FNE / FNX troubleshooting

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Where are the log files?

You can find the **log files** in the following folders for

- **FNE server:** `/var/opt/flexnetls/socbu/logs > filename flexnetls*.log*` and `flexnetls.critical.log`
- **FNE server viewer:** `/var/opt/flexnetls/viewer/logs > filename fne-viewer.log*`
- **Proxy:** `/opt/flexlm/log > filename proxy_socbu*.log`

How to update FNX/FNE license servers' software?

See also - Failover license server installation, upgrades and updates.

It is the advantage of the FNE/FNX server, that an update works without downtime. Do the following steps:

> **Note**: If there is not a failover or tertiary server existing, you can skip the steps accordingly.

1. **Test the integrity** of the downloaded SW on the primary license server:

   `sh install-fne-<date>-<version>.sh test`
   If you get the message "Package integrity verified" you can proceed with the other steps.

2. Get emergency license for standby emergency license server and install it - just to be prepared

3. **Primary server**: Do a dry-run installation on the primary server and look for messages. Example for the dry-run command:
   `sudo sh install-fne-<date>-<version>.sh dry-run`

4. **Primary server**: If there are not any problems reported with the dry-run, do the update on the primary server. Example for the update command (no option used):
   `sudo sh install-fne-<date>-<version>.sh`

5. Check e.g. with `fne-status`, that the primary server is running.

6. Wait 2 minutes.

7. **Failover server**: Do the update also on the failover server. See command above.

8. Check e.g. with `fne-status`, that the failover server is running.

9. Wait 2 minutes.

10. Check with `fne-status`, if the FNE failover and (if installed) FNP triad is up again.

11. **Tertiary server**: Do the update also on the tertiary server.

12. Check e.g. with `fne-status`, that all servers are running.

If there are any problems, please check, if a switch to the standby emergency license server is reasonable and open a LIST ticket to report the problem.

FNE registration problems

Error "Connection to https://license.advantest.com/flexnet/deviceservices failed with exception"

Issue description:

The user tried command

`register-fne-server <id>`

with the appropriate <id> and got the following error message:

> “
> Failed to activate your server
> \
> "key" : "glsErr.connectionFailed",
> "message": "Connection to
> https://license.advantest.com/flexnet/deviceservices failed with exception:
> exception: error on POST request for \ \"https://license.advantest.com/fL
> exnet/deviceservices\": Connection reset; nested exception is
> javax.net.ssl.SSLException: Connection reset,*
> : ["https://license.advantest.com/flexnet/deviceservices, I/0 error on POST
> request for \"https://license.advantest.com/flexnet/deviceservices\": Connec
> tion reset; nested exception is javax.net.ssl.SSLException: Connection
> reset]*

Background information:

The connection to license.advantest.com with port 443 was not really available, but for the FNE server software it looked like that a connection is possible, therefor it tried and failed.

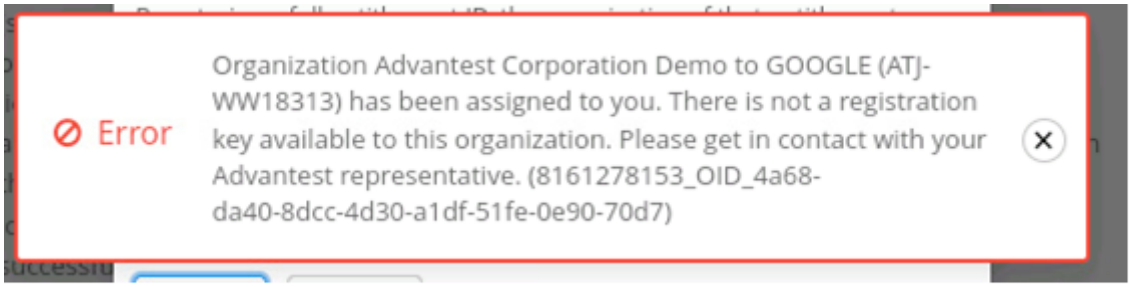
Solution: Enter the line

`0.0.0.0  license.advantest.com`

to file `/etc/hosts.`

Error "No registration key available to this organization"

This error message can occur during the activation of demo licenses. Demo organizations do not have a registration key assigned. To obtain a valid registration key, the user must be assigned to an alternative organization within the same company that has a registration key available.



