LTK CentOS Server Setup Guide

Overview

This guide describes the basic steps required in order to configure a LAMP server on CentOS 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 **CentOS 7.6-1810** 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:

```
yum clean all
yum 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:

```
yum 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)

To install PHP you need to install and enable EPEL and Remi repository to your CentOS 7 system.

```
yum install https://dl.fedoraproject.org/pub/epel/epel-release-latest-
7.noarch.rpm

yum install https://rpms.remirepo.net/enterprise/remi-release-7.rpm
```

Next you need to install yum-utils which is a collection of programs that extend yum's default features.

```
yum install yum-utils
```

Enable Remi repository as the default repository for installing different PHP versions.

```
yum-config-manager --enable remi-php73
```

Now 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:

```
yum 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 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 from https://dev.mysql.com/downloads/repo/yum/.

The RPM filename for the MySQL 5.7 version is:

```
mysql57-community-release-el7-11.noarch.rpm
```

Add the repository to YUM by entering the following command…

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

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

Update your system.

```
yum update
```

Now we can install the MySQL server package.

```
yum install mysql-community-server
```

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:

```
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 change the root password for MySQL:

```
/usr/bin/mysqladmin –u root password -p
```
(When prompted, enter the temporary password retrieved above, 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
```