

Hosts

```
>notepad C:\Windows\System32\drivers\etc\hosts
```

```
    x.x.x.x inf.nye.hu    www.inf.nye.hu    # NYE Info
```

Generate certificate

(.pem (Privacy-Enhanced Mail))

```
# openssl -v
```

```
# mkdir -p /etc/ssl/localcerts/inf.nye.hu
```

```
# openssl req -new -x509 -days 365 -noenc \
```

```
-out /etc/ssl/localcerts/inf.nye.hu/cert.pem \
```

```
-keyout /etc/ssl/localcerts/inf.nye.hu/privkey.pem \
```

```
-subj "/C=HU/ST=Szabolcs-Szatmar-Bereg/L=Nyiregyhaza/O=Nyiregyhazi Egyetem/OU=Informatika/CN=inf.nye.hu" \
```

```
-addext "subjectAltName = DNS:inf.nye.hu, DNS:www.inf.nye.hu"
```

```
# chmod 600 /etc/ssl/localcerts/inf.nye.hu/*.pem
```

```
# openssl x509 -in /etc/ssl/localcerts/inf.nye.hu/cert.pem -noout -text
```

Create Apache virtual host with SSL

```
# mkdir -p /srv/www/inf.nye.hu-ssl
```

```
# cp -r /srv/www/inf.nye.hu/* /srv/www/inf.nye.hu-ssl
```

```
# cp /etc/apache2/sites-available/default-ssl.conf /etc/apache2/sites-available/inf.nye.hu-ssl.conf
```

```
# mcedit /etc/apache2/sites-available/inf.nye.hu-ssl.conf
```

inf.nye.hu-ssl.conf

...

ServerName inf.nye.hu

ServerAlias www.inf.nye.hu

ServerAdmin webmaster@inf.nye.hu

DocumentRoot /srv/www/inf.nye.hu-ssl

...

ErrorLog\${APACHE_LOG_DIR}/inf.nye.hu-ssl/error.log

CustomLog\${APACHE_LOG_DIR}/inf.nye.hu-ssl/access.log combined

...

SSLCertificateFile /etc/ssl/localcerts/inf.nye.hu/cert.pem

SSLCertificateKeyFile /etc/ssl/localcerts/inf.nye.hu/privkey.pem

...

mkdir /var/log/apache2/inf.nye.hu-ssl

a2ensite inf.nye.hu-ssl

a2enmod ssl

Redirecting http -> https

```
# mcedit /etc/apache2/sites-available/inf.nye.hu.conf
```

```
...
```

```
ServerName inf.nye.hu
```

```
ServerAlias www.inf.nye.hu
```

```
ServerAdmin webmaster@inf.nye.hu
```

```
DocumentRoot /srv/www/inf.nye.hu
```

```
RewriteEngine On
```

```
RewriteCond %{HTTPS} off
```

```
RewriteRule ^(.*)$ https://%{HTTP_HOST}%{REQUEST_URI} [R=301,L]
```

```
...
```

```
# a2enmod rewrite
```

```
# apache2ctl configtest
```

```
# systemctl reload apache2
```

```
# systemctl restart apache2
```

Import the certificate into browsers

MS Windows

>md C:\Certs

>scp root@inf.nye.hu:/etc/ssl/localcerts/inf.nye.hu/cert.pem C:\Certs\inf.nye.hu.crt

Google Chrome (MS Windows)

Settings -> Privacy and security -> Security -> Certificate management -> Local certificates -> Windows -> Manage imported certificates from Windows -> Trusted Root Certification Authorities -> Import... -> Next -> Browse... (C:\Certs\inf.nye.hu.crt) -> Open -> Next -> Place all certificates in the following store (Trusted Root Certification Authorities) -> Next -> Close -> Yes -> (The import was successful.) -> OK

Google Chrome restart

Mozilla Firefox (MS Windows)

Settings -> Privacy and security -> Certificate management -> Authorities -> Import... (C:\Certs\inf.nye.hu.crt) -> Trust this CA to identify web sites on -> OK -> OK

Mozilla Firefox restart

https://inf.nye.hu/ -> Advanced... -> Accept the Risk and Continue

Renewal certificate

```
# openssl req -new -x509 -days 365 -noenc \  
-out /etc/ssl/localcerts/inf.nye.hu/cert.pem \  
-keyout /etc/ssl/localcerts/inf.nye.hu/privkey.pem \  
-subj "/C=HU/ST=Szabolcs-Szatmar-Bereg/L=Nyiregyhaza/O=Nyiregyhazi Egyetem/OU=Informatika/CN=inf.nye.hu" \  
-addext "subjectAltName = DNS:inf.nye.hu, DNS:www.inf.nye.hu"
```

systemctl reload apache2

systemctl restart apache2

Delete expired certificate from browsers

Google Chrome (MS Windows)

Settings -> Privacy and security -> Security -> Certificate management -> Local certificates -> Windows -> Manage imported certificates from Windows -> Trusted Root Certification Authorities -> inf.nye.hu -> Delete -> Yes -> Yes -> Close

Google Chrome restart

Mozilla Firefox (MS Windows)

Settings -> Privacy and security -> Certificate management -> Authorities -> inf.nye.hu.crt -> Delete or Distrust... -> OK -> OK

Mozilla Firefox restart

Import the new certificate into browsers