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 39** with the **x86_64** processor architecture.

Installing Security Updates

Open a terminal and enter the following commands to update the system with the latest security updates:

```
sudo dnf clean all

sudo dnf update
```

Web Server Setup (Apache)

Open a terminal enter the following command to install Apache:

```
sudo dnf install httpd
```

Enable and start the service by entering the following commands:

```
sudo systemctl enable httpd.service

sudo 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:

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

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

and reload the firewall configuration:

```
sudo systemctl reload firewalld
```

PHP Setup

Open a terminal and enter the following command to install the base PHP packages, as well as the following additional packages for PHP extensions required by the LTK+ that will not be installed by the base PHP package:

```
sudo dnf install php php-gd 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 the 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:

```
sudo systemctl restart httpd.service
```

MySQL Setup

To install MySQL, we will need to download the MySQL Yum Repository. Go to the following page and look for **"Fedora 39 (Architecture Independent), 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-fc39-1.noarch.rpm
```

Open a terminal and add the repository by entering the following command…

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

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

Now enter the following command to install MySQL:

```
sudo dnf install mysql-community-server
```

Once installed, the service should be enabled by default but won't be started automatically until next boot. So, let's start the service by entering the following command:

```
sudo systemctl start mysqld.service
```

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

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

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

```
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!

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, open a terminal and enter the following command…

```
sudo chown -R username:username /var/www/html
```

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