11.12, 11.14, 11.16

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Related resources

Choosing the Flexnet server manager

There are three types of the FlexNet server managers.

> - *lmadmin* – a web-based license server manager with GUI (recommended).

We recommend using *lmadmin*.

> - *lmgrd* – a license server manager with a command-line interface.
>
> - *lmtools* – the old Windows based server manager (replaced by lmadmin).

> ⚠
> - **lmadmin installer comes only in 32 bit architecture (regardless of the version)**
>
> - 11.12.1 version license server utilities (except lmadmin installer) come in 32/64 bit architectures

Prerequisites

> - **11.14 version license tools are not available in 64 bit binaries only 32 bit tools are available (additional 32bit libraries need to be installed in the 64bit multi-arch system to execute them)**

- You have the license owner account credentials
- If your operating system is **Windows**:

> ⓘ To use *lmadmin* on Windows platforms, the Microsoft Visual C++ 2008 Redistributable Package (x86) must be
>
> installed. You have an option to install this package during the FlexNet Publisher License Server Installer process.

  - You can run *lmadmin* (11.12.1) on officially supported platforms:
    - Windows 8
    - Windows Server 2012
    - Windows Server 2008
    - Windows 7 (Ultimate)
    - Windows Vista (Ultimate)
  - You can run *lmadmin* (11.14) on officially supported platforms:
    - Windows 10
    - Windows Server 2008, including SP1, SP2, and R2
    - Windows 8
    - Windows 8.1
    - Windows 7, including SP1
    - Windows Server 2012 R2
    - Windows Server 2012

- If your operating system is **Linux**:
  - For 32bit systems it is recommended to use 32bit *lmadmin* or 32 bit *lmgrd*
  - For 64 bit multi-arch systems it is recommended to use 32bit *lmadmin* and 64bit *lmgrd*
  - You have to have *glibc* libraries installed corresponding to your operating system architecture.
  - You have to create a non-root system user with root privileges and install/run the server tools using it:

> ⚠

  - If your operating system is **32 bit Linux**:
    - It is recommended to use 32 bit *lmadmin* installer, or 32 bit *lmgrd*
    - You have to install the Linux Standard Base (LSB) library.

> ⚠

This can be achieved either by:

1. Add

○ If your oper

■ For version 11.12.1 we recommend either using the 32 bit *lmadmin* installer(for multi-arch systems), or the 64bit *lmgrd*.

Method 1 (Ubuntu based):

```
sudo
sudo u
```

11.14 lmadmin/lmgrd binaries are not available.

Method

```
Modi
```

Check if LS

```
#Create a user called "newuser"
[root@
[root@
#Edit
```

For Ubuntu:

```
sudo apt-get install lsb-core
```

Installing 32 bit *lmadmin* on a multi-arch machine will require the 32bit libraries.

For recent Ubuntu:

Both of them require 32 bit librarires. Install it using:

For recent Ubuntu:

For older Ubuntu use:

```
sudo apt-get install libc6-i386
apt-get update
sudo apt-get install lsb-cor
```

lmgrd for multi-arch systems. **64 bit**

In order to query which lsb library is required for a particular Centos version, the following command can be executed:

It is a best practice to run license servers on a server based OS.

```
sudo apt-get install libc6-i386 libncurses5-i386 libstdc++6-i386
```

For more information about FlexNet, see:

FlexNet License Administration Guide by Flexera Software, Inc

```
sudo
```

For Redhat/CentOS/Fedora:

- License Administration Guide. FlexNet Publisher 2014 R1 (11.12.1)

Installation procedure

- License Administration Guide. FlexNet Publisher 2019 R2 (11.16,4)

```
sudo yum install redhat-lsb-core.i686
```

1. Download the FlexN

```
sudo apt-get install lsb-core
```

Log in with license owner credentials, if prompted.

For Redhat/CentOS/Fedora:

