PHP Laravel Deployment

Wednesday, March 23, 2022 10:32 AM

- Step 1 – Install Apache

The Apache web server packages are available under the default AppStream repository on CentOS 8. You just need to update the DNF cache and install packages using the following commands.

```
#sudo dnf update
#sudo dnf install httpd httpd-tools
```

The mod_ssl package provides the functionality to use an SSL certificate for secure HTTP. After installation, enable the httpd service and start.

```
#sudo systemctl enable httpd.service
#sudo systemctl start httpd.service
```

Now check the Apache service status:

```
#sudo systemctl status httpd.service
```

Output:

```
● httpd.service - The Apache HTTP Server
Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor preset: disabled)
Drop-In: /usr/lib/systemd/system/httpd.service.d
└─php-fpm.conf
Active: active (running) since Sat 2020-03-22 04:27:24 EDT; 5s ago
Docs: man:httpd.service(8)
Main PID: 8644 (httpd)
Status: "Started, listening on: port 80"
Tasks: 213 (limit: 8918)
Memory: 21.5M
CGroup: /system.slice/httpd.service
├─8644 /usr/sbin/httpd -DFOREGROUND
├─8650 /usr/sbin/httpd -DFOREGROUND
├─8651 /usr/sbin/httpd -DFOREGROUND
├─8652 /usr/sbin/httpd -DFOREGROUND
└─8653 /usr/sbin/httpd -DFOREGROUND

Mar 22 04:27:23 tecadmin systemd[1]: Starting The Apache HTTP Server...
Mar 22 04:27:24 tecadmin systemd[1]: Started The Apache HTTP Server.
Mar 22 04:27:24 tecadmin httpd[8644]: Server configured, listening on: port 80
```

From <https://tecadmin.net/install-lamp-centos-8/>

- Step 2 – Install PHP

```
#sudo dnf install php php-mysqlnd php-gd php-zip php-json php-xml php-gettext php-curl
php-intl php-pgsql php-pdo_pgsql php-ldap php-fpm
```

```
#sudo systemctl enable php-fpm
#sudo systemctl start php-fpm
#sudo systemctl status php-fpm
```

From <https://tecadmin.net/install-lamp-centos-8/>

- Step 3 – Install COMPOSER

Composer is used to create new Laravel applications or installing dependencies for existing application. Run the below commands to download and install PHP composer on your system.

```
#curl -sS  https://getcomposer.org/installer | php
#sudo mv composer.phar /usr/local/bin/composer
#sudo chmod +x /usr/local/bin/composer
```

Verify Composer by run command:

```
composer

______
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/ /___/ /_/ / / / / / / /_/ / /_/ (__ ) __/ /
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Composer version 2.1.3 2021-06-09 16:31:20

Usage:
command [options] [arguments]

Options:
-h, --help Display this help message
-q, --quiet Do not output any message
-V, --version Display this application version
--ansi Force ANSI output
--no-ansi Disable ANSI output
-n, --no-interaction Do not ask any interactive question
--profile Display timing and memory usage information
--no-plugins Whether to disable plugins.
-d, --working-dir=WORKING-DIR If specified, use the given directory as working directory.
--no-cache Prevent use of the cache
-v|vv|vvv, --verbose Increase the verbosity of messages: 1 for normal output, 2 for more verbose output and 3 for debug
```

From <https://tecadmin.net/install-laravel-on-centos-8/>

Step 3 – Allow Ports in Firewall

The CentOS 8 Linux server is ready to serve the application over LAMP environment. If your system

has firewalld installed ans active, you need to allow Apache ports. This will allow network users to access web application from remote systems.
The following commands will open the required ports for you.

```
sudo firewall-cmd --zone=public --permanent --add-service=http
sudo firewall-cmd --zone=public --permanent --add-service=https
sudo firewall-cmd --reload
```

From <[https://tecadmin.net/install-lamp-centos-8/>](https://tecadmin.net/install-lamp-centos-8/)

