System .lic license files

Subtopics

1. Find out HostID and HostName
2. Editing .lic license files

System `*.lic` licenses enable you to scale test system capabilities, such as speed and memory.

All `*.lic` license files reside by default in the `/opt/flexlm/license` directory on both the license client and the license server.

The system `.lic` license file on the client provides the hostname or IP address of the license server for SmarTest and the dedicated vendor daemon value (For Advantest SmarTest, the vendor daemon value is `socbu`). The vendor daemon value specifies that this license file is associated with the `socbu` vendor daemon.

To receive a system `*.lic` license file, you must activate the corresponding license. For details see Activating licenses.

> Note: Service and Support (S&S) licenses do not need to be activated.

Checking out licenses from a license server

The procedure for checking out licenses is:

- At startup, SmarTest reads the test program file and resolves the requested capability into required licenses.
- Next, the `*.lic` license files in the `/opt/flexlm/license` directory on the same workstation are read. The `*.lic` license files specify the hostname of the license server, which can be the same workstation in the case of a local license server, or another workstation in the case of a central license server. See Editing .lic license files.

- Finally, SmarTest contacts the license server to check if the required licenses are available:
  - Available: the licenses are checked out and the features enabled.
  - Not available: SmarTest runs the script `license_checkout_failure.`

> Note: Base capabilities are always available, even without licenses.

Returning licenses to a license server

Licenses are automatically returned the license server when SmarTest is shut down.

Related information

Activating licenses

Editing .lic license files

Find out HostID and HostName

This topic describes how to find out the HostID and the HostName of the license servers for license activation.

About this task

> Note: This topic is applicable to SmarTest 7 and SmarTest 8.

To activate license you need the following information:

- **Entitlement** Certificate
- **HostID** of the license servers
- **HostName** of the license servers

Procedures

Find out HostID

FLEXlm binaries are installed

1. Login to as user root: `su root` and enter the root user password.
2. Open a terminal window.
3. Type:
   `/opt/flexlm/bin/lmutil lmhostid -n`

FLEXlm binaries are not installed

The HostID is an 8 digit hexadecimal number (HP-UX or Solaris) or a 12-digit hexadecimal number (Linux). Select from one of the following commands, depending on your OS.

Sun Solaris

1. Log in as root and open a terminal window.
2. Type:
   `/usr/bin/hostid`

Linux

1. Login to as user root: `su root` and enter the root user password.
2. Open a terminal window.
3. Type:
   - **Linux RHEL 5**
     `/sbin/ifconfig eth0 | grep HWaddr | sed 's/://g' | awk ' {print $NF} '`
   - **Linux RHEL 7**
     `/sbin/ifconfig eno1 | grep "ether" | sed 's/://g' | awk ' {print $2} '`

Find out HostName

Sun Solaris

1. Log in as root and open a terminal window.
2. Type:
   `/bin/hostname`

Linux

1. Login to as user root: `su root` and enter the root user password.
2. Open a terminal window.
3. Type: `/usr/bin/hostname`

What to do next

Activating licenses

Related information

Install a floating license file

FlexNet licensing

License clients and license servers

Editing .lic license files

This topic describes how to edit FlexNet Publisher license server related license files (.lic files).

About this task

> CAUTION: The editing instructions below only apply to license files referring to a license server. Service and support license files have a different structure and must not be edited.

The `.lic` license files must reside in the `flexlm` license directory `/opt/flexlm/license/` for both license servers and clients.

The server `.lic` license file must provide the server hostname and the correct vendor daemon ("`socbu`").

The `.lic` file on the license server provides the actual license, while the corresponding client `.lic` file can contain an additional USE_SERVER statement used to specify the associated license server. When SmarTest reads the USE_SERVER statement from the client `.lic` file, it ignores everything else in the license file except the preceding SERVER lines and transfers license control to the specified license server. The USE_SERVER statement takes no arguments and should be used in client license files only.

Advantest strongly recommends adding the USE_SERVER statement to client `.lic` files. When using a central license server, the USE_SERVER statement improves performance compared with setting the LM_LICENSE_FILE environment variable.

> Note: For information about license server installation, see the section **License server setup.**

Procedures

Server license files

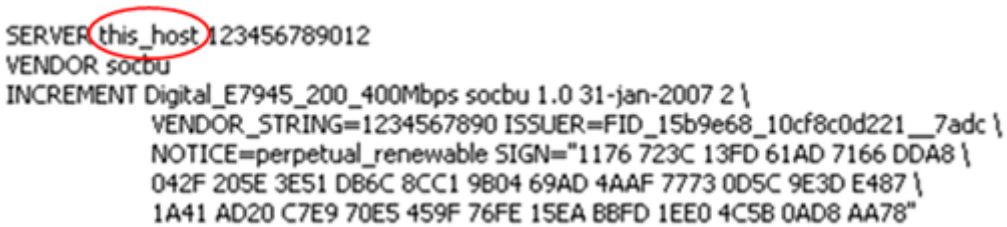
To edit `.lic` license files on a server system:

1. Copy the `.lic` license file you received to the `/opt/flexlm/license/` directory on the license server system.

2. Open the `.lic` license file in an editor.

3. The SERVER statements specify the hostname and host IDs of the license server systems and the TCP/IP port number of the license server manager (`lmgrd`).

