Sectigo

Authenticatie en Automation

versie 1.0.4, 3 april 2020

https://wiki.surfnet.nl/display/SCERTS/Workshops+Sectigo
> Attachments

RTFM

- Sectigo Knowledge Base: https://support.sectigo.com/
- Sectigo® Certificate Manager Administrator’s Guide (SCMAG)
- Certificate Manager REST API
- Courant: versie 20.2, March 2020

Sectigo® Certificate Manager

Administrator's Guide

20.2

SCMAG

March 2020

SECTIGO

cert-manager.com/customer/surfnet

SECTIGO

Certificate Manager

Login

Password

LOGIN

Or Sign In With

Your Institution

SCM Support
Sectigo Certificate Manager Status
SCM Guides

The use of Sectigo Certificate Manager is restricted to authorized users only. Access to Sectigo Certificate Manager may be monitored by Sectigo for operational or business purposes. Unauthorized access may lead to prosecution and/or disciplinary action.

Login via

SURFconext

SAML login

- Voor RAOs:
  - login via username/password
  - login via SURFconext
- Voor eindgebruikers (persoons- en gridcertificaten):
  - login via SURFconext
- IdP moet beschikbaar zijn via *edugain*
- Optioneel: SURFsecureID

Inloggen via SURFconext

- Probeer in te loggen via SURFconext op https://cert-manager.com/customer/surfnet/ssocheck/

- Identity Provider niet in de lijst?
  ⇨ Publiceer IdP in eduGAIN-metadata

- Foutmelding “Dienst niet toegankelijk via instelling”
  ⇨ Dien koppelverzoek in

service.seamlessaccess.org/ds/?entityID=https%3A

Access to **Sectigo Certificate Manager**

Find Your Institution

Your university, organization or company

Amsterdam

Examples: Science Institute, Lee@uni.edu, UCLA

Rijksmuseum Amsterdam
rijksmuseum.nl

Hogeschool van Amsterdam
hva.nl

University of Amsterdam
uva.nl

Vrije Universiteit Amsterdam
vu.nl

Openbare Bibliotheek Amsterdam (OBA)

Amsterdam University of the Arts

EN NL

Fout - Dienst niet toegankelijk via instelling

De instelling waarmee je wilt inloggen heeft toegang tot deze dienst niet geactiveerd. Dat betekent dat jij geen gebruik kunt maken van deze dienst via SURFconext. Neem contact op met de helpdesk van jouw instelling als je toegang wilt krijgen tot deze dienst. Geef daarbij aan om welke dienst het gaat (de 'SP') en waarom je toegang wilt.

Blijft deze foutmelding terug komen? Maak dan gebruik van de hieronder vermelde hulp opties.
Vermeld bij contact via helpdesk of mail de onderstaande code(s):

Idp Hash: 32171f5a7a012631cb41c6824947cf99	**EC:** 25282
SP: https://cert-manager.com/shibboleth	**IP:** 145.101.112.205
SP Name: Cert Manager I Sectigo	**UR ID:** 5e7b3caf5a9dd

Bezoek de SURFconext support pagina's voor ondersteuning bij deze foutmelding. Hier kun je ook vinden hoe je contact kunt opnemen met het supportteam als de fout aanblijft.

SURFconext Wiki | Helpdesk

SURFconext IdP Koppelen

- Via SURFconext Dashboard (https://dashboard.surfconext.nl/)
- Door *SURFconext-verantwoordelijke* van je instelling
- IdP in eduGAIN-metadata publiceren:
    - tabblad *Mijn Instelling*, wijzigingsverzoek 'gepubliceerd in eduGAIN’
- Dienst Koppelen:
    - Dien koppelverzoek in met dienst *Cert Manager* | *Sectigo*
      (Entity ID: https://cert-manager.com/shibboleth)
- Zie ook:
  https://wiki.surfnet.nl/display/surfconextdev/Identity+Provider+opnemen+in+eduGAIN

Dashboard

dashboard.surfconext.nl/apps/7979/saml20_sp/overview

SURF CONEXT IdP dashboard

SURFnet bv - Productie

Welkom, Joost van Dijk | Switch identiteit | EN NL | Help | Uitloggen

Statistieken | Services | Autorisatieregels | Tickets | Mijn instelling | Uitnodiging

Terug | Overzicht | Consent | Attributen | Licentie | Gebruikt door | Service gebruik | SURF Secure ID

Cert Manager | Sectigo

SECTIGO

Website

Privacyverklaring

Deze Service Provider is beschikbaar in SURFconext via eduGAIN. De Service Provider is door de volgende federatie geregistreerd: https://incommon.org.

