System clock check issues

"System clock has been set back" error

If you get a "system clock has been set back" error from LM-X License Manager, LM-X has detected that your system clock has been set back. Under some circumstances, the check can return a false positive. For example, you might have accidentally changed the clock to a future time.

To resolve this problem, you should set the system clock to the correct (present) time. If you believe the error is a mistake and your system clock seems to be correct, ask your application vendor for assistance.

For more information, see System clock check.

"WARN - License checkout not successful for session ..." error

LM-X License Manager may not work as expected if you get an error similar to the following:

```
2016-11-16 11:28:44,435 WARN - License checkout not successful for session Session ID/ Name. Error: LM-X Error:
(Internal: 98 Feature: Name of feature)
System clock has been set back from 1970-Jan-01 00:00:00
For further information go to http://www.x-formation.com
```

Assuming that LM-X client is embedded into an application running on IIS web server and, therefore, uses IIS_IUSRS identity, you need to have read access permissions to the following folder:

C:\Windows\SysWOW64\config\systemprofile\AppData\Local\x-formation

To resolve this issue, set read access permissions for IIS_IUSRS.

Why is my system clock set to a distant date in the future?

The Windows file system is based on the Gregorian calendar, which was instituted in 1582. Because of the constraints of the Gregorian calendar, you may get a “system clock has been set back” error indicating that the clock has been set back from a distant date in the future, for example:

```
System clock has been set back from 2022-Oct-16 17:30:49
```

ANSI C defines 32-bit `time_t`, which is interpreted as the number of seconds that have elapsed since 00:00:00 UTC on 1 January 1970 to 03:14:07 UTC on 19 January 2038.

LM-X License Manager uses `time_t`, because this is the only portable representation of time across operating systems. If a file from outside the span specified by `time_t` (for example 1750) is detected by Windows, the Windows API changes the time to the one that fits the range represented by the `time_t`, thereby resulting in LM-X informing the user that system clock check has been set back from a random date.

To fix this problem, reset the system clock using the LmxResetSystemClock tool to correct the time in the affected files. (See System clock check for more details.)

Problem with verifying system clock

If there is a problem with using lmxresetsystemclock.exe to synchronize your local system's clock with a remote time server, you may see the following error:

```
LM-X Error: Could not verify system clock due to failed connection with remote time server
```

To resolve this problem, it is necessary to verify that UDP port 123 (NTP protocol) is not blocked by a firewall.