs are more sophisticated, LM-X includes many advanced features to handle your needs, as described in [Feature descriptions](#). LM-X offers outstanding flexibility to adjust the license model to your business strategy in two main ways: a universal and wide selection of license file settings (tags), and a license file structure with independent sets of tags that define features. (See [Protecting your application](#) for details on license files.)

You should consider the following as part of your licensing strategy, depending on the type of license you want to use:

- For node-locked licenses, you should consider whether the license will work on terminal servers or virtual machines (not enabled by default) and whether to enable a trial license if a normal license is not in place.
- For floating licenses, you should consider policies for dealing with heartbeats and network disconnects (for example, how you will handle saving files and quitting the application in case the network is down).
- For trial licenses, you do not need to change your procedures. To enable trial licenses, you simply set a predefined trial length as described in [Trial licenses](#). A trial license begins when the application is run for the first time. Trial licenses have anti-reuse and anti-clock tampering mechanisms that prevent usage after the trial length has expired. You may also consider whether to allow the trial to work on terminal servers or virtual machines.

Example source code for each of these basic license types are included in the examples directory and are described in [Getting Started with LM-X License Manager](#).

The following tables show the most common feature settings for node locked and floating licenses, whether they are required or optional, and whether they are set by default.

Settings for both node-locked and floating licenses

Setting	Required for node-locked	Required for floating	Usage	Set by default
KEY	Yes	Yes	License key set by the license generator, which should not be modified.	Yes
VENDOR	Yes	Yes	Your assigned vendor ID, which should not be modified.	Yes
MAJOR_VERSION	Yes	Yes	The major version number of the feature.	Yes (Defaults to 1)
MINOR_VERSION	Yes	Yes	The minor version number of the feature.	Yes (Defaults to 0)
END	No	No	Specifies the license expiration date.	No
LICENSEE	No	No	Specifies the customer name to which the license has been issued.	Yes
SYSTEMCLOCKCHECK	No	No	Enables/disables the system clock check performed by client application and license server.	Yes
CLIENT_HOSTID	No	No	Locks the license to a specific machine. Note: This setting applies to both floating and node-locked licenses, because a license may be locked to both a server (using SERVER_HOSTID) and one or more clients.	No
HOSTID_MATCH_RATE	No	No	Specifies the percentage of HostIDs that must match for successful HostID verification.	Yes (Defaults to 100%)

Using or changing one more of the above settings can change a licensing model. For instance:

To use this licensing model:	Modify the license file settings to:
Feature-limited demo license	Contain only the features you want to license.
Temporary license	Set END to the date on which you want the temporary license to end.
Permanent license	Do not set END.
Time-limited	Set END to a specific date.
Annual subscription	Set END to the current date + one year.
Copy protection license	Use CLIENT_HOSTID.

Shared license	Use SHARED=USER HOST CUSTOM.
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Settings for floating licenses only

Setting	Required	Usage	Set by Default
KEYTYPE	Yes	Specifies whether a network license is exclusive, additive, upgrade or token-based.	Yes (Defaults to exclusive)
COUNT	Yes	Specifies the number of licenses that can be issued simultaneously for the particular feature floating on the network.	No
SERVER_HOSTID	No (highly recommended)	Locks the license to a license server machine.	No
BORROW	No	Enables leasing of licenses to computers that can be disconnected from the network.	Yes
GRACE	No	Enables leasing of licenses to computers that are disconnected from the network unexpectedly.	Yes

The following table describes licensing options that are commonly used, and whether they apply to node-locked or floating licenses.

License Option	Node-locked	Floating	Usage	Default Behavior
Trial licenses	Yes	Yes	Lets end users use an application for a predetermined length of time without requiring a license.	Disabled by default. When enabled, trial licenses are not allowed on virtual machines or terminal servers by default.
Licensing for virtual machines and cloud computing	Yes	Yes	Lets you explicitly allow trusted and enterprise customers to use your application in a virtual environment.	By default, LM-X denies all checkouts for local licenses in virtual environments, such as VMware or Virtual Server, and refuses to load licenses on license servers to prevent potential license overuse.
Automatic server discovery	No	Yes	Allows a client application to find license servers on the network automatically.	By default, automatic server discovery is disabled on the client side.