

Create New Certificates from Signed CA Certificates

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Introduction

This document describes how to regenerate the certificates signed by a Certificate Authority (CA) in Cisco Unified Communications Manager (CUCM).

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Real-Time Monitoring Tool (RTMT)
- CUCM Certificates

Components Used

- CUCM release 10.x , 11.x, and 12.x.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Pre-check Information

Note: For Self-Signed certificate regeneration, refer to the [Certificate Regeneration Guide](#). For CA-signed Multi-SAN certificate regeneration, refer to the [Multi-SAN Certificate Regeneration Guide](#).

To understand the impact of each certificate and its regeneration, refer to the [Self-Signed Regeneration Guide](#).

Each Certificate Signing Request (CSR) type has different key usages and those are required in the Signed Certificate. The [Security Guide](#) includes a table with the required key usages for each type of certificate.

To change the Subject Settings (Locality, State, Organization Unit, and so on) run this command:

- `set web-security orgunit orgname locality state [country] [alternatehostname]`

The Tomcat certificate is regenerated automatically after you run the `set web-security` command. The new Self-Signed certificate is not applied unless the Tomcat service is restarted. Please refer to these guides for more information about this command:

- [Command Line Reference Guide](#)
- [Link to Cisco Community Steps](#)
- [Video](#)

Configure and Regenerate Certificates

The steps to regenerate Single-Node certificates in a CUCM cluster signed by a CA are listed for each type of certificate. It is not necessary to regenerate all the certificates in the cluster if they have not expired.

Tomcat Certificate

Caution: Verify SSO is disabled in the cluster (CM Administration > System > SAML Single Sign-On). If SSO is enabled, it must be disabled and then enabled once the Tomcat certificate regeneration process is completed.

On all the nodes (CallManager and IM&P) of the cluster:

Step 1. Navigate to **Cisco Unified OS Administration > Security > Certificate Management > Find** and verify the expiration date of the Tomcat certificate.

Step 2. Click **Generate CSR > Certificate Purpose: tomcat**. Select the desired settings for the certificate, then click **Generate**. Wait for the success message to appear and click **Close**.

Generate Certificate Signing Request

Generate Close

Status

Success: Certificate Signing Request Generated

Generate Certificate Signing Request

Certificate Purpose** tomcat

Distribution* 115pub

Common Name* 115pub

Subject Alternate Names (SANs)

Parent Domain

Key Type** RSA

Key Length* 2048

Hash Algorithm* SHA256

Generate Close

*- indicates required item.

**When the Certificate Purpose ending with '-ECDSA' is selected, the certificate/key type is Elliptic Curve (EC). Otherwise, it is RSA.

Step 3. Download the CSR. Click **Download CSR** , select **Certificate Purpose: tomcat**, and click **Download**.

Download Certificate Signing Request

Download CSR Close

Status

Warning: Certificate names not listed below do not have a corresponding CSR

Download Certificate Signing Request

Certificate Purpose* tomcat

Download CSR Close

*- indicates required item.

Step 4. Send the CSR to the Certificate Authority.

Step 5. The Certificate Authority returns two or more files for the signed certificate chain. Upload the certificates in this order:

- Root CA certificate as tomcat-trust. Navigate to **Certificate Management > Upload certificate > Certificate Purpose: tomcat-trust**. Set the description of the certificate and browse the Root certificate file.
- Intermediate certificate as tomcat-trust (Optional). **Navigate to Certificate Management > Upload certificate > Certificate Purpose: tomcat-trust**. Set the description of the certificate and browse the intermediate certificate file.

