

LonMaker® and LNS® License, Credits and License Errors FAQ

(Rev 1.4)

This document provides information about the LonMaker and LNS license and credits, including how to check and fix license errors or failures. Other than Topic 1 below, this document does not cover the OpenLNS Commissioning Tool or OpenLNS Server products. The OpenLNS products do not require or use credits.

See the Echelon Support Knowledge Base or User's Manuals on the Echelon website (www.echelon.com) for additional information about topics discussed below.

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1. Which products require device credits?

The following products require credits to commission devices with the exception of routers and LNS network service devices:

- LonMaker 3.1 Integration Tool
- LonMaker Turbo Integration Tool
- LNS 3.0 Server
- LNS Turbo Server

Starting with LonMaker Turbo SR4/SP4 and LNS Turbo SP7, credits are no longer required to commission devices based on the Echelon FT 5000 or Neuron 5000 chips. Credits are still required for devices based on other processors.

The OpenLNS Commissioning Tool and OpenLNS Server never require or use device credits. The OpenLNS products are separate products from the LNS and LonMaker products, covered by a different license. They are compatible with the LonMaker and LNS Server products, so you can eliminate the use of credits entirely by licensing and installing the appropriate OpenLNS product over your LonMaker or LNS Server installation.

2. What are device credits?

Device credits are used or returned when you commission or de-commission a device with the LonMaker Integration Tool or any other tool that incorporates an LNS Server. The LNS Server is used by the LonMaker tool and many other LNS based tools and applications.

You use a device credit when you commission a device. You get back a device credit when you de-commission a device (up to the total number of credits you have purchased for the computer running the LNS Server).

You must use the appropriate LonMaker or LNS License Wizard to activate a license or buy additional credits. There are two types of device credits—LonMaker Credits and LNS Device Credits. LonMaker Credits are required whenever the LonMaker tool is used with a network. LNS Device Credits are used in networks without the LonMaker tool.

It is common for network integrators to create a network database and commission devices on a laptop computer and then move the network database to another on-site computer. In this case the credits are used from the notebook and you don't need to use any additional ones on the on-site computer unless you add new devices.

Re-commissioning a device does not use additional credits.

3. Are LonMaker and LNS licenses and device credits the same thing?

The LonMaker tool and LNS Server are separate products and have their own device credits, and have their own License Wizard and License Transfer Wizard. LonMaker Credits are required whenever the LonMaker tool is used with a network. LNS Device Credits are used in networks without the LonMaker tool. When you use the LonMaker tool you do not use LNS Device Credits, however you must have at least one LNS Device Credit to use the LonMaker tool.

If you are using LonMaker and a third party LNS application you will use the LonMaker tool to commission and decommission devices, and you can use either the LonMaker tool or your other LNS applications to configure, monitor, and control devices.

4. Can I use LNS Device Credits with the LonMaker tool or vice versa?

No, you can only use LonMaker Credits with the LonMaker tool, and LNS Device Credits with LNS applications on networks that do not use the LonMaker tool. See the previous topic above for more information

5. How do I activate a license, request replacement license activation or get replacement credits?

Use the LonMaker or LNS license wizard to generate a license request form. Use the LonMaker license wizard if you use the LonMaker tool in your network, otherwise use the LNS license wizard. To use the license wizard, follow these steps:

You must generate the form on the computer that will have the license—you can send the e-mail request from a different computer

- a. Start the appropriate license wizard from one of the following locations:
 - LonMaker 3.1
 - Start > All Programs > Echelon LonMaker > LonMaker License Wizard
 - LonMaker Turbo (select one of the following two places)
 - LonMaker Design Manager Dialog—click the credit information in the dialog (usually green or red)
 - Start > All Programs > Echelon LonMaker > LonMaker License Wizard
 - LNS
 - Start > All Programs > Echelon LNS Utilities > LNS Server License Wizard

- b. Press the **Copy to Clipboard** button in the license wizard to save the generated license to the Windows clipboard.
- c. Paste (CTRL-V) the form to your request e-mail or attached document.
- d. Fully fill out the form as it will be automatically rejected without the company information.