Cert Manager | Sectigo

Entity ID: https://cert-manager.com/shibboleth

Dienst gekoppeld

Geen licentie-informatie beschikbaar
Lees meer

SURFsecureID aangezet

Beschrijving

Er is geen beschijving voor deze service.

SURFsecureID aangezet

Voor het inloggen op deze dienst is authenticatie met een tweede factor middels SURFsecureID vereist. Alle gebruikers moeten een token gebruiken van minimaal zekerheidsniveau (Level of Assurance / LoA): `loa2`. Voor meer informatie zie de wiki

Contractuele basis

Dienst aangeboden door op SURFconext aangesloten instelling. Voor meer informatie zie de wiki.

Privacy-informatie

De leverancier heeft geen privacy-informatie aangeleverd.

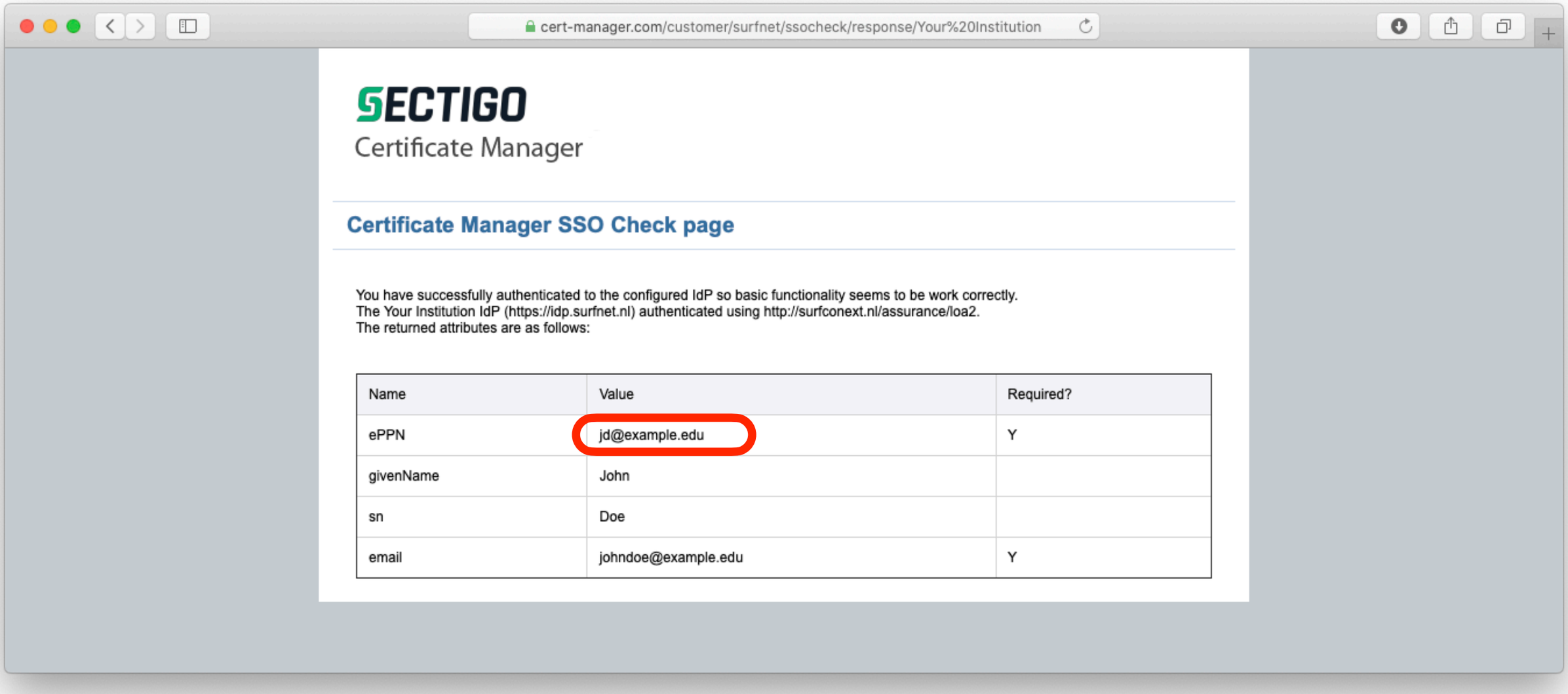
RAO koppelen met IdP

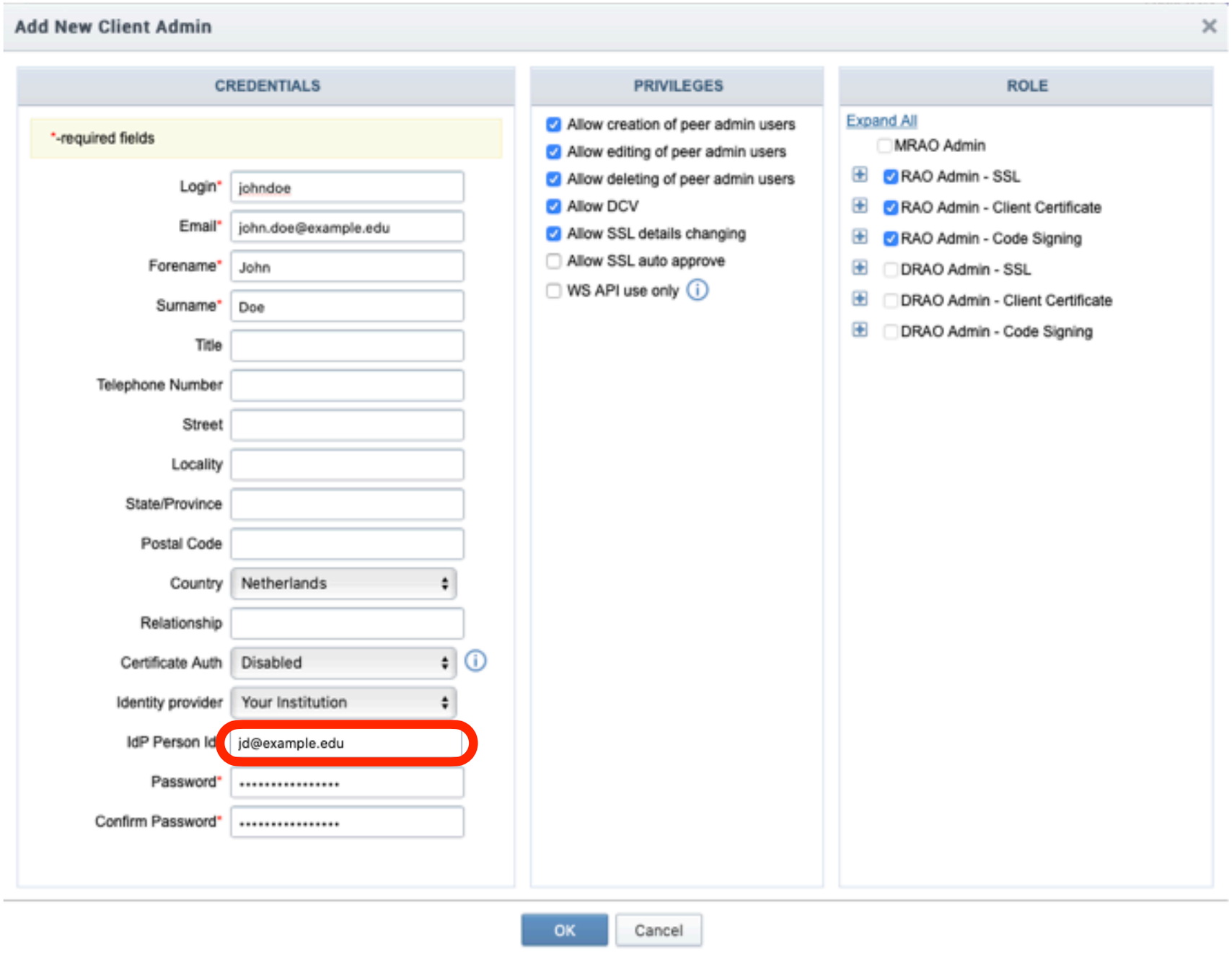
- RAO account moet vooraf aangemaakt zijn

- Account mapping via `edupersonPricipalname` (ePPN) attribuut
  Voorbeeld: `jd@example.edu`

- Note:
  ≠ `email` attribuut
  case sensitive

- Mismatch?
  IdP user with idpPersonID=jd@example.edu is not available for customer Example Edu and new IdP user creation ability is switched off


cert-manager.com/customer/surfnet/ssocheck/response/Your%20Institution
SECTIGO
Certificate Manager
Certificate Manager SSO Check page
You have successfully authenticated to the configured IdP so basic functionality seems to be work correctly.
The Your Institution IdP (https://idp.surfnet.nl) authenticated using http://surfconext.nl/assurance/loa2.
The returned attributes are as follows:
Name
Value
Required?
ePPN
jd@example.edu
Y
givenName
John
sn
Doe
email
johndoe@example.edu
Y


