
License Operations for Loanable Licenses

There are several additional license operations you can use with loanable licenses:

Note—Not all solutions can use loanable licensing. See your OPNET account manager for more information.

Note—Loanable licenses are no longer offered with AppTransaction Xpert.

- Borrow Selected License (button)
- Extend On-Loan License (button)
- Return On-Loan License (button)
- Forcibly Return a Loaned License
- Change Authorized Loan Duration (button)
- Change Loan Properties (button)
- Change Loan Properties (Command Line)

Note—Only authorized users may borrow loanable licenses. All users are authorized by default and may be restricted as described in Restricting Loanable Licenses.

The following procedures cover common loanable licensing operations.

Procedure 3-45 Loanable Licensing Configuration

- 1 Install loanable licenses on a computer that is running as a License Server. The computer then acts as the “loaner” or “provider” for licensing.
 - Loanable licenses are marked with a special “L” symbol when you view them in the License Manager.
- 2 Configure the computer on which you wish to borrow a license (the “loanee” or “requestor”) to obtain licenses locally.
 - 2.1 Set to standalone mode, or
 - 2.2 Set to use licenses from local server.

Note—To change licensing modes, reinstall the latest software component of AppTransaction Xpert.

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- 2.3 Set the `license_managed_servers` preference on the loanee to include the loaner's hostname or IP address.

➡ This allows the loanee to look for the loaner in order to borrow, extend, and return loanable licenses.

End of Procedure 3-45

Borrow Selected License (button)

Borrows the selected license (which must be loanable) and adds it to the requested server's license file. Use the following procedure to borrow licenses.

Procedure 3-46 Borrow a Loanable License

- 1 Start the License Manager on the loanee computer.
 - 2 Click on the "+" next to "Other Servers on this IP Network".
 - ➡ The list of license servers appears.
 - 2.1 Locate the loaner's hostname (or IP address) in the list, and click on the "+" next to it.
 - ➡ The information and license file (closed folder icon) appears.
 - 2.2 Click on the folder to open the loaner's license file.
 - 2.3 Select the available loanable licenses that you wish to borrow.
- Note**—You can select multiple licenses by clicking and dragging or by using <CTRL>-click.
- 2.4 Click on the Borrow License button, and follow the on-screen instructions.
 - ➡ The licenses are transferred from the loaner to the loanee. They are automatically returned at the end of the loan period.

End of Procedure 3-46

Extend On-Loan License (button)

Extends the duration of the loan for the selected licenses. Use the following procedure to extend a loan.

Procedure 3-47 Extend the Loan Period for a Loanable License

- 1 Start the License Manager on the loanee machine.

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- 2 Open the loanee's license file in the license manager treeview, and select the licenses which you want to extend.

Note—You can select multiple licenses by clicking and dragging or by using <CTRL>-click.

- 3 Click the Extend On-Loan Licenses button and follow the on-screen instructions.

➡ The loan duration is extended.

End of Procedure 3-47

Return On-Loan License (button)

Returns the selected licenses to the servers that provided them. Normally, a borrowed license will automatically disappear from the requester's license file and become available again in the provider's license file at the end of the loan period. Use Procedure 3-48 to return a license before the end of the loan.

Procedure 3-48 Return a Loaned License

Note—On-loan licenses are automatically returned at the end of the loan period. If you would like to return the licenses to the loaner earlier, follow these steps.

- 1 Start the License Manager on the loanee machine.
- 2 Open the loanee's license file in the treeview, and select the licenses that you want to return.

Note—You can select multiple licenses by clicking and dragging or by using <CTRL>-click.

- 3 Click the Return On-Loan Licenses button.

➡ The licenses are returned to the loaner so that others may use or borrow them.

End of Procedure 3-48

Forcibly Return a Loaned License

In rare circumstances, the License Manager may show a license as being “loaned out” to another license server, but in reality the license never made it to the other computer. When this happens, you must forcibly return the loaned-out license.

Procedure 3-49 Forcibly Return Loaned License

- 1 From the loanee computer, start License Manager.
- 2 Verify that the loanee's License Server is set as the Default License Server and is operating correctly. A green dot should appear next to the License Server.

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- 3 Verify that you can see the loaner License Server in the “Other license servers on this IP network” section.

Note—If you do not see the License Server, add it by using the `license_managed_servers` preference. For more information, see `license_managed_servers` on page AG-3-111.

- 4 Open the license file folder of the loaner machine, and click on the license of interest.
- 5 Select Tools > Forcibly return loaned-out license.
- 6 Verify the license is returned.
- 7 Close License Manager.

