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# Apache SSL Certificate Deployment Guide



StartCom CA Limited

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## **1.The environment for installing the SSL certificate**

### **1.1 Brief introduction of SSL certificate installation environment**

Centos 6.4;

Install Apache version 2.2.\* or above;

Openssl 1.0.1+;

SSL certificate (Note: this guide uses the class 3 SSL certificate which the domain name is startssl.com to operate, other version of the certificate are also common.) .

### **1.2 Network environment requirements**

Please ensure the site is a legitimate domain, which can normal access by typing it's domain name <http://XXX>.

## 2.Installation of SSL certificate

### 2.1 Get SSL certificate

You will get a zip file after you apply the certificate from startcom successfully. You should to extract the file and you will get 4 files: Apache Server, IIS Server, Nginx Server, Other Server, These are different formats for different servers. We will need to use the certificate from Apache Server.zip.



Figure 1

### 2.2 Extract SSL certificate

Extract the file of 'Apache Server.zip', open it, there are two files, including public certificate and certificate chain, as shown in Figure 2.

Name	Date modified	Type	Size
1_root_bundle.crt	2016/1/7 10:27	Security Certificate	3 KB
2_startssl.com.crt	2016/1/7 10:27	Security Certificate	3 KB

Red arrows in the original image point from the text 'chain file' to '1\_root\_bundle.crt' and from 'public.crt' to '2\_startssl.com.crt'.

Figure 2

### 2.3 Install SSL certificate

To configure a default SSL/TLS aware virtual server, you should add at least the following lines to your httpd.conf or httpd-ssl.conf or ssl.conf:

```
LoadModule ssl_module modules/mod_ssl.so
Listen 443
<VirtualHost _default_:443>
    DocumentRoot /home/httpd/private
    ErrorLog /usr/local/apache/logs/error_log
    TransferLog /usr/local/apache/logs/access_log
    SSLEngine on
    SSLProtocol all -SSLv2 -SSLv3
    SSLCipherSuite ALL:!DH:!EXPORT:!RC4:+HIGH:+MEDIUM:!LOW:!aNULL:!eNULL
    SSLCertificateFile /usr/local/apache/conf/domain.crt (It's from the 'Apache Server.zip'
file)
    SSLCertificateKeyFile /usr/local/apache/conf/private.key (This private key is created
when you generate CSR)
    SSLCertificateChainFile /usr/local/apache/conf/1_root_bundle.crt (It's from the
'Apache Server.zip' file)
    CustomLog /usr/local/apache/logs/ssl_request_log \
        "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"
</VirtualHost>
```

## 2.4 Test the SSL certificate.

Access to <https://yourdomain.com> (the domain of the applied SSL certificate) Test your SSL certificate is installed successfully or not. If successful, the browser will display a safety lock sign. You could test your website's certificate and configuration by <https://www.ssllabs.com/ssltest/>.

### **3.Backup of SSL certificate**

Please save the file you receive, key file and password.

### **4.Restore of SSL certificate**

Repeat 2.3 operation.