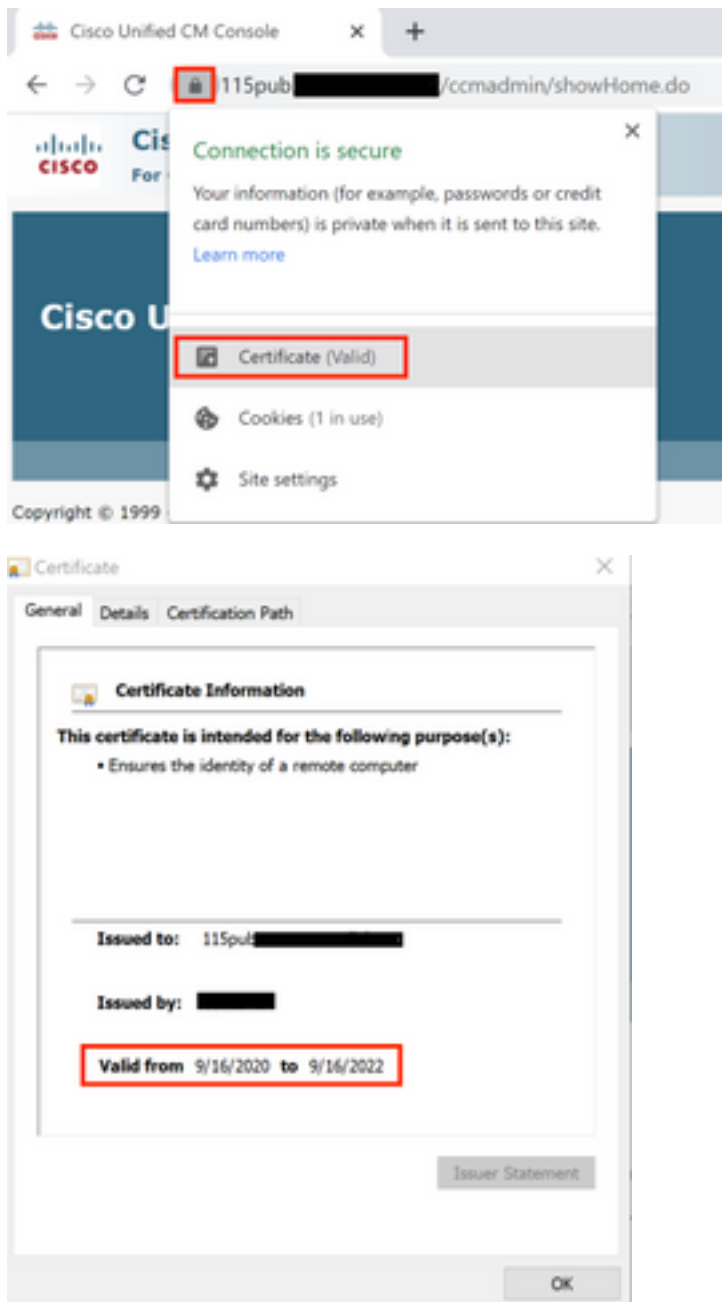
Note: Some CAs do not provide an intermediate certificate, if only the Root certificate was provided, this step can be omitted.

- CA-signed certificate as tomcat. **Navigate to Certificate Management > Upload certificate > Certificate Purpose: tomcat**. Set the description of the certificate and browse the CA-signed certificate file for the current CUCM node.

Note: At this point, CUCM compares the CSR and the uploaded CA-signed certificate. If the information matches, the CSR disappears, and the new CA-signed certificate is uploaded. If you receive an error message after the certificate is uploaded, please refer to the Upload Certificate Common Error Messages SECTION.

Step 6. To get the new certificate applied to the server, the Cisco Tomcat service needs to be restarted via CLI (start with Publisher, and then subscribers, one at a time), use the command `utils service restart Cisco Tomcat`.

To validate the Tomcat certificate is now used by CUCM. Navigate to the web page of the node and select Site Information (Lock Icon) in the Browser, click the certificate option, and verify the date of the new certificate.



CallManager Certificate

Caution: Do not regenerate CallManager and TVS certificates at the same time. This causes an unrecoverable mismatch to the installed ITL on endpoints which requires the removal of

the ITL from ALL endpoints in the cluster. Finish the entire process for CallManager and once the phones are registered back, start the process for the TVS.

Note: To determine if the cluster is in Mixed Mode, navigate to **Cisco Unified CM Administration > System > Enterprise Parameters > Cluster Security Mode (0 == Non-Secure; 1 == Mixed Mode)**.

For all the CallManager nodes of the cluster:

Step 1. Navigate to Cisco Unified OS Administration > Security > Certificate Management > Find and verify the expiration date of the CallManager certificate.

Step 2. Click Generate CSR > Certificate Purpose: CallManager. Select the desired settings for the certificate, then click Generate. Wait for the success message to appear and click Close.

Step 3. Download the CSR. Click **Download CSR**. Select **Certificate Purpose: CallManager** and click **Download**.

Step 4. Send the CSR to the Certificate Authority .

