

Search paths

The information on this page refers to LM-X v5.4.1, which added search path caching for network licenses. If you are using an older version of LM-X, please refer to [documentation for earlier versions](#).

Every LM-X protected application has a search path for licenses. The application will search for licenses in the following order.

Order	Search Path
1	Preset path and/or automatic server discovery (this information is provided by your application vendor).
2	The environment variable <code>VENDOR_LICENSE_PATH</code> . The <code>VENDOR</code> name is the same as that specified in the license file.
3	The generic environment variable <code>LMX_LICENSE_PATH</code> , which is used by all applications protected by LM-X.

Note: Paths are separated with a semicolon (;) and backslashes (\) on Windows systems and a colon (:) and forward slashes (/) on Unix systems.

Using the above search paths, the application will try to find a license in the following order:

1. Borrowed license.
2. License embedded as a string in the software.
3. Node-locked (local) license.
4. Network (floating) license (this includes automatic server discovery).
5. Grace license.
6. Trial license.

Note: LM-X attempts to use local licenses before it tries to use counted network licenses to optimize license utilization.

At each step, if no license is found in the specified source, the application will continue to the next source in the path. You may specify unlimited multiple paths if desired; for example under Windows, `LMX_LICENSE_PATH=6200@server1;6200@server2;6200@server3`. The protected application stops searching as soon as it finds a valid license.

Network path caching for HAL servers

For HAL servers, LM-X uses a cache to check for server connection failures. If one of the HAL server connections fail, LM-X will move the failed server to the end of the search path list, and if the server comes back online, it will be checked for connection again.

If another of the HAL servers does not respond during the connection step, LM-X replaces the information in the cache. Information about the most recent server connection failure is cached for 10 minutes, thereby decreasing the average connectivity time in cases of restarting or simultaneously starting the LMX client.