

# FlexNet Embedded license server setup

## Subtopics

1. [Setting the hostname of a system controller](#)
2. [Single FNE License server installation, upgrades and updates](#)
3. [Failover license server installation, upgrades and updates](#)
4. [Registering the license server](#)

FlexNet Embedded license servers are implemented to provide activated licenses to SmarTest system controllers.

## Introduction

Installing a FlexNet Embedded license server able to provide the activated licenses requires three steps:

- Installation of the license server software on the host system
- License server registration
- License activation

The FNE license server, when installed in conjunction with the FNP2FNE proxy, can manage both FNE and FNP licenses for all supported SmarTest versions (SmarTest 5, 6, 7 and 8), and includes new features such as self-rehosting for SmarTest 5, 6 and 7 (FNP) license servers.

## Prerequisites

Make sure that the system hosting the FlexNet Embedded license server meets the following Prerequisites:

Hardware minimum configuration:

- Quad core CPU
- 8 GB RAM
- 12 GB free hard disc space FNE, plus 12GB for FNX/FNP if used.

Operating system configuration:

- Red Hat Linux  $\geq$  9.0, 7.2 - 7.9, Rocky Linux  $\geq$  9 or CentOS 7.2 - 7.9.
- Available user with unrestricted sudo access.
- Ports 7070 and 7077 may not be used by other applications.  
If FNX is installed, ports 27000, 27019, and 27020 must not be used by other applications.
- Java 8 - Oracle Java or OpenJDK
- License server must use fully qualified hostname (command `hostname -f` must not return `localhost`)

## Checking the availability of ports 7070 and 7077

Ports 7070 and 7077 must not be in use by other applications.

To check this, enter in the bash shell (if you use ksh, you can open a bash shell with enter `/bin/bash` on the command line):

```
&> /dev/null < /dev/tcp/localhost/7070 && echo INUSE
```

```
&> /dev/null < /dev/tcp/localhost/7077 && echo INUSE
```

In addition, if FNX is used for FNP license management, ports 27000, 27019, and 27020 must not be in use by other applications.

To check this, enter in the bash shell (if you use ksh, you can open a bash shell with enter `/bin/bash` on the command line):

```
&> /dev/null < /dev/tcp/localhost/27000 && echo INUSE
```

```
&> /dev/null < /dev/tcp/localhost/27019 && echo INUSE
```

```
&> /dev/null < /dev/tcp/localhost/27020 && echo INUSE
```

If no response message is displayed, the port is not in use.

If the response `INUSE` is displayed, the port is in use.

If port any of these ports are in use, either use a different server to host the FNE license server or get in contact with your administrators (customer IT) to identify the application and remove it from the server to be used for the FNE license server.

The `lsof` `lsof` command can be used to find processes using a particular port. For example, the following command returns information of the process using port 7070:

```
sudo lsof -i tcp:7070
```

Example output:

```
COMMAND PID USER FD TYPE DEVICE SIZE/OFF NODE NAME
java 11381 flexnetls 40u IPv6 56027 0t0 TCP *:arcp (LISTEN)
```

Note: The installation of an FNE license server opens all required ports in the firewall (7070, 7077, 27000, 27019 and 27020).

## Checking the availability of port 443

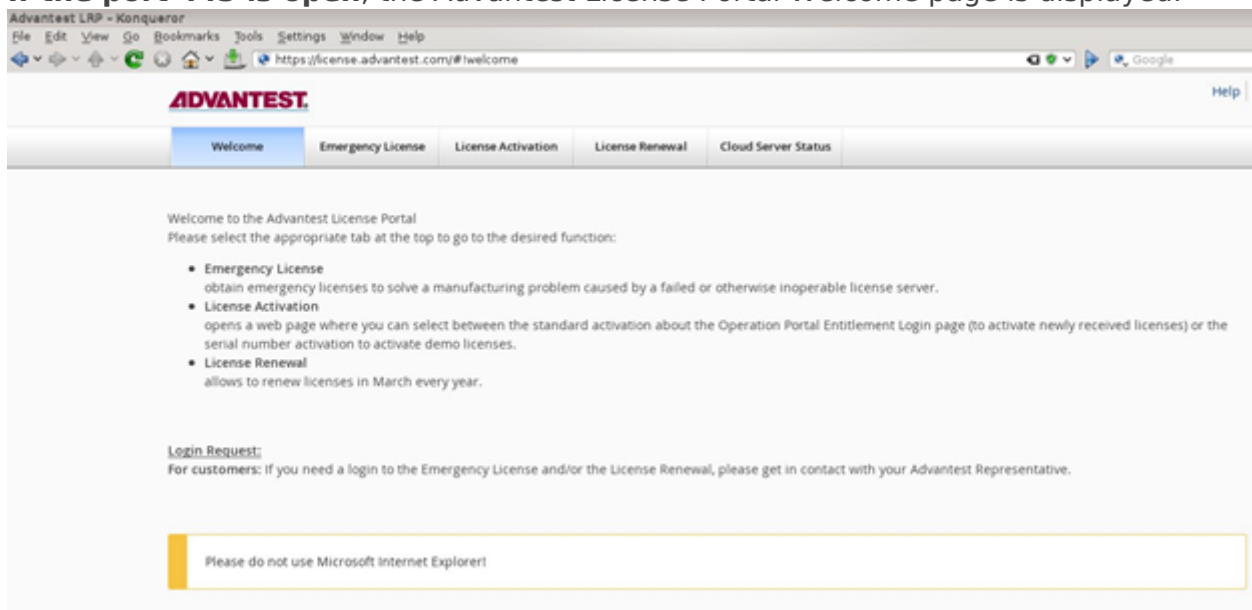
If your FNE license server is to have an online connection to the Advantest Licensing Back-Office, you need a connection to the internet for outgoing connections (FROM the license server to the internet). To check if access is available before you install the FNE license server.