Add New Client Admin
CREDENTIALS
*-required fields
Login*
johndoe
Email*
john.doe@example.edu
Forename*
John
Surname*
Doe
Title
Telephone Number
Street
Locality
State/Province
Postal Code
Country
Netherlands
Relationship
Certificate Auth
Disabled
Identity provider
Your Institution
IdP Person Id
jd@example.edu
Password*
Confirm Password*
PRIVILEGES
Allow creation of peer admin users
Allow editing of peer admin users
Allow deleting of peer admin users
Allow DCV
Allow SSL details changing
Allow SSL auto approve
WS API use only
ROLE
Expand All
MRAO Admin
RAO Admin - SSL
RAO Admin - Client Certificate
RAO Admin - Code Signing
DRAO Admin - SSL
DRAO Admin - Client Certificate
DRAO Admin - Code Signing
OK
Cancel

cert-manager.com/customer/surfnet

SECTIGO

Certificate Manager

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SCM Guides

service.seamlessaccess.org/ds/?entityID=https%3A

Access to **Sectigo Certificate Manager**

Find Your Institution

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Amsterdam

Examples: Science Institute, Lee@uni.edu, UCLA

Rijksmuseum Amsterdam
rijksmuseum.nl

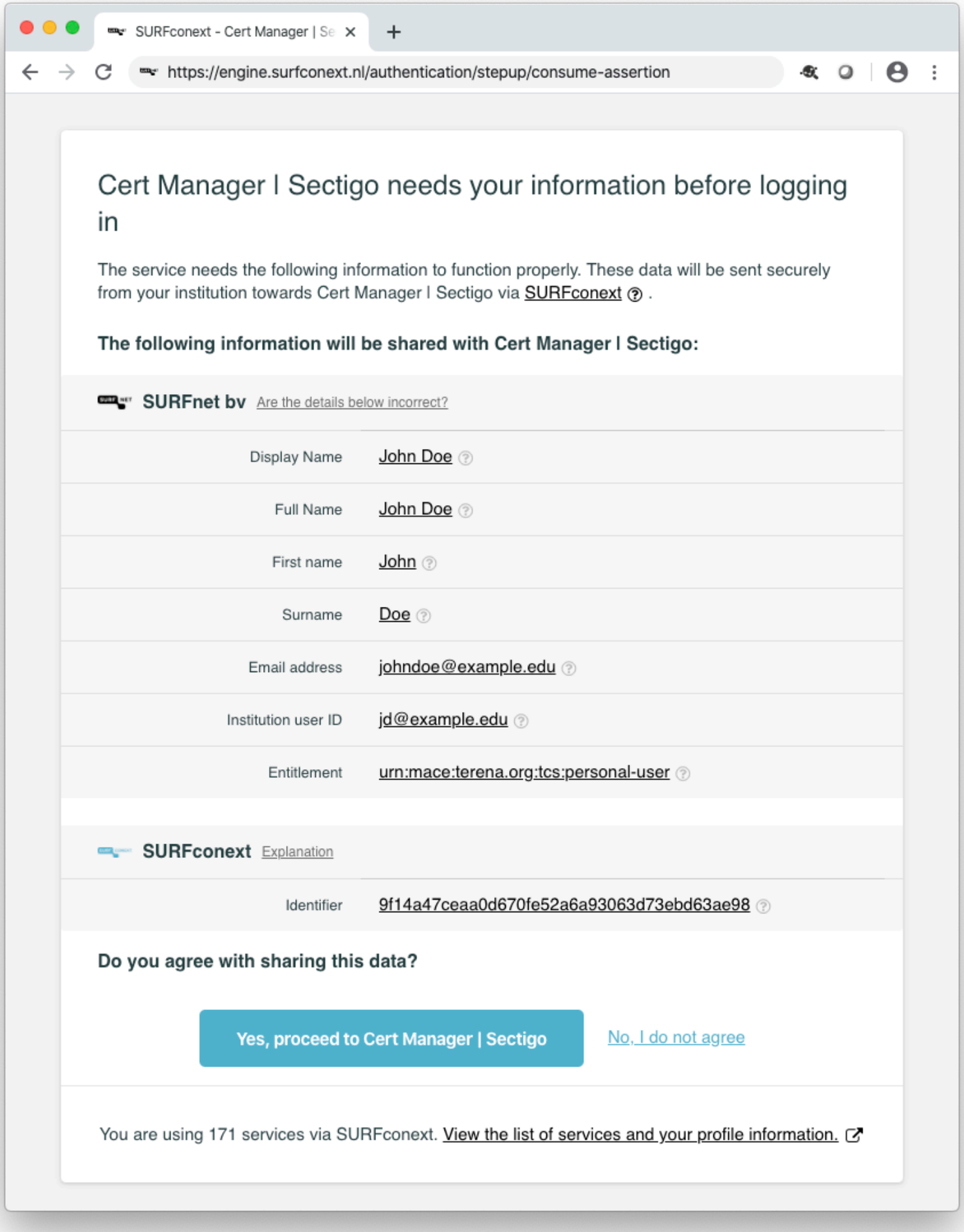
Hogeschool van Amsterdam
hva.nl

University of Amsterdam
uva.nl

Vrije Universiteit Amsterdam
vu.nl

Openbare Bibliotheek Amsterdam (OBA)

Amsterdam University of the Arts


SURFconext - Cert Manager | Se
https://engine.surfconext.nl/authentication/stepup/consume-assertion
Cert Manager I Sectigo needs your information before logging in
The service needs the following information to function properly. These data will be sent securely from your institution towards Cert Manager I Sectigo via SURFconext .
The following information will be shared with Cert Manager I Sectigo:
SURFnet bv
Are the details below incorrect?
Display Name
John Doe
Full Name
John Doe
First name
John
Surname
Doe
Email address
johndoe@example.edu
Institution user ID
jd@example.edu
Entitlement
urn:mace:terena.org:tcs:personal-user
SURFconext
Explanation
Identifier
9f14a47ceaa0d670fe52a6a93063d73ebd63ae98
Do you agree with sharing this data?
Yes, proceed to Cert Manager | Sectigo