Step 5. The Certificate Authority returns two or more files for the signed certificate chain. Upload the certificates in this order:

- Root CA certificate as CallManager-trust. Navigate to Certificate Management > Upload certificate > Certificate Purpose: CallManager-trust. Set the description of the certificate and browse the Root certificate file.
- Intermediate certificate as CallManager-trust (Optional). Navigate to Certificate Management > Upload certificate > Certificate Purpose: CallManager-trust. Set the description of the certificate and browse the intermediate certificate file.

Note: Some CAs do not provide an intermediate certificate, if only the Root certificate was provided, this step can be omitted.

- CA-signed certificate as CallManager. Navigate to Certificate Management > Upload certificate > Certificate Purpose: CallManager. Set the description of the certificate and browse the CA-signed certificate file for the current CUCM node.

Note: At this point, CUCM compares the CSR and the uploaded CA-signed certificate. If the information matches, the CSR disappears, and the new CA-signed certificate is uploaded. If you receive an error message after the certificate is uploaded, please refer to the **Upload Certificate Common Error Messages** section.

Step 6. If the cluster is in Mixed Mode, update the CTL before the services restart: [Token](#) or [Tokenless](#). If the cluster is in Non-Secure Mode, skip this step and proceed with the services restart.

Step 7. To get the new certificate applied to the server the required services must be restarted (only if the service runs and is active). Navigate to:

- Cisco Unified Serviceability > Tools > Control Center - Network Services > Cisco Trust Verification Service
- Cisco Unified Serviceability > Tools > Control Center - Feature Services > Cisco TFTP
- Cisco Unified Serviceability > Tools > Control Center - Feature Services > Cisco CallManager

- Cisco Unified Serviceability > Tools > Control Center - Feature Services > Cisco CTIManager

Step 8. Reset all the phones:

- Navigate to Cisco Unified CM Administration > System > Enterprise Parameters > Reset. A pop-up window appears with the statement You are about to reset all devices in the system. This action cannot be undone. Continue? select ok and then click Reset .

Note: Monitor device registration via RTMT. Once all phones register back you can proceed with the next certificate type.

IPSec Certificate

Caution: A backup or restore task must not be active when the IPSec certificate is regenerated.

For all the nodes (CallManager and IM&P) of the cluster:

Step 1. Navigate to Cisco Unified OS Administration > Security > Certificate Management > Find and verify the expiration date of the ipsec certificate.

Step 2. Click **Generate CSR > Certificate Purpose: ipsec**. Select the desired settings for the certificate, then click **Generate**. Wait for the success message to appear and then click **Close**.

Step 3. Download the CSR. Click **Download CSR**. Select Certificate Purpose ipsec and click **Download**.

Step 4. Send the CSR to the Certificate Authority.

Step 5. The Certificate Authority returns two or more files for the signed certificate chain. Upload the certificates in this order:

- Root CA certificate as ipsec-trust. Navigate to **Certificate Management > Upload certificate > Certificate Purpose: ipsec-trust**. Set the description of the certificate and browse the Root certificate file.
- Intermediate certificate as ipsec-trust (Optional). Navigate to **Certificate Management > Upload certificate > Certificate Purpose: tomcat-trust**. Set the description of the certificate and browse the intermediate certificate file.

Note: Some CAs do not provide an intermediate certificate, if only the Root certificate was provided, this step can be omitted.

- CA-signed certificate as ipsec. Navigate to **Certificate Management > Upload certificate > Certificate Purpose: ipsec**. Set the description of the certificate and browse the CA-signed certificate file for the current CUCM node.

Note: At this point, CUCM compares the CSR and the uploaded CA-signed certificate. If the information matches, the CSR disappears, and the new CA-signed certificate is uploaded. If you receive an error message after the certificate is uploaded, please refer to the **Upload Certificate Common Error Messages** section.

Step 6. To get the new certificate applied to the server the required services must be restarted (only if the service runs and is active). Navigate to:

- **Cisco Unified Serviceability > Tools > Control Center - Network Services > Cisco DRF Master(Publisher)**
- **Cisco Unified Serviceability > Tools > Control Center - Network Services > Cisco DRF Local (Publisher and Subscribers)**

CAPF Certificate

Note: To determine if the cluster is in Mixed Mode, navigate to **Cisco Unified CM Administration > System > Enterprise Parameters > Cluster Security Mode (0 == Non-Secure; 1 == Mixed Mode)**.

