LTK Debian Server Setup Guide

Updated: 2019-09-03

Overview

This guide describes the basic steps required in order to configure a LAMP server on Debian 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 **Debian 10.0** with the **amd64** 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:

```
apt update
apt upgrade
```

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 run the Tasksel tool:

```
tasksel
```

On the “Software selection” screen that appears, ensure that the **web server** item is selected by using the arrow keys to move the cursor and the Spacebar key to toggle a selection on or off. An asterisk will appear next to an item when it is selected.

NOTE: Do NOT remove any of the existing software from the list that was already selected!

When ready to proceed, press the Tab key to move the cursor to the **<Ok>** confirmation, and press Enter to confirm.

When the software installation completes, the apache web server should be automatically configured. You can test this by entering “localhost” into a web browser.

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)l

Install the base PHP 7 package, as well as the following additional packages for PHP extensions required by LTK that will not be installed by the base PHP 7 package:

```
apt install php php-gd php-mbstring php-mysql 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/7.3/apache2/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. Note that whenever a modification is done to php.ini, the Apache service must be restarted in order for the changes to take effect.

Enter the following command to restart Apache:

```
systemctl restart apache2
```

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 APT Repository. Go to the following page and look for **"Ubuntu/Debian (Architecture Independant), DEB Package"** in the "MySQL APT Repository" side navigation section (this is the one compatible with Debian): https://dev.mysql.com/downloads/repo/apt/.

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

```
mysql-apt-config_0.8.13-1_all.deb
```

Download the file and build the repository…

```
wget https://dev.mysql.com/get/filename

dpkg -i filename
```

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

This will prompt you with configuration options. Use the arrow keys to make a selection and press "Enter" to confirm it. Select the "MySQL Server & Cluster" option and then select the mysql-5.7 version. To exit, select "Ok" at the very bottom of the options menu.

Now that the APT repository has been properly configured, you can update your system and then install MySQL:

```
apt update

apt install mysql-server
```

You will be asked to enter and confirm a root password for your database server. Make sure to remember this password, you will need it in order to access the MySQL server!

To secure your MySQL server installation, run the following command:

```
mysql_secure_installation
```

This will output a series of prompts. Enter the root password for your database server. Select "No" for changing your root password. Select "yes" to all the other prompts.

To exit the root shell once the installation completes, 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
```