2. Install the server manager.

```
sudo yum install redhat-lsb-core
```

⚠

3. Download the vendor
4. Place the Vendor daemon into the FlexNet server installation folder. If you use *lmadmin*, do the following:
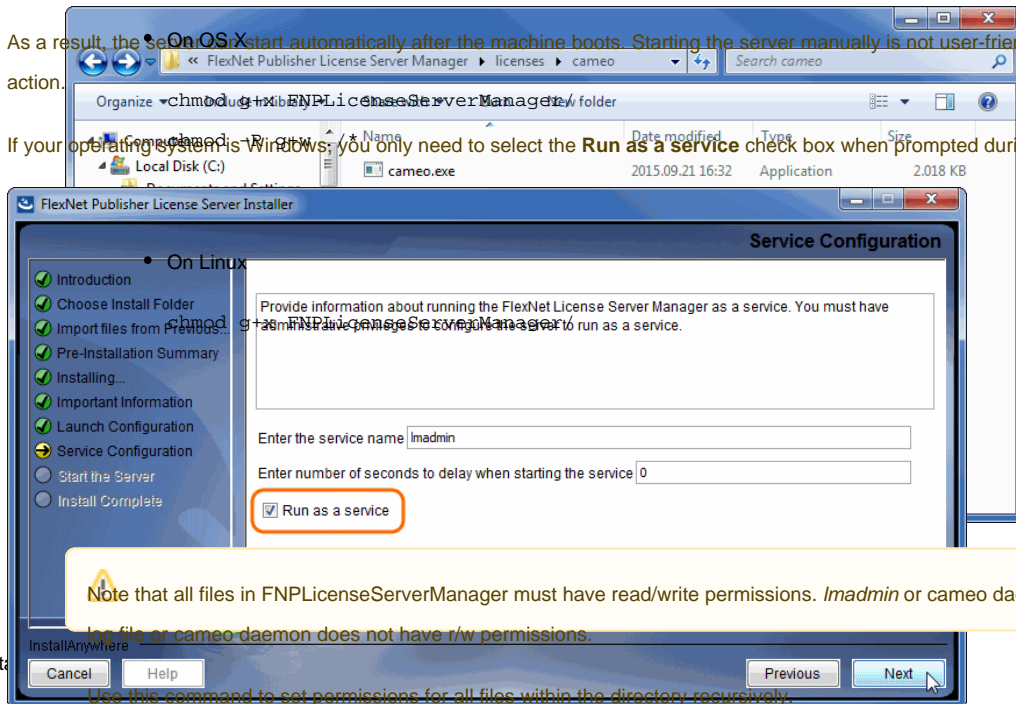
   a. Open the FlexNet server installation folder.

   ⚠ **For OS X and Linux users**

   b. In the open folder, create the *licenses\cameo* folder.

We highly recommend that you configure the license server (*lmadmin*) as a service (execute the following command on OS X or on Linux):

c. Place the Vendor daemon in *<FlexNet server installation folder>\licenses\cameo*, to the same folder as the cameo.com (on OS X or on Linux):

As a result, the server will start automatically after the machine boots. Starting the server manually is not user-friendly – there is no GUI for this action.

If your operating system is Windows, you only need to select the **Run as a service** check box when prompted during the *lmadmin* installation.

- On OS X

```
chmod g+x FNPLicenseServerManager
```

```
chmod –R g+w /
```

- On Linux

```
chmod g+x FNPLicenseServerManager
```

Service Configuration

Provide information about running the FlexNet License Server Manager as a service. You must have administrative privileges to configure the server to run as a service.

Enter the service name: lmadmin

Enter number of seconds to delay when starting the service: 0

☑ Run as a service

Note that all files in FNPLicenseServerManager must have read/write permissions. *lmadmin* or cameo daemon may not start even if a log file or cameo daemon does not have r/w permissions.

5. Start the Server

If you come across any issues while installing/running the software, please refer to the Troubleshooting section.

Use this command to set permissions for all files within the directory recursively:

```
chmod –R 755 FNPLicenseServerManager
```

Other useful commands

For a installation guide on how to create a daemon, refer to Automatic Start in:

- Find out the shared object dependencies in Linux. The result can show what files are missing libraries to run that file.

- [License Administration Guide. FlexNet Publisher 2019 R2 (11.16.4)](#)

```
ldd <file_name>
```

- File information in Linux

```
file <file_name>
```

- Launching *lmgrd* manually via command line. *lmgrd*, cameo and license file must be in the same directory:

```
lmgrd -c <license_file_name> -l <logfile_name>
```

license_file_name - the path to the license file. Can use only the license file name if all files are in the same directory.

logfile_name - the path to the log file. Can use only the license file name if all files are in the same directory. Make sure the files have read/write privileges.

- Checking server status:

```
lmutil lmstat -a -c <server_port>@<server_host_or_ip_address>
```

server_port - the port the server is operating on (Not the cameo daemon port)

server_host_or_ip_address - the host/address the server is hosted on

Troubleshooting

JRE libraries are missing or not compatible

Error message while installing 32bit *lmadmin* on 64bit multi-arch Linux system.

The error message is misleading, the solution to fix it, is to install the 32bit libraries.

In Redhat/CentOS/Fedora:

```
sudo yum install redhat-lsb-core.i686
```

In recent Ubuntu use:

```
sudo apt-get install libc6-i386
apt-get update
sudo apt-get install lsb-core
```

In older Ubuntu use:

```
sudo dpkg --add-architecture i386
apt-get update
sudo apt-get install libc6:i386 libncurses5:i386 libstdc++6:i386
sudo apt-get install lsb-core
```

No such file or directory running *lmadmin*

That may mean that you are missing the correct Linux Standard Base (LSB) library.