- Step 4 – Install MariaDB

```
#sudo dnf install mariadb-server
#sudo systemctl enable mariadb
#sudo systemctl start mariadb
#sudo systemctl status mariadb
```

```
#sudo mysql_secure_installation
```

Login command:

```
#mysql -u root -p
```

From <[https://www.cyberciti.biz/faq/how-to-install-mariadb-on-centos-8/>](https://www.cyberciti.biz/faq/how-to-install-mariadb-on-centos-8/)

Step 5 – Deploy PHP Laravel App

Example we have customer-inquiry-log application.

I. Place customer-inquiry-log in /var/www/
II. Create virtualhost.conf in /etc/httpd/conf.d/

```
<VirtualHost *:80>
ServerName 192.168.2.13
ServerAdmin root@localhost
DocumentRoot /var/www/customer-inquiry-log/public
<Directory /var/www/customer-inquiry-log/public>
Options Indexes FollowSymLinks MultiViews
AllowOverride All
Order allow,deny
allow from all
</Directory>
</VirtualHost>
```

III. Give access permission

```
#sudo chown -R apache.apache /var/www/customer-inquiry-log
#sudo chmod -R 755 /var/www/customer-inquiry-log
#sudo chmod -R 755 /var/www/customer-inquiry-log/storage/
#sudo chcon -R -t httpd_sys_rw_content_t /var/www/customer-inquiry-log/storage
```

IV. Restart httpd

```
#sudo systemctl restart httpd
```

(Option) – Allow 8080

I. Allow port on firewall

```
#sudo firewall-cmd --zone=public --permanent --add-port=8080/tcp
#sudo firewall-cmd --reload
#sudo firewall-cmd --list-all
```

II. Add listen port on /etc/httpd/http.conf

```
Listen 80
Listen 8080
```

III. Add virtual host for the project

```
<VirtualHost *:8080>
ServerName 192.168.2.13
ServerAdmin root@localhost
DocumentRoot /var/www/customer-inquiry-log/public
<Directory /var/www/customer-inquiry-log/public>
Options Indexes FollowSymLinks MultiViews
AllowOverride All
Order allow,deny
allow from all
</Directory>
</VirtualHost>
```

(Option) – Install Postgres

```
#sudo dnf module list postgresql
#sudo dnf install postgresql-server
#sudo postgresql-setup --initdb
#sudo systemctl enable postgresql
#sudo systemctl start postgresql
#sudo systemctl status postgresql
```

Connection:

```
#sudo -i -u postgres
```

Remote Connect:

```
#psql -h <IP> -p <port> -d <db_name> -U <user_name> -W
```

(Option) – Allow httpd connect DB

Enable command:

```
#setsebool httpd_can_network_connect_db 1
#sudo systemctl restart httpd
```

Check command:

```
#getsebool httpd_can_network_connect_db
```

From <https://superuser.com/questions/777676/php-cant-connect-to-postgresql-with-permission-denied-error-with-selinux>

(Option) – Allow httpd connect LDAP

Enable command:

```
#sudo setsebool httpd_can_connect_ldap 1
#sudo systemctl restart httpd
```

Check command:

```
#getsebool httpd_can_connect_ldap
```

(Option) - Allow httpd send email
Check status:

```
#getsebool httpd_can_sendmail
#getsebool httpd_can_network_connect
```

Allow httpd can send email:

```
#sudo setsebool -P httpd_can_sendmail 1
#sudo setsebool -P httpd_can_network_connect 1
```

(Option) - Allow httpd to open other port

Add

```
#sudo nano /etc/httpd/conf/httpd.config
```

```
Listen 8081
```

Check port

```
#sudo semanage port -l | grep http
```

Add port

```
#sudo semanage port -m -t http_port_t -p tcp 8081
#sudo semanage port -l | grep http
#sudo systemctl restart httpd
```