Note: CAPF service only runs in the Publisher, and that is the only certificate used. It is not necessary to get Subscriber nodes signed by a CA because they are not used. If the certificate is expired in the Subscribers and you would like to avoid the alerts of expired certificates, you can regenerate subscriber CAPF certificates as Self-Signed. For more information, see [CAPF Certificate as Self-Signed](#).

In the Publisher:

Step 1. Navigate to **Cisco Unified OS Administration > Security > Certificate Management > Find** and verify the expiration date of the CAPF certificate.

Step 2. Click **Generate CSR > Certificate Purpose: CAPF**. Select the desired settings for the certificate, then click **Generate**. Wait for the success message to appear and click **Close**.

Step 3. Download the CSR. Click **Download CSR**. Select Certificate Purpose CAPF and click **Download**.

Step 4. Send the CSR to the Certificate Authority.

Step 5. The Certificate Authority returns two or more files for the signed certificate chain. Upload the certificates in this order:

- Root CA certificate as CAPF-trust. Navigate to **Certificate Management > Upload certificate > Certificate Purpose: CAPF-trust**. Set the description of the certificate and browse the Root certificate file.
- Intermediate certificate as CAPF-trust (Optional). Navigate to **Certificate Management > Upload certificate > Certificate Purpose: CAPF-trust**. Set the description of the certificate and browse the intermediate certificate file.

Note: Some CAs do not provide an intermediate certificate, if only the Root certificate was provided, this step can be omitted.

- CA-signed certificate as CAPF. Navigate to **Certificate Management > Upload certificate > Certificate Purpose: CAPF**. Set the description of the certificate and browse the CA-signed certificate file for the current CUCM node.

Note: At this point, CUCM compares the CSR and the uploaded CA-signed certificate. If the information matches, the CSR disappears, and the new CA-signed certificate is uploaded. If you receive an error message after the certificate is uploaded, please refer to the **Upload Certificate Common Error Messages** section.

Step 6. If the cluster is in Mixed Mode, update the CTL before the services restart: [Token](#) or [Tokenless](#). If the cluster is in Non-Secure Mode, skip this step and proceed with the service restart.

Step 7. To get the new certificate applied to the server the required services must be restarted (only if the service runs and is active). Navigate to:

- **Cisco Unified Serviceability > Tools > Control Center - Network Services > Cisco Trust Verification Service** (All nodes where the service runs)
- **Cisco Unified Serviceability > Tools > Control Center - Feature Services > Cisco TFTP** (All nodes where the service runs)
- **Cisco Unified Serviceability > Tools > Control Center - Feature Services > Cisco Certificate Authority Proxy Function** (Publisher)

Step 8. Reset all the phones:

- Navigate to **Cisco Unified CM Administration > System > Enterprise Parameters > Reset**. A pop-up window appears with the statement You are about to reset all devices in the system. This action cannot be undone. Continue? select **OK** and then click **Reset**.

Note: Monitor device registration via RTMT. Once all phones register back you can proceed with the next certificate type.

TVS Certificate

Caution: Do not regenerate CallManager and TVS certificates at the same time. This causes an unrecoverable mismatch to the installed ITL on endpoints which requires the removal of the ITL from ALL endpoints in the cluster. Finish the entire process for CallManager and once the phones are registered back, start the process for the TVS.

For all the TVS nodes of the cluster:

Step 1. Navigate to **Cisco Unified OS Administration > Security > Certificate Management > Find** and verify the expiration date of the TVS certificate.

Step 2. Click **Generate CSR > Certificate Purpose: TVS**. Select the desired settings for the certificate, then click **Generate**. Wait for the success message to appear and click **Close**.

Step 3. Download the CSR. Click **Download CSR**. Select **Certificate Purpose TVS** and click **Download**.

Step 4. Send the CSR to the Certificate Authority.

Step 5. The Certificate Authority returns two or more files for the signed certificate chain. Upload

the certificates in this order:

- Root CA certificate as TVS-trust. Navigate to **Certificate Management > Upload certificate > Certificate Purpose: TVS-trust**. Set the description of the certificate and browse the Root certificate file.
- Intermediate certificate as TVS-trust (Optional). Navigate to **Certificate Management > Upload certificate > Certificate Purpose: TVS-trust**. Set the description of the certificate and browse the intermediate certificate file.