Also it may mean that you are using a 64bit executable in a 32bit system and vice versa.

Install the Linux Standard Base (LSB) libraries to fix it.

libssl.so.1.0.0 library required running *lmadmin*

lmadmin 11.14 comes with libssl.so.1.0.0 in its installation directory.
You need to add these libraries in *lmadmin* directory to the LD_LIBRARY_PATH.

e.g. if your *lmadmin* installation is at /opt/FNPLicenseServerManager then adding it to the path would look like this:

```
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/opt/FNPLicenseServerManager
```

lmadmin won't start

If you install *lmadmin* on a Linux-based system when logged on as root, you may encounter various issues. For example:

- When you try to launch the Web server (http://localhost:port) on the license server, you encounter an "Unable to connect" error.
- When you attempt to run the license server, you may encounter the following errors:

```
10:43:19 (cameo) Vendor daemon can't talk to lmgrd (Cannot read data from license server system. (-16,287))
10:43:20 (cameo) EXITING DUE TO SIGNAL 37 Exit reason 5
```

In Web.log:

```
[08:08:08 2018] [warn] pid file /opt/FNPLicenseServerManager/logs/lmadmin.pid overwritten -- Unclean shutdown
of previous Apache run?
[08:08:08 2018] [alert] getpwuid: couldn't determine user name from uid 4294967295, you probably need to modify
the User directive
```

- A process listing for *lmadmin* ('ps aux | grep *lmadmin*') returns no results.

- A process listing for cameo ('ps aux|grep cameo') returns results if run right after *lmadmin* is started but then fails after a few seconds. If you view the cameo.log file in the logs directory (the default location is /opt/FNPLicenseServerManager/logs), you see that the process failed with the following error messages:

```
07:55:17 (cameo) Report log started (cameo/report.log).
07:55:27 (cameo) Vendor daemon can't talk to lmgrd (Cannot read data from license server system. (-16,287))
07:55:27 (cameo) EXITING DUE TO SIGNAL 37 Exit reason 5
```

Therefore, when you are installing *lmadmin* on a Linux-based system, it is recommended that you avoid installing as root. If you have already installed *lmad min* when logged on as root and you do not want to reinstall *lmadmin*, change the ownership of all of the files in the installed folder from root to another user

'Can't make directory' error running *lmgrd*

Can't make directory /usr/tmp/.flexlm, errno: 2(No such file or directory).

This means that directory /usr/tmp used by *lmgrd* is missing on your system(usually on Ubuntu systems). This error does not impact license checkout.

The solution to fix it is to create a symbolic link /usr/tmp pointing to /tmp:

```
ln -s /tmp /usr/tmp
```

You have no permission to install *lmadmin* in that directory

Make sure the *lmadmin* installer has read/write access.

```
chmod 755 lmadmin
```

or

```
chmod -R 755 folder_containing_lmadmin
```

to give read/write privileges to all files within a folder.

Then run *lmadmin* using sudo:

```
sudo ./<lmadmin_installer>
```

A sample script which performs the automated install of *lmadmin* in case you need it for reference purposes

