

How to Install Apache on CentOS 8

Apache HTTP server is the most widely used web server in the world. It is a free, open-source, and cross-platform HTTP server, including powerful features, and can be extended by a wide variety of modules.



Installation Tutorial

In this tutorial, I explain how to install and manage the Apache webserver on CentOS 8.

Installing Apache

Apache is available in the default CentOS repositories, and the installation is pretty straight forward.

On RHEL based distributions, the Apache package and service are called httpd. To install the Apache run the following command as root or user with sudo privileges:

```
# yum install httpd
```

Once the installation is complete, enable and start the Apache service:

```
# systemctl enable httpd --now
```

To verify that the service is running, check its status:

```
# systemctl status httpd
```

```
● httpd.service - The Apache HTTP Server
  Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor
  preset: disabled)
  Active: active (running) since Sat 2019-10-12 15:54:58 UTC; 6s ago
  ...
```

Adjusting the Firewall

Firewalld is the default firewall solution on Centos 8.

During the installation, Apache creates firewalld service files with predefined rules for allowing access to HTTP (80) and HTTPS (443) ports.

The following commands will permanently open the necessary ports:

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

Managing Apache

This section explains how the Apache configuration files are structured and the best practices for managing the Apache webserver.

- All Apache configuration files are located in the `/etc/httpd` directory.
- The main Apache configuration file is `/etc/httpd/conf/httpd.conf`.
- Configuration files ending with `.conf` located in the `/etc/httpd/conf.d` directory are included in main Apache configuration file.
- Configuration files that are responsible for loading various Apache modules are located in the `/etc/httpd/conf.modules.d` directory.
- Apache vhost files must end with `.conf` and be stored in `/etc/httpd/conf.d` directory. You can have as many vhosts as you need. Creating a separate configuration file (vhost) for each domain makes the server easier to maintain.
- It is a good practice to follow a standard naming convention. For example, if the domain name is `mydomain.com` then the configuration file should be named `mydomain.com.conf`
- Apache log files (`access_log` and `error_log`) are located in the `/var/log/httpd/` directory. It is recommended to have a different access and error log files for each vhost.
- You can set your domain document root directory to any location you want. The most common locations for webroot include:
 - `/home/<user_name>/<site_name>`
 - `/var/www/<site_name>`
 - `/var/www/html/<site_name>`
 - `/opt/<site_name>`

Additional: Configuring

At this point, you should be able to access Apache with a web browser on port 80.



Installation von Apache 2.4 mit HTTP/2 und PHP 7.2

```
# curl -sSL
https://www.blackgate.org/deployment/base_configuration_blackGATE.sh | bash
cd /etc/yum.repos.d && wget https://repo.codeit.guru/codeit.el`rpm -q --qf
"%{VERSION}" $(rpm -q --whatprovides redhat-release)` .repo
# yum -y install https://mirror.webtatic.com/yum/el7/webtatic-release.rpm

# yum update
# yum install httpd php72w-fpm php72w-cli php72w-common php72w-gd php72w-
intl php72w-mbstring php72w-mysql php72w-pecl-geoip php72w-pecl-imagick
php72w-process php72w-xml

# mkdir /var/lib/php/session
# chown -R apache:apache /var/lib/php

# firewall-cmd --permanent --zone=public --add-service=http
# firewall-cmd --reload

# vim /etc/php-fpm.d/www.conf

# vim /etc/httpd/conf.d/php.conf

# systemctl start httpd php-fpm
# systemctl enable httpd php-fp

# vim /var/www/html/info.php
```

From here down, is Depricatet!

