

## Authentication based on certificates on Apache server, Redhat distribution

After installing the server certificate the following steps are followed:

Download the DIGISIGN root certificate from the address :  
<http://www.digisign.ro/certs/DIGISIGNTRUSTEDSERVICESCA.cer> and rename it with the extension .crt. (ex. digisigntrustca.crt ).

Copy into the folder /etc/httpd/conf/ssl.crt

In the file httpd.conf (or in ssl.conf depending on Apache version) set the following sections and the name must correspond:

```
SSLCACertificatePath /etc/httpd/conf/ssl.crt  
SSLCACertificateFile /etc/httpd/conf/ssl.crt/digisigntrustca.crt
```

In the section of authentication module the following variants can be selected:

- None – no authentication is wanted;
- Optional – authentication made also based on certificate, if any;
- Require – authentication made based on certificate only;
- SSLVerifyClient require;
- SSLVerifyDepth 2;

The last section to be present refers to the list of revoked certificates. Download the file LatestCRL.crl from the address :

<http://crl.adacom.com/DIGISIGNSA SecurityServices/LatestCRL.crl>

This file must be transformed into PEM (character) variant in order to be accepted by the module Apache mod\_ssl with the following command:

“openssl crl -inform DER -in LatestCRL.crl -out fisier.crl” and then it is copied into the folder /etc/httpd/conf/ssl.crl.

The path is set to the .crl file:

```
SSLCARevocationPath /etc/httpd/conf/ssl.crl  
SSLCARevocationFile /etc/httpd/conf/ssl.crl/fisier.crl
```

Finally, restart the service httpd. with apachectl stop, apachectl start or other command.

The rights of the files above must be 644 and held by root.

**Recommendation:** crl file must be renewed as often as possible (on daily basis if possible with a script with wget and openssl: the command of transforming the crl must be executed each time) in order to reflect as accurate as possible the certificates status.