No, I do not agree
You are using 171 services via SURFconext. View the list of services and your profile information.

RAO login versterken

- Met persoonscertificaat
  - Op basis van Certificate Serial
  - Let op:
    - autorevoke: serial aanpassen indien nieuw certificaat
    - Authenticatie met certificaat *niet* bij SURFconext login
- Met SURFsecureID
  - SURFconext Dashboard:
    koppelverzoek “Cert Manager | Sectigo”
    met minimum loa 2 of 3

Add New Client Admin

CREDENTIALS

*-required fields

Login* johndoe

Email* john.doe@example.edu

Forename* John

Surname* Doe

Title

Telephone Number

Street

Locality

State/Province

Postal Code

Country Netherlands

Relationship

Certificate Auth 42:48:B2:63:88:A1:BE:91:9

Identity provider Your Institution

IdP Person Id*

Password* ••••••••••••••••

Confirm Password* ••••••••••••••••

PRIVILEGES

- [x] Allow creation of peer admin users
- [x] Allow editing of peer admin users
- [x] Allow deleting of peer admin users
- [x] Allow DCV
- [x] Allow SSL details changing
- [ ] Allow SSL auto approve
- [ ] WS API use only

ROLE

Expand All

- [ ] MRAO Admin
- [x] RAO Admin - SSL
- [x] RAO Admin - Client Certificate
- [x] RAO Admin - Code Signing
- [ ] DRAO Admin - SSL
- [ ] DRAO Admin - Client Certificate
- [ ] DRAO Admin - Code Signing

OK Cancel

dashboard.surfconext.nl/apps/7979/saml20_sp/ssid

SURF CONEXT IdP dashboard SURFnet bv - Production Welcome, Joost van Dijk Switch identity EN NL Help Logout

Statistics Services Authorization policies Tickets My institute Invite

Back Overview Consent Attributes License Used by Service usage SURFsecureID

Cert Manager | Sectigo

Website

Privacy statement

This Service Provider is available in SURFconext through eduGAIN. The Service Provider is registered by the following federation: https://incommon.org.

SURFsecureID

With SURFsecureID you can better secure access to services with strong authentication.

A user logs in with username and password (the first factor) and SURFsecureID takes care of the second factor authentication like via a mobile app or USB key.

