# Apache CSR Creation and Installation using OpenSSL

### How to generate a CSR for Apache using OpenSSL

1. Login to your server via your terminal client (ssh). At the prompt, type:



- 3. openssl reg -new -newkey rsa:2048 -nodes -keyout server.key -out server.csr
- 4. where server is the name of your server.
- This begins the process of generating two files: the Private-Key file for the decryption of your SSL Certificate, and a certificate signing request (CSR) file (used to apply for your SSL Certificate) with apache openssl.
- 6. When you are prompted for the Common Name (domain name), enter the fully qualified domain name for the site you are securing. If you are generating an Apache CSR for a Wildcard SSL Certificate your common name should start with an asterisk (such as \*.example.com).
- 7. You will then be prompted for your organizational information, beginning with geographic information. There may be default information set already.
- 8. This will then create your openssl .csr file.
- 9. Open the CSR file with a text editor and save it (including the BEGIN and END tags) into text file and submit to us.
- 10. Save (backup) the generated .key file as it will be required later for Certificate installation.

### **Apache Server SSL Certificate Installation**

Installing your Certificate on Apache with mod ssl

1. Extract all of the contents of the ZIP file that was sent to you and copy/move them to your server. The extracted contents will typically be named:**yourDomainName.crt** and **yourDomainName.ca-bundle** 

Note: If you received several .crt files in your ZIP file please use this article to make yourDomainName.ca-bundle

2. Move all of the certificate related files to their appropriate directories.

## A typical setup:

- Move the Private Key that was generated earlier to the **ssl.key** directory, which is typically found in **/etc/ssl/**. This must be a directory which only Apache can access.
- Move the **yourDomainName.crt** and **yourDomainName.ca-bundle** to the **ssl.crt** directory, which is typically found in the **/etc/ssl/** directory.
- 3. Edit the file that contains the SSL configuration with your favorite text editor.

Examples: nano, vi, pico, emacs, mousepad, notepad, notepad++, etc.

**Note:** The location of this file may vary from each distribution. It will be referenced in the Apache global configuration file. Look for the lines starting with include.

## **Apache Configuration File:**

- Fedora/CentOS/RHEL: /etc/httpd/conf/httpd.conf

- Debian and Debian based: /etc/apache2/apache2.conf

### **SSL Configuration File:**

#### Some possible names:

- httpd-ssl.conf
- ssl.conf
- In the /etc/apache2/sites-enabled/ directory.

**Note:** If need be please consult your distribuiton's documentation on Apache and SSL or navigate to the Apache Foundation's Apache2 Documentation.

- 4. In the **VirtualHost** section of the file please add these directives if they do not exist. It is best to comment out what is already there and add the below entries.
- SSLEngine on
- SSLCertificateKeyFile /etc/ssl/ssl.key/server.key
- SSLCertificateFile /etc/ssl/ssl.crt/yourDomainName.crt
- SSLCertificateChainFile /etc/ssl/ssl.crt/yourDomainName.ca-bundle \*\*\*

## \*\*\* Apache 1.x:

Please use SSLCACertificateFile instead of SSLCertificateChainFile.

**Note:** The above paths in the directives are only used as examples. Your server may have a different path and may need to be modified to suit your needs.

5. Save your config file and restart the Apache service.