Note: Some CAs do not provide an intermediate certificate, if only the Root certificate was provided, this step can be omitted.

- CA-signed certificate as TVS. Navigate to **Certificate Management > Upload certificate > Certificate Purpose: TVS**. Set the description of the certificate and browse the CA-signed certificate file for the current CUCM node.

Note: At this point, CUCM compares the CSR and the uploaded CA-signed certificate. If the information matches, the CSR disappears, and the new CA-signed certificate is uploaded. If you receive an error message after the certificate is uploaded, please refer to the **Upload Certificate Common Error Messages** section.

Step 6. To get the new certificate applied to the server the required services must be restarted (only if the service runs and is active). Navigate to:

- **Cisco Unified Serviceability > Tools > Control Center - Feature Services > Cisco TFTP** (All nodes where the service runs)
- **Cisco Unified Serviceability > Tools > Control Center - Network Services > Cisco Trust Verification Service** (All nodes where the service runs)

Step 7. Reset all the phones:

- Navigate to **Cisco Unified CM Administration > System > Enterprise Parameters > Reset**. A pop-up window appears with the statement You are about to reset all devices in the system. This action cannot be undone. Continue? select **OK** and then click **Reset**.

Note: Monitor device registration via RTMT. Once all phones register back you can proceed with the next certificate type.

Troubleshoot Common Uploaded Certificate Error Messages

In this section are listed some of the most common Error Messages when a CA-signed certificate is uploaded.

CA Certificate is Not Available in the Trust-Store

This error means the root or intermediate certificate was not uploaded to the CUCM. Verify those two certificates were uploaded as trust-store before the service certificate is uploaded.

File /usr/local/platform/.security/tomcat/keys/tomcat.csr Does Not Exist

This error appears when a CSR does not exist for the certificate (tomcat, callmanager, ipsec, capf, tvs). Verify the CSR was created before and the certificate was created based on that CSR.

Important points to keep in mind:

- Only 1 CSR per server and certificate type can exist. That means that if a new CSR is created, the old one is replaced.
- Wildcard certificates are not supported by CUCM.
- It is not possible to replace a service certificate that is currently in place without a new CSR.
- Another possible error for the same issue is “The file /usr/local/platform/upload/certs//tomcat.der could not be uploaded.” This depends on the CUCM version.

CSR Public Key and Certificate Public Key Do Not Match

This error appears when the certificate provided by the CA has a different public key than the one sent in the CSR file. Possible reasons are:

- The incorrect certificate (maybe from another node) is uploaded.
- The CA certificate was generated with a different CSR.
- The CSR was regenerated, and it replaced the old CSR that was used to get the signed certificate.


To verify the CSR and certificate public key match, there are multiple tools online such as [SSL](#).

What to Check

- Check if a Certificate and a Private Key match
- Check if a CSR and a Certificate match

Enter your Certificate:

```
Tj13aw4xmxDtj1DRFAsQ049UHvBgjT1ws2v5j1hwu2vYdmjzAMsQ049Uzvy
dmjZXMsQ049QZ9uZmindXJhdGhvbXEQz1Jb2xsYWtsREM9bXg/Y2VydGlmawWnh
dGV5ZXZvY2F0aw9uTGldZD9lYXNpZ29laWVjdENsYXNzPWNSTERpc3RyaWw1dGlv
bG9wW50MIG7BggBgEFBQcBAQ5BnjCBqzCBqAYIKwYBBQUHMAKGZtsZGFwOi9v
L0NOPUNvGxhyYUyMENBLENOPUFjQSkxDTj1QdWJsawMMjBLZXXMjBTZjZawWnl
cyxDtj1TzQzZWwNlcyxDtj1Db25maWd1cmF0aW9uLERDPWNvbGxhyXEQz1teD9j
QUlnicRpZmljYXNpZ2hc2U/b2jqzWw0Qzxc3M9Y2VydGlmawWnhdGlvbGkF1dGhw
cmI0eTAhBgkrBgEEAYl3FAIEFB45AFcAZQBIAFMAZQBvAHIYAZQByMAOGCSqGSIb3
DQEBCWUAA4BAQCFqzBc28CMxkunQavdYUioDrfdpMLSA/7thisqW55x/bEQs
9LyqftmidCmkoMPGk4k2vMie40TpKBYAQvbrApG001mWv5u+f1Io9PvrygWtyL
D+ve7rMp8sirVo1Tmhe/26in3lbn+Ofwe5NuvC3wNudLRR3904KcaFCcsVLQ6aw
PtmvAz/9K2GRhzqacd9VLUJuoWTKDj2QsladcgSI5cvFMz3BBf0MjGBNX16jGIIQ
yZZbr6Gm4pa4yK6SUrC0xHylomecYeRheKuSkuPusOeEwv55zj0QMT7P4/Ww
zBpTzTkrQdODAzhjGuJP+yBa75OGGTZWVvg1
-----END CERTIFICATE-----
```

