



CA Certificate Commands

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ca-certificate install

To manually install a CA certificate, use the **ca-certificate install** command in Global Configuration mode. To remove a static CA certificate, use the **no** form of this command.

Syntax

ca-certificate install name *name* [**owner** *owner*]

no ca-certificate install {**name** *name* | **owner** *owner*}

Parameters

- **name**—Specifies the certificate name. The range is from 1 to 160 characters.
- **owner**—specifies the owner of the certificate. This is a string of 0 to 32 characters. If an owner is not specified, the default owner is "Static".

When adding a certificate, the certificate itself should follow the command on the command line.

Default Configuration

There are no installed certificates.

Command Mode

Global Configuration mode

User Guidelines

Use the **ca-certificate install name** command to install a CA certificate.

Following the command, the user will be prompted to enter the certificate in the command line.

The user will need to enter or paste the certificate. Entering a period on a separate line indicates that the certificate input is complete.

The entered certificate must use the pem format.

A certificate will not be valid if the system clock was not set by user or synchronized with SNTP, or based on hardware based Real Time Clock (RTC).

Up to 256 certificates can be installed.

When using the **no** form of the command to remove certificates, a specific certificate can be removed by **name**. Alternatively, the **owner** keyword can be used to remove all static certificates belonging to a specific owner.

Example 1. The following example installs a CA certificate from the command line:

```
switchxxxxxx(config)# ca-certificate install root1
Please paste the input now, add a period (.) on a separate line after the
input, and press Enter.
-----BEGIN CERTIFICATE-----
MIIBkzCB/QIBADBUMQswCQYDVQQGEwIgdEKMAGGA1UECBMBIDEKMAGGA1UEBxMB
IDEVMBMGA1UEAxMMMTAuNS4yMzQuMjA5MQowCAYDVQQKEwEgMQowCAYDVQQLEwEg
MIGfMA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBgQDK+beogIcke73sBSL7tC2DMZrY
```

```
O0g9XM1Axf0iqLlQJHd4xP+BHGZWwfkjKjUDBpZn52LxdDulKrpB/h0+TZP0Fv38
7mIDqtnoF1NLsWxkVKRM5LPka0L/halpYxp7EWAt5iDBzSw5s04lv0bSN7oaGjFA
6t4SW2rrnDy8JbwjWQIDAQABoAAwDQYJKoZIhvcNAQEEBQADgYEAuqYQiNjst6hI
XFDxe7I8Od3Uyt3Dmf7KE/AmUV0Pif2yUluy/RuxRwKhDp/lGrKl2tzLQz+s50x7
Klft/IcjbzBYXLvih45ASWG3TRv2WVKyWs89rPPXu5hKxggEeTvWqpuS+gXrIqjW
WVZd0n1fXhMacoflgnnEmweIzmrqXBs=
-----END CERTIFICATE-----
switchxxxxxx (config) #
```

ca-certificate revoke

To add a certificate to the revocation list, use the **ca-certificate revoke** command in Global Configuration mode. To remove a certificate from the revocation list, use the **no** form of this command.

Syntax

ca-certificate revoke issuer *issuer* **serial-number** *serial-number*

no ca-certificate revoke issuer *issuer* **serial-number** *serial-number*

Parameters

- **issuer**—The issuer string as it appears in the revoked certificate - including all parameters (Range: 1-160 characters).
- **serial-number**—The serial number of the revoked certificate. This is a string in hexadecimal format (Range: 1-16 pairs of characters).

Default Configuration

There are no revoked certificates.

Command Mode

Global Configuration mode

User Guidelines

Use the **ca-certificate revoke** command to add a certificate to the revocation list.

When entering the issuer information, the full issuer string should be entered as it appears in the certificate. If the string contains spaces, it must be contained in quotation marks.

Adding a certificate to this list will change the status of this certificate to "revoked" if it is installed. If the certificate is not installed, it will receive the revoked status if it is installed at a later date.

Up to 512 certificates can be added to the revocation list.

Example 1. The following example adds a CA certificate to the revocation list:

```
switchxxxxxx(config)# ca-certificate revoke issuer "C=US, O=GlobalSign nv-sa, CN=GlobalSign  
Organization Validation" serial-number 10ad0044a8418ad5005e45b6  
switchxxxxxx(config)#
```

show ca-certificate

To display the CA certificates installed on the device and their status, use the **show ca-certificate** command in Privileged EXEC mode.