   In the **SERVER** statement, replace the server hostname placeholder string **`this_host`** with the hostname of the license server.
   The graphic below shows the server string to be replaced.



4. Also in the **SERVER** statement, replace the server host ID placeholder string `123456789012` with the actual host ID of your license server (and optionally the port number of your license server).

> Note: For more information about querying the license server hostnames and host IDs, see **Find out HostID and HostName.**
> <host_name> = The license server hostname or IP address returned by the `hostname` command.
> <hostid> = The string returned by the `lmhostid` command.
> `[port]` = TCP/IP port number to use.

If a port must be specified (check with your network administrator), the syntax is as follows:

- `SERVER <host_name> <hostid> [port]`, for example: `SERVER MyLicSvr 8502053d1905 27000`
- `VENDOR socbu [port]`, for example: `VENDOR socbu PORT=27020`

> Note: If no port is configured, the client automatically checks all ports from 27000 to 27009. Any other ports must be specified.

Normally a license file has one SERVER statement. Three SERVER statements signifies that you are using a three-license-server redundancy configuration. See **License clients and license servers**. In a three-license-server configuration you must edit all three SERVER statement entries.

5. The VENDOR statement specifies the daemon name and should be as follows: `VENDOR socbu` .

Client license files

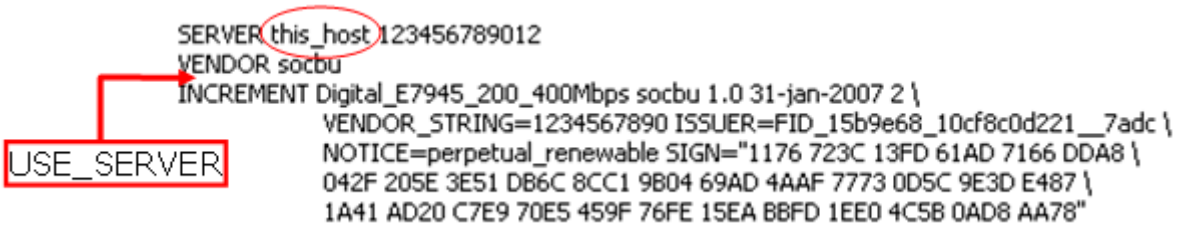
To edit `.lic` license files on a client system:

1. Copy the `.lic` license file you received to the `/opt/flexlm/license/` directory on the client machine.

2. Open the `.lic` license file in an editor.

3. The SERVER statements specify the hostname and host IDs of the license server systems and the TCP/IP port number of the license server manager (lmgrd).

   In the SERVER statement, replace the server hostname placeholder string `this_host` with the hostname of the license server.
   The graphic below shows the server string to be replaced.



4. Also in the **SERVER** statement, replace the server host ID placeholder string `123456789012` with the actual host ID of your license server (and optionally the port number of your license server).

   > Note: For more information about querying the license server hostnames and host IDs, see **Find out HostID and HostName.**
   > `<host_name>` = The license server hostname or IP address returned by the `hostname` command.
   > `<hostid>` = The string returned by the `lmhostid` command.
   > `[port]` = TCP/IP port number to use.

   Normally a license file has one **SERVER** statement. Three **SERVER** statements signifies that you are using a three-license-server redundancy configuration. See License clients and license servers. In a three-license-server configuration you must edit all three SERVER statement entries.

5. The **VENDOR** statement specifies the daemon name and should be as follows: `VENDOR socbu.`

6. The **USE_SERVER** line in the client license file ensures that the requested license features are obtained from the specified license servers. The license file on the client no longer needs to be in sync with the license file on the server and may even not contain any license information.
   Enter the **USE_SERVER** statement. It takes no arguments.

   > Note: For standalone systems with a local license server, the **USE_SERVER** statement is not necessary as both client and server use the `/opt/flexlm/license/* directory`. Therefore, the server license file automatically specifies the server for the client (`<host_name> = localhost`).

7. **Optional:** In the client `.lic` file only, any license strings below the USE_SERVER keyword are ignored and can be removed. Only the licenses on the servers specified in the **SERVER** lines are read.

Related information

[License clients and license servers]

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