LTK Fedora Server Setup Guide

Overview

This guide describes the basic steps required in order to configure a LAMP server on Fedora for installing the LTK. LAMP stands for Linux, Apache, MySQL, and PHP which are the names of the server software this type of web server will use.

These instructions were written following a fresh install of **Fedora 30** with the **x86_64** processor architecture.

Installing Security Updates

Open a terminal and enter the following command to switch to a root shell:

```
su -
```

(When prompted, enter the root password)

Now enter the following commands to update the system with the latest security updates:

```
dnf clean all

dnf update
```

To exit the root shell, enter the following command:

```
exit
```

Web Server Setup (Apache)

Open a terminal and enter the following command to switch to a root shell:

```
su -
```

(When prompted, enter the root password)

Now enter the following command to install Apache:

```
dnf install httpd
```

Enable and start the service by entering the following commands:

```
systemctl enable httpd.service

systemctl start httpd.service
```

The apache web server should now be automatically configured. You can test this by entering "localhost" into a web browser. However, by default the web server is not accessible remotely.

To enable remote access via HTTP/HTTPS, enter the following commands:

```
firewall-cmd --permanent --add-service=http
```

```
firewall-cmd --permanent --add-service=https
```

and reload the firewall configuration:

```
systemctl reload firewalld
```

To exit the root shell, enter the following command:

```
exit
```

PHP Setup

Open a terminal and enter the following command to switch to a root shell:

```
su -
```
(When prompted, enter the root password)

Install the base PHP packages, as well as the following additional packages for PHP extensions required by LTK that will not be installed by the base PHP package:

```
dnf install php php-gd php-json php-mbstring php-mysqli php-xml php-
zip
```

When the installation completes, you will need to edit the **php.ini** file to make changes to the PHP configuration for LTK. This file will be located at:

```
/etc/php.ini
```

Search for the following configurations within that file and change their values as shown below:

```
memory_limit = 128M
```

```
post_max_size = 25M
```

```
upload_max_filesize = 20M
```

```
session.gc_maxlifetime = 10800
```

When done editing php.ini, save and close the file. Now restart the Apache service in order for the changes to take effect.

Enter the following command to restart Apache:

```
systemctl restart httpd.service
```

To exit the root shell, enter the following command:

```
exit
```

MySQL Setup

Open a terminal and enter the following command to switch to a root shell:

```
su -
```
(When prompted, enter the root password)

To install MySQL, we will need to download the MySQL Yum Repository. Go to the following page and look for **"Fedora 30 (Architecture Independant), RPM Package"** (this is the one compatible with this version of Fedora): https://dev.mysql.com/downloads/repo/yum/.

Take note of the RPM filename, which at the time of this writing is:

```
mysql80-community-release-fc30-1.noarch.rpm
```

Add the repository by entering the following command…

```
dnf install https://dev.mysql.com/get/filename
```

…where `filename` is the RPM filename identified above.

Update your system.

```
dnf update
```

Disable MySQL 8, enable MySQL 5.7 and install MySQL.

```
dnf --disablerepo=mysql80-community --enablerepo=mysql57-community
install mysql-community-server
```

Enable and start the service by entering the following commands:

```
systemctl enable mysqld.service

systemctl start mysqld.service
```

Retrieve the temporary password generated for the MySQL root user in /var/log/mysqld.log:

```
grep 'temporary password' /var/log/mysqld.log
```

Enter the following command to set a root password for MySQL:

```
/usr/bin/mysqladmin -u root password -p
```
(When prompted, enter the temporary password, then enter and confirm the desired password)

Make sure to remember this password, you will need it in order to access the MySQL server!

To exit the root shell, enter the following command:

```
exit
```

OPTIONAL: Change Owner of the WebRoot Folder

By default the WebRoot folder is located at:

```
/var/www/html
```

and is owned by root. For convenience, you can change the owner of this folder so that you don't need root permissions whenever you need to add/remove/edit files in the WebRoot.

To change owner of the WebRoot, first open a terminal and enter the following command to switch to a root shell:

```
su -
```

(When prompted, enter the root password)

Then, enter the following command…

```
chown -R username.username /var/www/html
```

…where username is the username of the user you wish to make the new owner.

To exit the root shell, enter the following command:

```
exit
```