Syntax

```
show ca-certificate [name name][type type][owner owner-name][detailed]
```

Parameters

- **name** *name* - Specifies the certificate name. (Range: 1-160 characters).
- **type** *type*—Specifies the certificate type. The possible values are static, dynamic or signer.
- **owner** *owner-name*—Specifies the name of the certificate owner - this is the application that installed a dynamic certificate. (Range: 1-32 characters).
- **detailed** - This optional parameter shows detailed information of the displayed certificates. If this parameter is not used, only limited information will be displayed for each certificate.

Command Mode

Privileged EXEC mode

User Guidelines

Use the **show ca-certificate** command to display all installed CA certificates.

Use the optional **name**, **type** and **owner** parameters to display the information of a subset of certificates.

Example 1 The following example displays brief information for all static CA certificates.

```
switchxxxxxx# show ca-certificate type static
Name          Type      Owner      Valid From   Valid To     Status
-----
local.cert    static   rnd        03-Aug-2019  03-Aug-2020  Valid
appl.cert1    static   appl       16-Jan-2021  16-Jul-2023  Premature
appl.cert2    static   appl       15-Mar-2017  14-Mar-2018  Expired
trusted-cert1 static   app2       27-Jun-2019  26-Jun-2024  Valid
certif3       static   app3       08-Feb-2018  08-Feb-2020  Revoked
```

Example 2 The following example displays detailed information for all CA certificates:

```
switchxxxxxx# show ca-certificate detailed
>C-CountryName, ST-StateOrProvinceName, L-Locality, O-Organization,
>OU-OrganizationalUnit, CN-CommonName
cert1
  Type: Signer
  Owner: N/A
  Version: 3 (0x2)
  Serial Number: 10:ad:00:44:a8:41:8a:d5:00:5e:45:b6
  Issuer: C=US, O=GlobalSign nv-sa, CN=GlobalSign Organization Validation
  Status: Valid
  Validity
    Not Before: Nov 21 08:00:00 2015 GMT
    Not After : Nov 22 07:59:59 2020 GMT
  Subject: C=US, O=GlobalSign nv-sa, CN=GlobalSign Organization Validation
```

```
Public Key Type: ECDSA_P256
Public Key Length: 2048 bits
Signature Algorithm: sha256RSA
certA
Type: Static
Owner: Static
Parent: cert1
Version: 3 (0x2)
Serial Number: 10:e6:fc:62:b7:41:8a:d5:00:5e:45:b6
Issuer: C=US, O=GlobalSign nv-sa, CN=GlobalSign Organization Validation
Status: Not Valid (expired)
Validity
  Not Before: Nov 21 08:00:00 2016 GMT
  Not After : Nov 22 07:59:59 2017 GMT
Subject: C=US, ST=California, L=San Francisco, O=AKB Foundation, Inc.,
        CN=*.wikipedia.org
Finger print: DC72343 DC88A988 127897BC BB789788
Public Key Type: ECDSA_P256
Public Key Length: 2048 bits
Signature Algorithm: sha256RSA
certB
Type: Dynamic
Owner: PnP
Parent: cert1
Version: 3 (0x2)
Serial Number: 88:cc:55:ae:a8:41:8a:d5:00:5e:45:b6
Issuer: C=US, O=Google Trust Services, CN=GTS CA 101
Status: Not Valid (revoked)
Validity
  Not Before: Sep 21 08:00:00 2019 GMT
  Not After : Sep 22 07:59:59 2020 GMT
Subject: C=US, S=California, L=Mountain View O=Google LLC, CN=*.google.com
Finger print: DC789788 DC88A988 127897BC BB789788
Public Key Type: ECDSA_P256
Public Key Length: 2048 bits
Signature Algorithm: sha256RSA
```

show ca-certificate revocation

To display the CA certificate revocation list, use the **show ca-certificate revocation** command in Privileged EXEC mode.

Syntax

```
show ca-certificate revocation
```

Command Mode

Privileged EXEC mode

User Guidelines

Use the **show ca-certificate revocation** command to display the CA certificate revocation list.

Example. The following displays the revocation list:

```
switchxxxxx# show ca-certificate revocation
>C-CountryName, ST-StateOrProvinceName, L-Locality, O-Organization,
>OU-OrganizationalUnit, CN-CommonName
  Issuer: C=US, O=GlobalSign nv-sa, CN=GlobalSign Organization Validation
  Serial Number: 10:ad:00:44:a8:41:8a:d5:00:5e:45:b6
-----
  Issuer: C=US, O=Google Trust Services, CN=GTS CA 101
  Serial Number: 00:9e:44:1b:49:08:8d:75:bb:02:00:00:00:00:40:a5:b4
```