Check all appropriate checkboxes [x].

- New Purchases
 - Change the number of credits on the form
 - Activation of pre-paid license.
 - Check pre-paid checkbox [x].
 - License/Credit Replacement
 - Include a summary of what happened
 - Including a screen shot or text file with the license state will help to speed up the replacement process.
 - Determine how many credits need to be replaced (see section 6 below for instructions). Once you use a device credit to commission a device, the device credit is used and is no longer required. Since your commissioned devices will still be commissioned after you lose your remaining device credits, Echelon only replaces your unused credits.
 - Change the number of credits on the form to the value you calculated.
- e. Send the e-mail to credits@echelon.com and CC Echelon support people who have worked on this current call.
 - f. Do not make changes to the network while you are waiting for the new Application Key. If the PC Key changes (see section 9 below) between sending your request and getting the Application Key, the new Application Key will not work and you will have to resubmit a newly generated form with all the information to credits@echelon.com again.

LonSupport does NOT forward license/credit requests to credits@echelon.com

6. How can I check my LonMaker and LNS license status (checklic results) and determine the number of available credits?

There are two ways to check the LonMaker or LNS licenses: LNS Utility or manually using **checklic** in a Windows command prompt.

- a. To use the LNS License Utility, see the following document:

[License Diagnostic Utility](#)

- b. To manually check your license by running checklic from a Windows command prompt.

LonMaker: Run **checklic lonmaker.vsl**

LNS: Run **checklic nsseng.exe**

LNS DDE Server: Run **checklic lnsdde.exe**

LonScanner: Run **checklic130 lpa.exe**

Notes:

- To enter a Windows command prompt, press the Windows key + R key; or go to the Windows Start menu type **cmd** or **command** and then press **OK**.
- To create a screen snapshot of the **checklic** window, select the window with your mouse, press ALT-PrintScreen to copy the screen to the Windows clipboard, open a Word document or e-mail message and press CTL-V to paste.

Following is an example showing a good LNS license (LNS License: **checklic nsseng.exe**).

```
C:\>checklic nsseng.exe
Echelon License Diagnostics Utility.
Copyright (c) 1992-2002 Echelon Corporation.
This tool is provided only for use by Echelon Technical Support
and LNS Setup.

SiteKeyVersion = 50
Initializing access to file path C:\WINDOWS\LNS Licenses\nsseng.exe
CrypKeyVersion = 5.7

Current License Status:
  oplevel          = 0xc
  restriction      = 2 (By Credits)
  num_allowed     = 564
  num_used        = 10
  num_copies      = 1
LNS Shared Options:
  deduction       = ENABLED
  deficits level  = 2 (500 credits)
  SDK             = TRUE

=====
Generating site code...
Site code/PCKey = D23A C1C1 0664 665E 5D
```

Following is an example showing a LonMaker license with -103 error (LonMaker License: **checklic lonmaker.vsl**).

```
C:\>checklic lonmaker.vsl
Echelon License Diagnostics Utility.
:
:
SiteKeyVersion = 50
Initializing access to file path C:\WINDOWS\LNS Licenses\lonmaker.vsl
InitCrypkey Error -103: NETWORK: REPLY FROM NETWORK DRIVER IS BAD
```

You can use the following calculation to find out how many credits you currently have:

$$\text{Num_purchased} - \text{num_used} = (\text{Num_allowed} - 500) - \text{num_used}$$

For example:

$$(564 - 500) - 10 = 64 - 10 = 54 \text{ unused_credits}$$

A negative (-) value for unused_credits mean that you have used more credits than you purchased and you have up to two weeks to order new credits or de-commission devices before the license times out.