SURFsecureID Level of Assurance (LoA)

LoA 2 (see the wiki for more info)

sa-gw.surfconext.nl/second-factor-only/single-

Selecteer token voor login

SURF SECURE ID

Yubikey

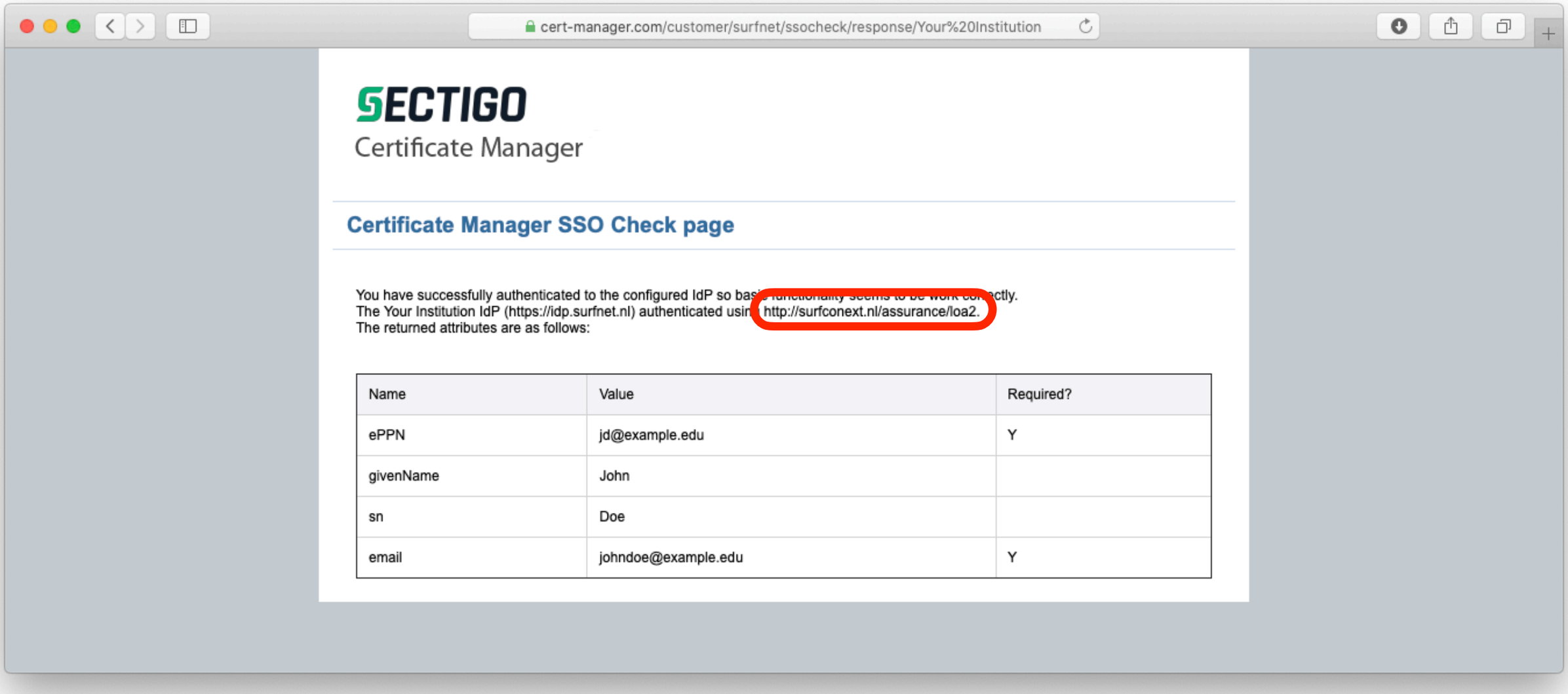
Selecteer

Tiqr

Selecteer

Annuleren

Help


cert-manager.com/customer/surfnet/ssocheck/response/Your%20Institution
SECTIGO
Certificate Manager
Certificate Manager SSO Check page
You have successfully authenticated to the configured IdP so bas ctly.
The Your Institution IdP (https://idp.surfnet.nl) authenticated usin http://surfconext.nl/assurance/loa2.
The returned attributes are as follows:
Name
Value
Required?
ePPN
jd@example.edu
Y
givenName
John
sn
Doe
email
johndoe@example.edu
Y

Automation

Automation

- Docs: Sectigo Knowledge Base
- Check your CAA records
- Sectigo ACME service
- SCM - Sectigo Certificate Manager REST API
- Agents (discovery, MS AD integration, …)

caatest.co.uk/surfnet.nl

DNS CAA Tester

> DNS Certification Authority Authorization (CAA) uses your DNS records to let you specify which certificate authorities are allowed to issue certificates for the domains you own.

To test your domain's CAA record, enter it below.

↳ Domain: surfnet.nl Test

```
✔ All looks good
---
0 issue "digicert.com"
0 issue "sectigo.com"
```

If you're not quite ready to test your DNS CAA record yet, then perhaps worth a visit to:

- sslmate for generating your DNS CAA records.
- SSL Labs for testing your complete SSL config.

