

IN3210/4210 Exercise 5 - TLS

(Basic) Apache configuration:

```
<VirtualHost _default_:443>
  ServerName          localhost
  DocumentRoot        /var/www/html

  SSLEngine           on

  SSLCertificateFile   [...]
  SSLCertificateKeyFile [...]
</VirtualHost>
```

Results of testssl (relevant parts):

```
SSLv2      not offered (OK)
SSLv3      not offered (OK)
TLS 1      offered
TLS 1.1    offered
TLS 1.2    offered (OK)
SPDY/NPN   not offered
[...]
PFS is offered (OK) ECDHE-RSA-AES256-GCM-SHA384 DHE-RSA-AES256-GCM-
SHA384 DHE-RSA-AES256-SHA256 DHE-RSA-AES256-SHA DHE-RSA-CAMELLIA256-SHA
ECDHE-RSA-AES256-SHA384 ECDHE-RSA-AES256-SHA ECDHE-RSA-AES128-GCM-SHA256
ECDHE-RSA-AES128-SHA256 DHE-RSA-AES128-GCM-SHA256 DHE-RSA-AES128-SHA256
DHE-RSA-AES128-SHA DHE-RSA-CAMELLIA128-SHA ECDHE-RSA-AES128-SHA
[...]
Has server cipher order?      nope (NOT ok)
```

Secure Apache configuration:

```
<VirtualHost _default_:443>
  ServerName      localhost
  DocumentRoot    /var/www/html

  SSLEngine       on

  SSLCertificateFile [...]
  SSLCertificateKeyFile [...]

  SSLProtocol     all -SSLv3 -TLSv1 -TLSv1.1
  SSLHonorCipherOrder on
  SSLCipherSuite  ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-
AES128-GCM-SHA256:ECDHE-ECDSA-AES256-GCM-SHA384:ECDHE-RSA-AES256-GCM-
SHA384:ECDHE-ECDSA-CHACHA20-POLY1305:ECDHE-RSA-CHACHA20-POLY1305:DHE-
RSA-AES128-GCM-SHA256:DHE-RSA-AES256-GCM-SHA384
</VirtualHost>
```

Results of testssl (relevant parts):

```
SSLv2      not offered (OK)
SSLv3      not offered (OK)
TLS 1      not offered
TLS 1.1    not offered
TLS 1.2    offered (OK)
SPDY/NPN   not offered
[...]
PFS is offered (OK)  ECDHE-RSA-AES256-GCM-SHA384 DHE-RSA-AES256-GCM-
SHA384 ECDHE-RSA-AES128-GCM-SHA256 DHE-RSA-AES128-GCM-SHA256
[...]
Has server cipher order?  yes (OK)
```