The checklic results do not give you time information about timeout issues, so you cannot determine how long you have been in deficit credit mode. For timeout issues, determine the number of unused credits. If the unused credit value is a negative number than it means that you have used more credits than you purchased. If your license has been in deficit credit mode for two or more weeks the license will timeout.

7. How can I fix LNS Activation or License errors (see KB540 for more detail information)?

Knowledge Base article [KB540](#) provides detailed information on how to check and fix license failures. A summary of the information is provided below.

For credit replacements, see section 2 for information on how to determining how many replacement credits to request.

How to check and fix License errors: See [KB540](#)

- a. License Activation failure
Request replacement activation.
- b. "LNS License Failure", "LNS, #147", "NS, #147", "Licensed expired", "No Credits available", see [KB540](#)

- c. InitCrypKey Error -102: NETWORK: NETWORK DRIVER APPEARS TO NOT BE SERVERING THIS DIRECTORY
or
InitCrypkey Error -103: NETWORK: REPLY FROM NETWORK DRIVER IS BAD

See [KB546](#)

It is important to perform each step of this workaround as failure to do so will most likely mean that your license does not get fixed. In some cases you need to run the workaround two or three times to fix all subsequent problems.

- d. InitCrypKey Error -1: INITIALIZATION: FILE_NOT_FOUND, see [KB541](#)
- e. GetAuthorization Error -4: AUTHORIZATION NOT PRESENT

or

GetAuthorization Error -1: INITIALIZATION FAILURE

This -4 /-1 error is the default error you will receive when starting the LonMaker tool or an LNS Server for the first time after activation. The error will go away after you open an existing network or create a new network. If the error message stills shows up then see [KB545](#).

- f. GetAuthorization Error -14: RESTRICTION FILE BAD CRC, see [KB891](#)
- g. GetAuthorization Error -15: RESTRICTION FILE MOVED, see [KB548](#)
- h. BAD_PRODUCT_NAME

Request replacement credits.

8. What is an Application Key?

An Application Key is a sequence of characters used to change the state of the current LonMaker or LNS license. The Application Key is either automatically generated by Echelon when you submit your request or is provided to you by credits@echelon.com when you activate a LonMaker tool or request a license or credit replacement.

The PC Key generated when you fill out the activation or request form must match the new one generated when you get the Application Key. If they don't match you will not be able to use the new Application Key and you will have to request a new replacement Activation Key or replacement credits.

Do not use the LonMaker tool or any other LNS tool while you are waiting for the new Application Key.

9. What is a PC Key (shown in license form) and why does it change?

Each time you go into the License Wizard the software generates a PC Key. The PC Key is a sequence of characters based on your computer hardware configuration. The PC Key changes based on changes to your LonMaker or LNS databases (see the LonMaker or LNS user's guide) or changes to your hard drive. For example, if you delete a device or network database then the PC Key will be changed.

The PC Key generated when you fill out the activation or request form must match the new one generated when you get the Application Key. If they don't match you will not be able to use the new Application Key and you will have to request a new replacement Activation Key or replacement credits.

We recommend that you try not to use the LonMaker tool or any other LNS tool while you are waiting for the new Application Key.

10. Can I transfer a subset of my credits from one computer to another?

No, you can't transfer a subset of the credits on one computer to another computer. Existing credits on the new computer are deleted before adding the credits from the old computer. You can't transfer your LonMaker credits to LNS credits or vice versa.

When you transfer your credits from computer to another, you are transferring the license and all the unused credits from the old to the new computer. All credits on the new computer before the file transfer are deleted (basically lost) and replaced with the old computer unused credits. After the license/credit transfer the license on the old computer is deactivated and you will no longer be able to use LonMaker/LNS on that computer.