 The certificate and CSR do NOT match!

 Certificate Hash:
684ad486131856ce0015d4b3e615e1ed
3b3bef6b8f590a493921661a4c4f62e9

 CSR Hash:
635f45c1ebcd876526a3133d1ee73d9a8
4544876fdbbc8dc3a4d8fed377dcc635

Enter your CSR:

```
q+hjjgokSx+ogqVavFSNRdqTh0Grls1ga0pj5sGxOOLCqAtQHEARnEcGyanZzrK
jSjTQHfBJStDz2vDyD3w5iyhwnlqkMUl3IRD5qcSDvYfLGLS8hB9y5HQtaDA3
1hwJ5Q4RXk2188EScLlB3bAozEgZ05Vw4rH5fP809e/CTWsxZtBfLgytvCDGk
OGrdWzXlLuaUV2u29jvYmLD70CNvXCM9XypLj65uyMufOBfh+s0P1Mr7gal3b
hXkS4ZjoFIMkXyBWSPDwexH7XfD+HqQPeM4Y50N4YqhxAgMBAAQGb2BTBkgkqkIG
9w0BCC4xyDBeMBOGA1UdjqQWMBQGCCsGAQUFBwMBBggrBgEFBQcDAJALBgVHQBE
BAMCBLAwMAYDVR0RBCKw4IOY3VjB55jB2xsYWubXCFTEhNzB1Y15jdWwNlMvNv
bGxhyY5teDANBgkqhkiG9w0BAQsFAAOCQAQEAAhBgli76T59rWXOFjsj7hsj36vf
ubcW7HGfPrNy6/pI9UydunRkXkDxQTizZWwC9IOA3/fpcjrz+8LdHtr1FnnwBwCV
YcAs9oNwZsmU1+clbTH1H5g8FFoHADg+FR3+1AE7GNfGk0CA0RlpRihZPGzQ6dO
6ZTR5fQ45LbcWxe4EZ05xjEQW7Zrkjfwby1GQYyG3CuXCEY3UunMCZnWjMnXkG0
n7B1nNdx7YbgFz1IeY+ZozPFWgWbu2HwChuH1bOAMUpkwiFebQZn9H+R7drjBAZR
IeXEYWL739M7BTveNmHoOnR65kwhYbb7jqDjnhXcSy9R0S052vUhkj7Hw==
-----END CERTIFICATE REQUEST-----
```

Another possible error for the same issue is “The file /usr/local/platform/upload/certs/tomcat.der could not be uploaded.” This depends on the CUCM version.

CSR Subject Alternate Name (SAN) and Certificate SAN Does Not Match

The SANs between the CSR and the Certificate must be the same. This prevents certification for Domains that are not allowed. To verify the SAN mismatch, follow the next steps:

1. Decode the CSR and the certificate (base 64). There are different decoders available online, such as the [Decoder](#).
2. Compare the SAN entries and verify all of them match. The order is not important, but all the entries in the CSR must be the same in the Certificate.

For example, the CA-signed certificate has two extra SAN entries added, the Common Name of

the certificate and an extra IP address.

