

# Change Virtu signing certificate

Edit `update.properties` to add the new metadata URL:

```
# Default: haka = http://haka.funet.fi/fed/haka-metadata.xml
com.ubisecure.ubilogin.tools.metadata.url = https://virtu-ds.csc.fi/fed/virtu/virtu-metadata-v5.xml
```

Examine **the new metadata signing certificate** from

<https://wiki.eduuni.fi/download/attachments/28345571/virtu-metadata-signing-cert2019.pem?version=1&modificationDate=1559034400020&api=v2>

Edit `metadata-trust.xml`; **replace certificate and CRL.**

That was determined by examining the certificate using

```
openssl openssl.exe x509 -in virtu-metadata-cert-2019.pem -text -noout
```

and examining the X509v3 CRL Distribution Points: Full Name: field.

The issuer of the certificate has changed

```
openssl.exe x509 -in c:\tmp\virtu-metadata-cert-2019.pem -text -noout
```

```
WARNING: can't open config file: /apache24/conf/openssl.cnf
```

Certificate:

Data:

Version: 3 (0x2)

Serial Number: 203867023 (0xc26c38f)

Signature Algorithm: sha256WithRSAEncryption

**Issuer: C=FI, O=Vaestorekisterikeskus CA, OU=Palveluvarmenteet, CN=VRK C for Service Providers - G3**

**Validity**

Not Before: May 26 21:00:00 2019 GMT

Not After : May 26 20:59:59 2021 GMT

Subject: C=FI, ST=Finland, L=Espoo, O=CSC - Tieteellinen laskenta Oy, CN

`virtu-sign.csc.fi`

Subject Public Key Info:

Public Key Algorithm: rsaEncryption

Public-Key: (2048 bit)

The issuer root certificate needs to be updated.

The trusted source is <https://vrk.fi/ca-varmenteet>

The root certificate in PEM format is VRK CA for Service Providers - G3

<http://vrk.fineid.fi/certs/vrksp3.crt>

Open the file in Windows Certificate viewer, **export the certificate as a PEM**, remove the `-----BEGIN CERTIFICATE-----` and `-----END CERTIFICATE-----`, and **paste the PEM into the file `metadata-trust.xml`**.

The SSL certificate is the same for <https://virtu-ds.csc.fi/fed/virtu/virtu-metadata-v4.xml>

and

<https://virtu-ds.csc.fi/fed/virtu/virtu-metadata-v5.xml>, so `ssl-trust.xml` needs no changes. Both expire on Wednesday, October 23, 2019. Issued by TERENA.

## Related articles

- [How to add self-signed certificate to Java trust store on Windows](#)
- [Change Virtu signing certificate](#)
- [Update the SSO signing and encryption key](#)
- [Increase the SSO metadata certificate private key size](#)
- [Get the signing certificate fingerprint](#)