End of Procedure 3-49

Change Authorized Loan Duration (button)

Assists you in contacting technical support to change the length of time for which a license can be loaned.

Change Loan Properties (button)

Changes the maximum number of days for which the selected loanable license can be borrowed. The maximum value set here cannot exceed the authorized loan duration of the license. Use Procedure 3-50 to change the loan properties.

Procedure 3-50 Changing Loan Properties

- 1 In the server treeview, select one or more loanable licenses. The selected licenses must be available to be loaned (green license icon with an “L”).
- 2 Click the Change Loan Properties button.
- 3 In the Extend Loan Period Allowed dialog box, enter the maximum number of days for which the selected licenses can be borrowed, and click Continue.
 - ➔ The License Manager changes the loan period for the selected licenses and displays a dialog box with the results of the operation.
- 4 Click Close.

End of Procedure 3-50

Change Loan Properties (Command Line)

You can change loan properties from the command line, using the following procedure.

Procedure 3-51 Changing Loan Properties through `op_license_util`

- 1 Log in to the computer where the License Server is running (i.e. the loaner machine).

- 2 Open a console.

- Windows: Start > Programs > OPNET AppTransaction Xpert 17.0 > OPNET Console
- Linux: Open a cshell.

- 3 Type `op_license_util` at the prompt.

➡ A banner and general information appears, followed by

```
To display a list of commands, enter the "help" command.  
manager>
```

- 4 Enter the command "loan_properties" at the manager prompt.

```
manager> loan_properties
```

➡ The following text and prompt appear.

Note—The only modifiable property is the maximum loan duration of loanable licenses.

```
Enter a license ID (ex: 100/1), range of license IDs (ex: 100/1-3), or "all".  
License ID >
```

- 5 Enter the license IDs for which you want to make the change.

➡ The following lines appear:

```
Enter maximum duration (between 0 and 10 days) [or "cancel"]  
Maximum duration >
```

- 6 Enter the maximum duration. This is the maximum amount of time a user may borrow a license.

➡ The following line appears.

```
Maximum loan duration change complete.
```

Note—You may view the changes either by typing the command `permit_info` at the manager prompt or by viewing the license status in the License Manager.

End of Procedure 3-51

Troubleshooting Loanable Licensing

If you have problems with loanable licensing, consider the following troubleshooting tips.

Accessibility Can the loanee ping the loaner? Can the loaner ping the loanee? Make sure you are pinging the same name or IP address specified in the `license_managed_servers` preference.

Preference Settings Make sure the `license_simple_loanable_enable` preference is set to TRUE. It is TRUE by default.

Restricting Loanable Licenses

You can restrict those who can borrow particular licenses by creating a loan authorization file (`loan_auth`) on a license server. This file lists specific machine-user pairs and the licenses they are authorized to borrow. Users contacting a license server that has a `loan_auth` file will be allowed to borrow only those licenses authorized for them and the machine to which they are logged in.

Note—Loanable license are not available for every solution. For more information, contact your OPNET account manager.

Note—Loanable licenses are no longer offered with AppTransaction Xpert.

WARNING—If you do not create a user authorization file, any user from any machine may obtain licenses and run applications.

The loan authorization file is a text file with the format:

```
<machine> <user> <licenses>
...
<machine> <user> <licenses>
```

Machine and user are specified as described in Restricting License Server Administration. The `<licenses>` specification gives a license number or range of license numbers to which a machine-user pair has access. Licenses are identified by license number; contiguous license numbers can be given as a range. For example, if the following loan authorization file resides on a license server

```
engineering1 root 1000/1-10
ww_NT wwilson 1000/3
+ + 1002/1
```

then the following loans are authorized from that server:

- any user logged in as `root` on `engineering1` can borrow any license in the range 1000/1 to 1000/10
- `wwilson`, logged into `ww_NT`, can borrow only license 1000/3
- any user, logged into any machine, can borrow license 1002/1

No other machine-user pairs can borrow licenses from this server, and no other licenses can be loaned by the server.

Name the loan authorization file as `loan_auth` and place it on the license server for which you want to restrict license loans, in the same directory as the license file:

Windows: `<primary_hard_drive>:\OPNET_License\`

Linux: `/opt/OPNET_license/`

If you are administering a remote license server that has a `loan_auth` file and are connected from a machine that is not allowed to borrow licenses from that server, some of the licenses might not appear as being loanable even though they really are.