CAA records toevoegen

- https://sectigostore.com/ssl-tools/caa-record-generator.php
- Via SURFdomeinen portal (https://www.surfdomeinen.nl/)
- Door *DNS-Beheerder* van je instelling

SURFdomeinen

surfdomeinen.nl/local/zone/zon_records.php?filters%5Bzone_rec_RecType%5D=15&filters%5Bzone_rec_RecFQDN%5D=&fil...

SURF DOMEINEN

SURFnet bv
Logboek | Instellingen | Log uit

Overzicht | Domeinregistratie | DNS beheer | Nameservers

Zones | Zoeken naar records | Handmatige reverse zones | Automatische reverse zones

Zone surfcertificaten.nl.

Terug naar zones

Zone surfcertificaten.nl.

Exporteer + | Record toevoegen +

vorige pagina | volgende pagina

Type	FQDN	TTL	Waarde	Omschrijving
caa	surfcertificaten.nl.		0 iodef "mailto:so@surf.nl"	
caa	surfcertificaten.nl.		0 issue "digicert.com"	
caa	surfcertificaten.nl.		0 issue "sectigo.com"	

vorige pagina | volgende pagina

Filter records

Type: caa

FQDN:

TTL:

Waarde:

Omschrijving:

Filter

DNSSEC

DNSSEC is ingeschakeld voor deze zone

Wilt u deze zone verhuizen?
Neem dan contact op met SURFnet voor meer informatie over het verhuizen van zones met DNSSEC.

Sectigo ACME service

Sectigo ACME service

- Automated Certificate Management Environment (ACME) RFC 8555
- ACME account aanmaken met SCM via *Settings*
  📖 *How to Configure ACME Accounts for Organizations and Departments*
- Alleen OV en EV (dus geen DV)
- Genereer client credentials (Key ID en HMAC Key)
- Beperk scope met domain whitelist
- Ondersteunde ACME client: certbot
  📖 *Using the Sectigo ACME Service*
- https://community.letsencrypt.org/t/beta-phase-of-certbot-for-windows/105822

cert-manager.com/customer/surfnet?privat

SECTIGO
Certificate Manager

Logged as: Joost van Dijk

Dashboard | Certificates | Discovery | Reports | Admins | Settings

Organizations | Domains | Notifications | Encryption | Access Control | Agents | Assignment Rules | Intune

Filter

Edit | Departments | Domains | ACME Accounts

	NAME	CITY	STATE	COUNTRY	VALIDATION STATUS
○	Coöperatie SURF U.A.	Utrecht	Utrecht	NL	VALIDATED
●	SURFnet B.V.	Utrecht	Utrecht	NL	VALIDATED

cert-manager.com/customer/surfnet?private#5

ACME Accounts - SURFnet B.V.

Filter

Add

NAME	SERVER	VALIDATION TYPE	STATUS

No data

15 rows/page 0 - 0 out of 0

Close

cert-manager.com/customer/surfnet?private#5

ACME Accounts - SURFnet B.V.

Filter

Create ACME Account

*-required fields

Name* JoDi

ACME Server* https://acme.sectigo.com/v2/OV

ACME URL https://acme.sectigo.com/v2/OV

Validation Type *OV*

DOMAINS

Available domains:

student.nl
*.surf-academy.nl
surf-academy.nl
*.surfaudit.nl
surfaudit.nl
*.surfcatalog.nl
surfcatalog.nl
*.surfcatalogus.nl
surfcatalogus.nl
*.surfcert.nl
surfcert.nl
*.surfcloud.nl

Assigned domains:

surfcertificaten.nl

OK Cancel

Close

cert-manager.com/customer/surfnet?private#5

ACME Accounts - SURFnet B.V.

Filter

Add

NAME	SERVER	VALIDATION TYPE	STATUS
JoDi	https://acme.sectigo.com/v2/OV	OV	pending

ACME Account successfully created: JoDi

ACME URL: https://acme.sectigo.com/v2/OV

EXTERNAL ACCOUNT BINDING

Account ID: *3YR-KXZ9hI09FRd3coisFw*

Key ID: 3YR-KXZ9hI09FRd3coisFw

HMAC Key: DVJx8GBjZCdU3rRQ2ueVMXJgmxwfn7ePm2HEYoXNkNjhS1ajpQoaiHUC
JpVfPWTcyD2iDpmzu9Rnd3CuTgeXQw