Make a copy of the current license status on both computers before doing the license transfer. For example, if you are transferring a license and credits from PC#1 (old) to PC#2 (new):

Before License Transfer:

PC#1 (45 unused credits, valid license) and PC#2 (60 unused credits, valid license)

After License Transfer:

PC#1 (de-activated, no longer useable) and PC#2 (45 unused credits, valid license)

11. How can I safely transfer my LonMaker license and credits or LNS license and credits to a different computer?

Make a copy of the current license status on both computers before doing the license transfer.

To safely transfer LonMaker credits, see [KB726](#)

To safely transfer an LNS license and credits to a different computer, see [KB768](#)

12. What are deficit credits?

Deficit credits are device credits that you have used that you have not purchased yet. That is, if you purchased 64 credits but have commissioned 70 devices on this computer (looking at all network databases on this computer) then you have used 6 deficit credits.

Once you have entered deficit credit mode, you have up to two weeks to purchase enough credits, or to de-commission enough devices to get out of deficit mode. After two weeks, if you have not purchased or returned sufficient credits, your license will timeout and you will need to purchase at least the number of deficit credits used before your license and program will work again.

13. Why does my LonMaker or LNS license time out?

Once the LonMaker or LNS license times out you will not be able to use the LonMaker tool or any LNS application with the LNS Sever, depending on which license timed out. This typically means that you have used more device credits than you have purchased and you have been in this state for more than two weeks.

Solution: When adding devices or networks to the computer, check the status of the license to see how many credits you have left. Make sure you use the LonMaker license wizard for LonMaker credits and the LNS License Wizard for LNS credits.

In LonMaker Turbo the Design Manager will show the credit information in red when you are in deficit credit mode.

14. Why do I lose LonMaker or LNS credits?

This usually happens due to deleting a device or network database without first de-commissioning the devices.

Solution: De-commission devices before deleting any devices or network databases.

This can also happen if you decommission more devices than the computer's current LonMaker or LNS license supports. The LonMaker or LNS license defines how many credits have been purchased for this computer. If you try and decommission more devices than have been purchased for the computer you will lose those extra credits. This problem usually occurs if you commission devices on one computer and then move the network database to another computer.

Solution: Determine how many device credits can be restored to the LonMaker or LNS license before decommissioning many devices. If you need to decommission more devices than the license supports then decommission a subset of the devices, and commission those or new devices instead of doing it all at one time.

To determine how many devices can be decommissioned check the LonMaker or LNS license status using **checklic** or the LNS License Utility (see section 6 for more details).

LonMaker: Run **checklic lonmaker.vsl**

LNS: Run **checklic nsseng.exe**

“Num purchased” - num_used = (Num_allowed – 500) – num_used

(564 – 500) – 10 = 64 – 10 = 54 unused_credits

If the value of **unused_credits** is a positive number then you can de-commission up to **num_used** amount (in the example, **num_unused** is 10). If you de-commission more than 10 credits then you will lose credits (e.g., if you de-commission 15 devices then you will lose 5 credits).

If the value of **unused_credits** is a negative number, then you are in deficit credit mode and you need to de-commission enough devices to get out deficit credit mode or purchase enough credits to get out of deficit credits. If you de-commission more devices than required to get out of deficit mode by a single credit, getting a **num_used** of 0 or 1 will cause you to lose credits. For example, if **unused_credits** = -12 and de-commission 16 credits, the 1st 12 de-commission device are used to get the license out of deficit credit mode and the last 4 credits are lost.

15. Can I install LonMaker on more than one computer?

You can install the LonMaker software twice, on either a physical or virtual computer, as long as both installations are for the same primary user, are not used at the same time, and only one installation is used to commission devices (that is, uses credits).

You can view the full LonMaker license by clicking the LonMaker icon (upper right-hand in the LonMaker Design Manger) and select **View License**.

16. Does re-installing/repairing the LonMaker software affect the LonMaker license and credits?

No, this has no effect on the LonMaker license and credits. LonMaker will continue to work afterwards. Some workarounds require you to delete or rename the LonWorks directory; this also has no effect on the LonMaker license or credits.