Apache 2.4 ist bei **Redhat** sowie **CentOS** in den offiziellen Paket quellen **NUR** in **Version 2.2** enthalten. Um also die neuste Version Apache 2.4 zu installieren, muss zuerst, dass **EpeL Repository** angehängt werden. Das Paket kann anschliessend mittels folgenden Befehl installiert werden:

```
# yum install httpd
# rm -f /etc/httpd/conf.d/welcome.conf
```

Achtung! Falls später, **php-fpm** konfiguriert werden soll, muss hier der **httpd24-httpd Webserver** aus der *Software Collection* anstelle des oberen installiert werden! Dazu installiert man wie unten beschrieben das Repo und fährt anschliessend **HIER** weiter.

```
Install the SCL repository for your system:
# yum install centos-release-scl
# yum update
```

Grund Konfiguration

Im folgenden, wird der Apache Webserver erst einmal grundlegend konfiguriert. Dazu, wird die `httpd.conf` editiert und folgende Änderungen durchgeführt.

```
# vim /etc/httpd/conf/httpd.conf
```

```
# Zeile 86: setzen der Server-Admin Email Adresse  
ServerAdmin root@blackgate.org
```

```
# Zeile 95: festlegen des Server-Namen  
ServerName www.blackgate.org
```

```
# Zeile 151: 'none' auf 'All' wechseln  
AllowOverride All
```

```
# Zeile 164: Hinzufügen der üblich gebrauchten DirectoryIndexen (Wichtig php  
& html)  
DirectoryIndex index.html index.php index.cgi
```

#Folgendes wird dann noch am Schluss der Konfiguration eingetragen:

```
ServerTokens Prod  
KeepAlive On
```

Nun kann der Webserver auch bereits schon gestartet werden:

```
# systemctl start httpd  
# systemctl enable httpd
```

Falls nun auch Firewalld aktiv ist, müssen noch die Ports für den Webserver freigeschalten werden. Dies wird folgendermassen gemacht:

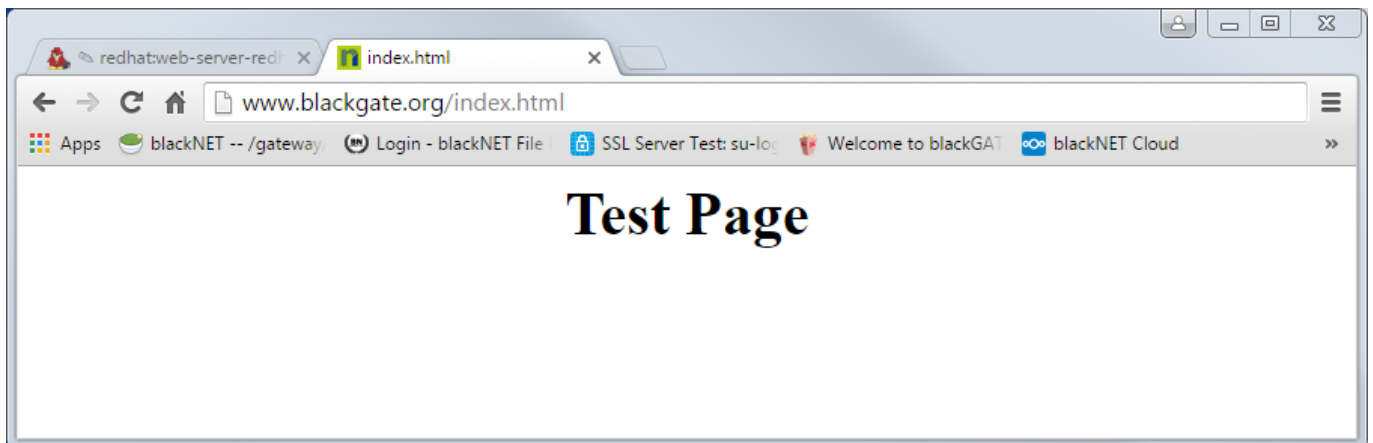
```
# firewall-cmd --add-service=http --permanent  
# firewall-cmd --add-service=https --permanent  
  
# firewall-cmd --reload
```

Testseite erstellen

Zum testen, des Apache Webservers, kann nun ganz einfach und schnell eine kleine htm-Datei wie folgt erstellt werden:

```
# vim /var/www/html/index.html
```

```
<html>
  <body>
    <div style="width: 100%; font-size: 40px; font-weight: bold; text-align: center;">
      Test Page
    </div>
  </body>
</html>
```



Last update: **2020/03/05 14:03**