A script is intended for CentOS and RedHat

```
#!/bin/bash
echo "==============="
echo "Installing wget"
echo "==============="
sudo yum install -y wget
echo "================="
echo "Installing lmadmin"
echo "================="
sudo getent group lmadmin >/dev/null || groupadd -r lmadmin
sudo getent passwd lmadmin >/dev/null || useradd -d /home/lmadmin -g lmadmin -m -r lmadmin
sudo yum install -y ld-linux.so.2
LSB=$(yum provides /lib/ld-lsb.so.3 | grep lsb-core | tail -1 | cut -f 1 -d ' ')
sudo yum install -y $LSB
sudo echo "lmadmin ALL=(ALL) NOPASSWD:ALL " >> /etc/sudoers
# If Web GUI to Flex licensing is not a must - lmgrd can be used, can be placed in rc.local to startup on boot
# usage - ./lmgrd -c PATH_TO_KEY_FILE -l PATH_TO_LOG_FILE
```

```
# RW rights needed to both files
echo "========================================================="
echo "Getting Linux 32-bit IPv6 version 11.14 from AWS FrontCloud"
echo "========================================================="
wget http://d1g91r27pzl568.cloudfront.net/Cameo_daemon/FlexNet_11_14/ipv6/linux/lnx_32/cameo
chmod +x cameo
echo "====================================="
echo "Getting Linux 32-bit lmgrd version 11.14"
echo "====================================="
wget https://d1oqhepk9od1tu.cloudfront.net/Flex_License_Server_Utilities/v11.14/linux32/lmgrd
chmod +x lmgrd
echo "====================================="
echo "Making flex log file named FlexLog.log"
echo "====================================="
touch FlexLog.log
chmod 664 FlexLog.log
echo "========================================="
echo "Getting Linux 32-bit lmadmin version 11.14"
echo "========================================="
wget https://d1oqhepk9od1tu.cloudfront.net/Flex_License_Server_Utilities/v11.14/linux32/lmadmin-i86_lsb-
11_14_0_0.bin
chmod +x lmadmin-i86_lsb-11_14_0_0.bin
echo "========================================="
echo "Executing lmadmin version 11.14 installer"
echo "IMPORTANT: Install into directory /opt/local/FNPLicenseServerManager"
echo ""
echo " Note:  Accept all defaults for script to work properly!!!"
read -p -"Press any key to continue ...: " -n1 -s
echo "========================================="
sudo ./lmadmin-i86_lsb-11_14_0_0.bin
sudo mkdir -p /opt/local/FNPLicenseServerManager/licenses/cameo/
sudo cp cameo /opt/local/FNPLicenseServerManager/cameo
sudo mv cameo /opt/local/FNPLicenseServerManager/licenses/cameo/cameo
sudo mv lmgrd /opt/local/FNPLicenseServerManager/lmgrd
sudo mv FlexLog.log /opt/local/FNPLicenseServerManager/FlexLog.log
sudo chown -R lmadmin:lmadmin /opt/local/FNPLicenseServerManager/
sudo chmod +x /opt/local/FNPLicenseServerManager/lib*
sudo cp /opt/local/FNPLicenseServerManager/lib* /usr/lib/
echo "====================="
echo "Opening firewall ports"
echo "====================="
FWZONE=$(sudo firewall-cmd --get-default-zone)
cat <<EOF | sudo tee /etc/firewalld/services/lmadmin.xml
<?xml version="1.0" encoding="utf-8"?>
<service version="1.0">
    <short>lmadmin</short>
    <description>lmadmin</description>
    <port port="8090" protocol="tcp"/>
    <port port="1101" protocol="tcp"/>
</service>
EOF
sleep 5
sudo firewall-cmd --zone=public --remove-port=8090/tcp --permanent
sudo firewall-cmd --zone=public --remove-port=1101/tcp --permanent
sudo firewall-cmd --zone=public --remove-port=27000-27009/tcp --permanent
sudo firewall-cmd --zone=internal --remove-port=8090/tcp --permanent
sudo firewall-cmd --zone=internal --remove-port=1101/tcp --permanent
sudo firewall-cmd --zone=internal --remove-port=27000-27009/tcp --permanent
sudo firewall-cmd --zone=$FWZONE --add-service=lmadmin --permanent
sudo firewall-cmd --reload
IP_ADDRESS=$(ip route get 1 | awk '{print $NF;exit}')
HOSTNAME=$(hostname)
echo "$IP_ADDRESS     $HOSTNAME" >> /etc/hosts
echo "====================================="
echo "Creating systemd service - lmadmin"
echo "====================================="
sudo echo "[Unit]" > /etc/systemd/system/lmadmin.service
sudo echo "Description=Flexnet License Daemon" >> /etc/systemd/system/lmadmin.service
sudo echo "After=network.target network.service" >> /etc/systemd/system/lmadmin.service
sudo echo "" >> /etc/systemd/system/lmadmin.service
sudo echo "[Service]" >> /etc/systemd/system/lmadmin.service
```

```
sudo echo "User=lmadmin" >> /etc/systemd/system/lmadmin.service
sudo echo "WorkingDirectory=/opt/local/FNPLicenseServerManager/" >> /etc/systemd/system/lmadmin.service
sudo echo "ExecStart=/opt/local/FNPLicenseServerManager/lmadmin -allowStopServer yes" >> /etc/systemd/system
/lmadmin.service
sudo echo "Restart=always" >> /etc/systemd/system/lmadmin.service
sudo echo "RestartSec=30" >> /etc/systemd/system/lmadmin.service
sudo echo "Type=forking" >> /etc/systemd/system/lmadmin.service
sudo echo "" >> /etc/systemd/system/lmadmin.service
sudo echo "[Install]" >> /etc/systemd/system/lmadmin.service
sudo echo "WantedBy=multi-user.target" >> /etc/systemd/system/lmadmin.service
sudo echo "" >> /etc/systemd/system/lmadmin.service
sudo chown root:root /etc/systemd/system/lmadmin.service
sudo chmod 755 /etc/systemd/system/lmadmin.service
sudo systemctl daemon-reload
sudo systemctl enable lmadmin.service
echo "========================================="
echo "lmadmin service installation complete"
echo "  usage: systemctl start|stop lmadmin"
echo "========================================="
```

If you run into any further problems with installation, please try:

- checking the FAQ section for the known problems
- checking the No Magic Community forum
- contacting customer support at support@nomagic.com