Note: You do not need to check the availability of port 443 if you will only be communicating offline with the Advantest Licensing Back-Office (exchanging files as opposed to an Internet connection).

Do the following to check if port 443 is open on your FNE license server:

1. Open a browser.
2. Enter the URL: <https://license.advantest.com/>.

**If the port 443 is open**, the Advantest License Portal Welcome page is displayed:



The screenshot shows a web browser window displaying the Advantest License Portal. The browser title is "Advantest LRP - Konqueror" and the address bar shows "https://license.advantest.com/#!welcome". The page features the Advantest logo at the top left and a navigation menu with tabs: "Welcome", "Emergency License", "License Activation", "License Renewal", and "Cloud Server Status". The "Welcome" tab is selected. The main content area contains the following text:

Welcome to the Advantest License Portal  
Please select the appropriate tab at the top to go to the desired function:

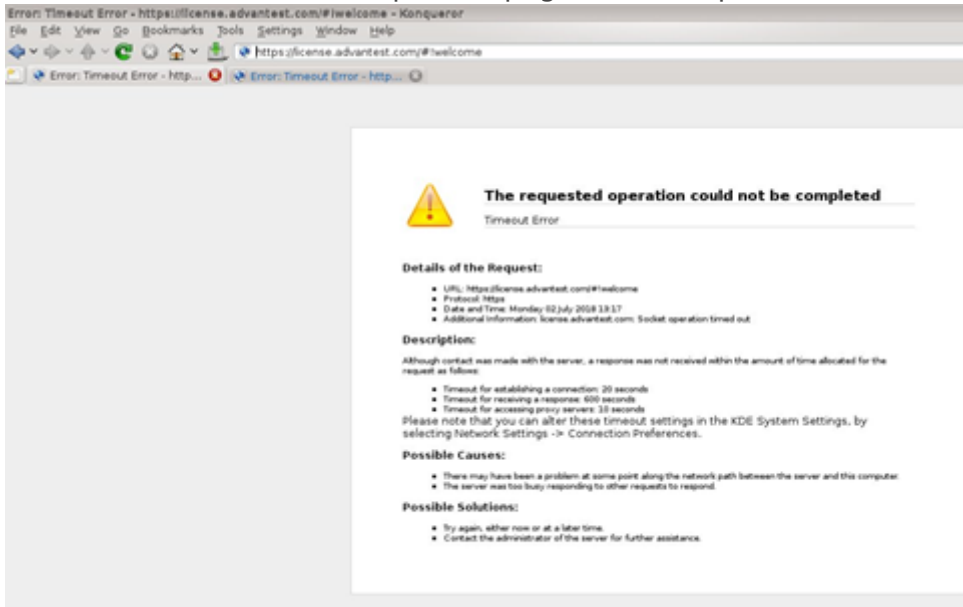
- **Emergency License**  
obtain emergency licenses to solve a manufacturing problem caused by a failed or otherwise inoperable license server.
- **License Activation**  
opens a web page where you can select between the standard activation about the Operation Portal Entitlement Login page (to activate newly received licenses) or the serial number activation to activate demo licenses.
- **License Renewal**  
allows to renew licenses in March every year.

**Login Request:**  
For customers: If you need a login to the Emergency License and/or the License Renewal, please get in contact with your Advantest Representative.

A yellow box at the bottom of the page contains the text: "Please do not use Microsoft Internet Explorer!"

**If port 443 is not open**, an error message page is displayed informing of a timeout or

failure to connect to the requested page, for example:



3. If you require an internet connection to the Advantest Licensing Back-Office, get in contact with your administrators (customer IT) and request that port 443 is opened.

## Checking the date and time settings

It is important to have the correct date and time set on the workstations and license servers. The Network Time Protocol (NTP) can be used to synchronize the clocks of computers with a reference time source over a network. For details on how to synchronize the date and time settings using NTP, see [Network time protocol configuration](#).

## Network configuration

For a license server to start, the server workstation must be set up for networking.

For a local license server installed on the system controller that is not connected to a network, a few prerequisites must be considered. The system controller must have a Fully Qualified Domain Name (FQDN). As a result, the `/etc/hosts` file must have an entry of the form:

```
ip address hostname.domainname hostname
```

For example: `192.168.0.15 server123.mycompany.com ws123`

For more details about setting hostnames, see [Setting the hostname of a system controller](#).

# Next steps

If the prerequisites are met, start the installation of the FNE license server as described in the appropriate topic:

- [Failover license server installation, upgrades and updates](#)
- [Single FNE License server installation, upgrades and updates](#)

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