Set Up the Apache Web Server with Signed Certificates

If you are using a signed certificate for setting up Apache web server, you must perform the following tasks.

During the **.csr** file generation, provide the Apache web server public hostname, organization details, and the passphrase if the **.key** file is generated with the passphrase.

```
%AGILIANCE_HOME%\apache2\conf
```

To generate the .key file:

Apache supports either passphrase or **SSLFIPS ON**, but not both at the same time.

1. Download OpenSSL from **https://slproweb.com/products/Win32OpenSSL.html**.

2. Run the downloaded **.exe** file and follow the installation instruction to complete the OpenSSL installation.

3. After successful installation of OpenSSL, perform the following steps:

   > If you are restricted from being able to modify your environment variables while using the command prompt, then navigate to the **%OpenSSL_INSTALL_LOCATION%\bin** folder to execute **openssl.exe** from the command line.

   a. Set the **Environment Variable** `OPENSSL_CONF`

   b. Add **OpenSSL** to the **PATH Variable**.

   c. To generate the **.key** and **.csr** files, run the commands below:

   ```
   openssl genrsa -out server.key 2048
   ```

   ```
   openssl genrsa -des3 -out server.key 2048
   ```

   ```
   openssl req -new -key server.key -out server.csr
   ```

To generate a certificate signing request:

Refer to How to Create Private Key, CSR and Certificates with OpenSSL for Apache.

The signed certificates and generated **.key** file should be placed in the **C:\Server\apache2\conf** folder.

If the .key file is generated with the passphrase:

1. Navigate to the **%AGILIANCE_HOME%\apache2\conf** folder and open the **passphrase.bat** file using a text

editor.

2. Enter the passphrase and save the file.

3. Navigate to the **%AGILIANCE_HOME%\apache2\conf\extra** folder and open the **httpd-ssl.conf** file and change the **SSLFIPS ON** to **SSLFIPS OFF**.

4. Restart the Apache Service.

To change the passphrase:

1. Rename **server.key** to **server.key.org**.

2. Run the command: `openssl rsa -des3 -in server.key.org -out server.key`

3. Provide the new passphrase.

4. Navigate to the **%AGILIANCE_HOME%\apache2\conf\extra** folder and enter the new passphrase in the **passphrase.bat** file.

5. Restart the Apache Service.

To remove the passphrase:

1. Rename **server.key** to **server.key.org**.

2. Run the command: `openssl rsa -in server.key.org -out server.key`

3. Restart the Apache Service.