CSR Summary	
Subject domain.com	
RDN	
Common Name (CN)	pub-ms.domain.com
Organizational Unit (OU)	Collaboration
Organization (O)	Cisco
Locality (L)	CUCM
State (ST)	CDMX
Country (C)	MX
Properties domain.com	
Property	
Subject	CN = pub-ms.domain.com,OU = Collaboration,O = Cisco,L = CUCM,ST = CDMX,C = MX
Key Size	2048 bits
Fingerprint (SHA-1)	C3:87:05:C8:79:F8:88:4A:86:96:77:0A:C5:88:63:27:55:3C:A4:84
Fingerprint (MD5)	CE:5C:9D:59:3F:8E:E3:26:C5:23:9D:A2:F1:CA:68:86
SANS	domain.com, sub.domain.com, pub.domain.com, imp.domain.com

Certificate Summary	
Subject	
RDN	
Common Name (CN)	pub-ms.domain.com
Organizational Unit (OU)	Collaboration
Organization (O)	Cisco
Locality (L)	CUCM
State (ST)	CDMX
Country (C)	MX
Properties	
Property	
Issuer	CN = Collab CA,DC = collab,DC = mx
Subject	CN = pub-ms.domain.com,OU = Collaboration,O = Cisco,L = CUCM,ST = CDMX,C = MX
Valid From	17 Sep 2020, 1:24 a.m.
Valid To	17 Sep 2022, 1:24 a.m.
Serial Number	69:00:00:00:2D:5A:92:EB:EA:9A:85:65:C4:00:00:00:00:2D(234157824608120584568396993281333940237893677)
CA Cert	No
Key Size	2048 bits
Fingerprint (SHA-1)	4E:15:F7:F3:9C:37:A9:8D:52:1A:6C:6D:4D:7D:AF:FE:08:EB:BD:0F
Fingerprint (MD5)	D8:22:33:92:59:F7:70:2A:D5:28:90:2D:57:C0:F7:EC
SANS	sub-ms.domain.com, domain.com, sub.domain.com, pub.domain.com, imp.domain.com, 10.xx.xx.xx

3. Once you have identified the SAN does not match, there are two options to fix this:

1. Request your CA administrator to issue a certificate with the exact same SAN entries that are sent in the CSR.
2. Create a CSR in CUCM that matches the requirements of the CA.

To modify the CSR created by CUCM:

1. If the CA removes the domain, a CSR in CUCM can be created without the domain. While the CSR creation, remove the domain that is populated by default.
2. If a [Multi-SAN certificate](#) is created, there are some CA that do not accept the “-ms” in the Common Name. The “-ms” can be removed from the CSR when it is created.

Generate Certificate Signing Request

Generate Close

Status

Warning: Generating a new CSR for a specific certificate type will overwrite the existing CSR for that type

Generate Certificate Signing Request

Certificate Purpose** tomcat

Distribution* Multi-server(SAN)

Common Name* 115pub-rms

Subject Alternate Names (SANs)

Auto-populated Domains

115imp
115pub
115sub

Parent Domain

Other Domains

Key Type** RSA

Key Length* 2048

Hash Algorithm* SHA256

Generate Close

3. To add an Alternative Name apart from the ones autocompleted by CUCM:

1. If Multi-SAN certificate is used, more FQDN can be added. (IP addresses are not accepted.)

Generate Certificate Signing Request

Generate Close

Status

Warning: Generating a new CSR for a specific certificate type will overwrite the existing CSR for that type

Generate Certificate Signing Request

Certificate Purpose** tomcat

Distribution* Multi-server(SAN)

Common Name* 115pub-ms-...

Subject Alternate Names (SANs)

Auto-populated Domains

115imp
115pub
115sub

Parent Domain

Other Domains

extrahostname.domain.com

Choose File For more inform

Add

Key Type** RSA

Key Length* 2048

Hash Algorithm* SHA256

Generate Close

b. If the certificate is Single Node, use the `set web-security` command. This command applies even for Multi-SAN certificates. (Any kind of domain can be added, also IP addresses are permitted.)

For more information, see the [Command Line Reference Guide](#).

Trust Certificates with the Same CN are Not Replaced

CUCM was designed to store only one certificate with the same Common Name and same certificate type. This means that if a certificate that is tomcat-trust, already exists in the database and it needs to be replaced with a recent one with the same CN, CUCM removes the old certificate and replaces it with the new one.

There are some cases when CUCM does not replace the old certificate:

1. The certificate uploaded is expired: CUCM does not allow you to upload an expired certificate.
2. The old certificate has a more recent "FROM" date than the new certificate. CUCM keeps the most recent certificate and to have an older "FROM" date catalogs it as older. For this scenario, it is necessary to delete the unwanted certificate and then upload the new one.