FNE log file: errors and messages

Installation problems - error "/tmp/: failed to map segment from shared object: Operation not permitted"

Creation date: 08-Jan-2020
Author: Heike Klein

Issue description: The FNE server has been installed but cannot be started.
Log file error in `/var/opt/flexnetls/socbu/logs/flexnetls.log.<date>` - highlighted in red:

> 00:02:49,408 **advantest-fne-server start**
> 00:02:55,431 Used Options: /usr/lib/jvm/java-1.8.0-ibm-1.8.0.5.40-1jpp.1.el7.x86_64/jre/bin/java -Dbase.dir=/var/opt/flexnetls/socbu -Djsse.enableSNIExtension=false -server -Xms2g -Xmx2g -XX:CompressedClassSpaceSize=64m -XX:MetaspaceSize=256m -XX:+UseG1GC -XX:NewRatio=3 -XX:MaxGCPauseMillis=75 -XX:G1HeapWastePercent=10 -XX:InitiatingHeapOccupancyPercent=75 -XX:+CMSScavengeBeforeRemark -XX:+IgnoreUnrecognizedVMOptions --add-opens=java.base/java.lang=ALL-UNNAMED --add-opens=java.base/java.lang.invoke=ALL-UNNAMED -XX:+ScavengeBeforeFullGC -Djava.security.egd=file:/dev/./urandom -jar /opt/flexnetls/socbu/flexnetls.jar -server-alias thbnk01fnxspl1v.th-bnk01.nxp.com -producer-settings /opt/flexnetls/socbu/producer-settings.xml -port 7070 -https-client-configuration /var/opt/flexnetls/socbu/outgoing-certs.conf
> 00:02:55,438 Environment: Version 2019.07.1.0-19315 / 7.6GB mem / 3.1GB disk free / 4x Intel(R) Xeon(R) CPU E5-2667 v3 @ 3.20GHz / Red Hat Enterprise Linux Server release 7.6 (Maipo)
> 00:02:58,835 INFO main Starting FlexNet License Server 2019.07 (build 256892)
> 00:02:58,836 INFO main Copyright (C) 2013-2019 Flexera Software LLC.
> 00:02:58,836 INFO main All Rights Reserved.
> 00:02:58,836 INFO main Running as a service
> 00:03:02,575 **ERROR main Native code loading error**

> **java.lang.UnsatisfiedLinkError: /tmp/llsnc-2019.07.1.0-256892-amd64-libconnector.so(/tmp/llsnc-2019.07.1.0-256892-amd64-libconnector.so: failed to map segment from shared object: Operation not permitted)**
> at java.lang.ClassLoader.loadLibraryWithPath(ClassLoader.java:1453)
> at java.lang.System.load(System.java:570)

Reason for error:
the servers tries to use/exceute a shared library located in the /tmp directory. This is not allowed on the appropriate system. Running executables from /tmp is forbidden by the noexec option in the mount flags: check the /etc/fstab entry which looks like

> /dev/mapper/vg00-tmp /tmp ext4 defaults,nodev,nosuid,noexec 1 2

Solution:
Ask IT to remove the `noexec` option to `/tmp` in `/etc/fstab` and remount it with `mount -o remount,exec /tmp`
on all affected FNE license servers.

server filter checkout rejection

In the FNE log file flexnetls.log you maybe find the following message:
`server filter checkout rejection`
This message is basically saying the license requested is not available, f.e. for a specific serial number.
This is not an error of the server, its just the way the server returns a request for a license that is not present.

TS storage corrupted - FNE server cannot be started - FNE log error "FATAL main IO Exception: null"

In the FNE log file flexnetls.log you find the following entries:

03:36:16,826 INFO main Starting FlexNet License Server 2019.07 (build 256892)

03:36:16,827 INFO main Copyright (C) 2013-2019 Flexera Software LLC.

03:36:16,827 INFO main All Rights Reserved.

03:36:16,827 INFO main Running as a service

03:36:21,736 FATAL main IO Exception: null [90028-196]

> Note: you can extract the log file errors with command: `showlog-fne-server -2`

The error indicates a corrupted TS storage. In order to repair it, do the following:

1. `cd /opt/flexnetls/socbu`
2. `sudo ./reset-fne-server -force`
3. **If there is a failover license server configured** you need to run the following command **(not as root!)** on the primary license server **`./fne-failover-setup repair primary <failover_host.domain>`**
   This will repair the primary license server without touching the secondary license server.
   > Note: the repair option is available since June 2020. It is not available if an older FNE/FNX installation script has been used and the SW has not been updated since then. Please check with fne-failover-setup -help if the option is available.
4. **If the failover server is corrupt**, then you need to run the following command **(not as root!)** on the primary license server (this is not a typo - **you need to run it on the primary license server!**): **`fne-failover-setup repair failover <failover_host.domain>`**
   > Note: The command `fne-failover-setup uses ssh/scp` and `sudo`. You may be asked for your password several times.

> Note: you can check the help page of `fne-failover-setup` with: `fne-failover-setup -help`

What is /var/opt/flexnetls/socbu/flexnetls_licenses.mv.db and can it be deleted?

/var/opt/flexnetls/socbu/flexnetls_licenses.mv.db is the database of the FNE server and should not be deleted at all.

What is directory /var/opt/flexnetls/socbu/logs/ used for and can it be deleted?

/var/opt/flexnetls/socbu/logs/ contain the **log files** of the FNE server and is needed for analysis if something is going wrong. The logs directory is always around 12GB big: it is cleaned up to 10GB each day and on head is the up-to-date log file.