Close

15 rows/page 1 - 1 out of 1

Close

```
# install certbot
# See instructions at https://certbot.eff.org

# Register using ID and key for external account binding:

sudo certbot register \
  --server https://acme.sectigo.com/v2/OV \
  --eab-kid 3YR-KXZ9hI09FRd3coisFw \
  --eab-hmac-key DVJx8GBjZCdU3rRQ2ueVMXJg…Qw \
  --email jd@example.edu

# Issue certificate for Apache Web Server:

sudo certbot \
  --apache
  --domain acme-demo.surfcertificaten.nl \
  --server https://acme.sectigo.com/v2/OV
```

Apache2 Ubuntu Default Page: It

acme-demo.surfcertificaten.nl

Apache2 Ubuntu Default Page

ubunt

This is the defau
installation on U
Apache packagir
at this site is wo
before continuin

If you are a norr
that the site is c
site's administra

2 server after
m which the Ub
HTTP server ins
/html/index.h

this probably m
please contact

USERTrust RSA Certification Authority
Sectigo RSA Organization Validation Secure Server CA
acme-demo.surfcertificaten.nl

acme-demo.surfcertificaten.nl
Issued by: Sectigo RSA Organization Validation Secure Server CA
Expires: Sunday, 28 March 2021 at 00:59:59 Central European Standard Time
This certificate is valid

Details

OK

Ubuntu's Apache
figuration, and
into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in /usr/share/doc/apache2/README.Debian.gz**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** i
`apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

SCM REST API

- Docs: Sectigo Knowledge Base
  SCM - Sectigo Certificate Manager REST API

- All certificates types

Certificate Manager 20.2 REST A

Search Google or type a URL

Table of Contents

Certificate Manager 20.2 REST API

Overview

HTTP verbs

RESTful notes tries to adhere as closely as possible to standard HTTP and REST conventions in its use of HTTP verbs.

Verb	Usage
`GET`	Used to retrieve a resource
`POST`	Used to create a new resource
`PATCH`	Used to update an existing resource, including partial updates
`DELETE`	Used to delete an existing resource

SCM Setup

- Maak een API user met RAO Admin role types
  (SSL, Client Certificate, etc)
    - voor gebruik eerst inloggen en wachtwoord aanpassen
    - daarna: “WS API use only”
- *Settings* | *Organizations* | *SSL Certificate*: Enable “Web API”
  (dummy secret key)
- API Username/wachtwoord via HTTP headers
- SCM account URI: **surfnet** (`customerURI` header)
- orgID: zie organization API

cert-manager.com/customer/surfnet?private#5

SECTIGO
Certificate Manager

Logged as: Joost van Dijk

Dashboard

Organizations | Domains

Filter

Edit | Departments

NAME
Coöperatie SURF U.A.
SURFnet B.V.

Edit Organization: SURFnet B.V.

General | Client Certificate | SSL Certificate | Code Signing Certificate | Email Template

Self Enrollment ☐

Sync. Expiration Date ☐

Sync. Month: Not used

Sync. Day: 1

(1 - 31)

Web API ☑

Secret Key*:

Make External Requester Mandatory ☐ ⚠

Set constraints for External Requester

Allow removing address fields from certificate ☑

SSL Types: Customize

Server Software: Customize

OK | Cancel

HTTP headers

```
Accept: application/json;charset=utf-8
Content-Type: application/json;charset=utf-8
customerUri: surfnet
login: <your API user login>
password: <your API user password>
```

SSL Certificate types

id	Name	Terms (#days)
423	GÉANT OV SSL	365, 730
424	GÉANT Wildcard SSL	365, 730
425	GÉANT Unified Communications Certificate	365, 730
426	GÉANT OV Multi-Domain	365, 730
427	GÉANT EV SSL	365, 730
428	GÉANT EV Multi-Domain	365, 730
429	GÉANT IGTF Multi Domain	365, 395
363	EV Anchor Certificate	395

`https://cert-manager.com/api/ssl/v1/types`

orgID

```
$ curl -H @headers https://cert-manager.com/api/organization/v1
[
  {
    "id": 12345,
    "name": “Example Org",
    "certTypes": [
      "SMIME",
      "SSL"
    ],
    "departments": []
  }
]
```

```
{
  "orgId": 12345,
  "csr": "-----BEGIN CERTIFICATE REQUEST——\nMII.. .”,
  "certType": 423,
  "term": 365
}
```

Vragen?

- scs-ra@surfnet.nl

- In progress: https://wiki.surfnet.nl/display/SCERTS/FAQ