

# CUCM证书管理和修改提示

## 目录

1. [简介](#)
2. [证书如何存储？](#)
3. [CertMgmt和证书CN设计概述](#)
4. [示例](#)
  - 4.A. [插入一新的Tomcat托拉斯证书。](#)
  - 4.B. [删除Tomcat托拉斯证书](#)
  - 4.C. [重新生成在发行商节点的Tomcat证书](#)
5. [故障排除](#)
  - 5.A. [已知问题说明-目录](#)
  - 5.B. [提示和窍门](#)
  - 5.C. [CCM服务证书验证](#)
  - 5.D. [Tomcat托拉斯存储和keystore验证](#)

## 1. 简介

本文描述在Cisco Unified操作系统的证书管理是非常必备组件CUCM和VOS，因为许多应用程序和功能例如依靠证书：默认情况下TV、CAPF、安全或者Unified维护性pages.CertMgmt为其他组件提供证书和API单个信息库为了容易地包括安全和安全数据transfer(TLS)。

“思科证书修改提示”服务主要介绍synchronize在节点间的一些证书在集群和由ServM监控。它做证书供应更加容易和更加快速向更大的部署的管理员。

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## 2. 证书如何存储？

Certs在文件系统存储以及在数据库和CN服务保持同步他们在节点之间。文件系统证书比DB证书给更高的优先。

DB表：

- 证书-存储所有证书详细信息类似主题、发布者、序列，证书在PEM格式等。
- CERTIFICATESERVICECERTIFICATEMAP -在证书和证书类型例如CallManager托拉斯之间的mapp，CAPF托拉斯
- CERTIFICATEHASHMAP -在证书的证书和哈希的之间mapp
- CERTIFICATEPROCESSNODEMAP -在证书和processnode之间的mapp
- CERTIFICATETRUSTROLEMAP -在证书和role\_enum之间的mapp
- TYPECERTIFICATESERVICE -即您在CERTIFICATESERVICECERTIFICATEMAP能找到到证书类型的地图enums (Tomcat、Tomcat托拉斯，CallManager等)

在文件系统的存储设备：

- certs：公共密钥(X509Certificate -拥有证书) (与.description的.der和.pem格式)并且在pkcs-12

keystore格式。

- 密钥：专用密钥和passphrases和CSR。
- 托拉斯CERT：所有信任证书(.der & .pem格式)并且在PKCS-12 keystore格式。

示例路径：

```
/usr/local/cm/.security/CallManager/
```

```
/usr/local/cm/.security/CAPF
```

```
/usr/local/platform/.security/tomcat
```

托拉斯CERT子目录包含参考有特别名的.pem文件包括openssl哈希和典型地.0分机可以使用作为iterator的符号链接，当您安排同样哈希生成时。参考下面示例：

```
[root@cucmpub trust-certs]# pwd
/usr/local/cm/.security/CallManager/trust-certs

[root@cucmpub trust-certs]# ls -l cucmpub.pem
-rwxr-xr-x 1 certbase ccmbase 993 Mar 15 2013 cucmpub.pem

[root@cucmpub trust-certs]# openssl x509 -noout -hash -in cucmpub.pem
5eb51e07

[root@cucmpub trust-certs]# ls -l 5eb51e07.0 lrwxrwxrwx 1 certbase ccmbase 11 May 13 17:16
5eb51e07.0 -> cucmpub.pem
```

### 3. CertMgmt和证书CN设计概述

当证书是加载在OS管理页面下时，在.PEM和.DER格式的文件写入到文件系统，并且DB表更新。

这些证书获得其次复制通过DB复制对在集群的其他节点。

证书一些类型由在远程节点的思科证书修改提示进程在文件系统拾起并且上传由该同样进程。

为在这些表的更改通知的思科证书修改提示进程获得：证书和CERTIFICATESSERVICECERTIFICATEMAP。

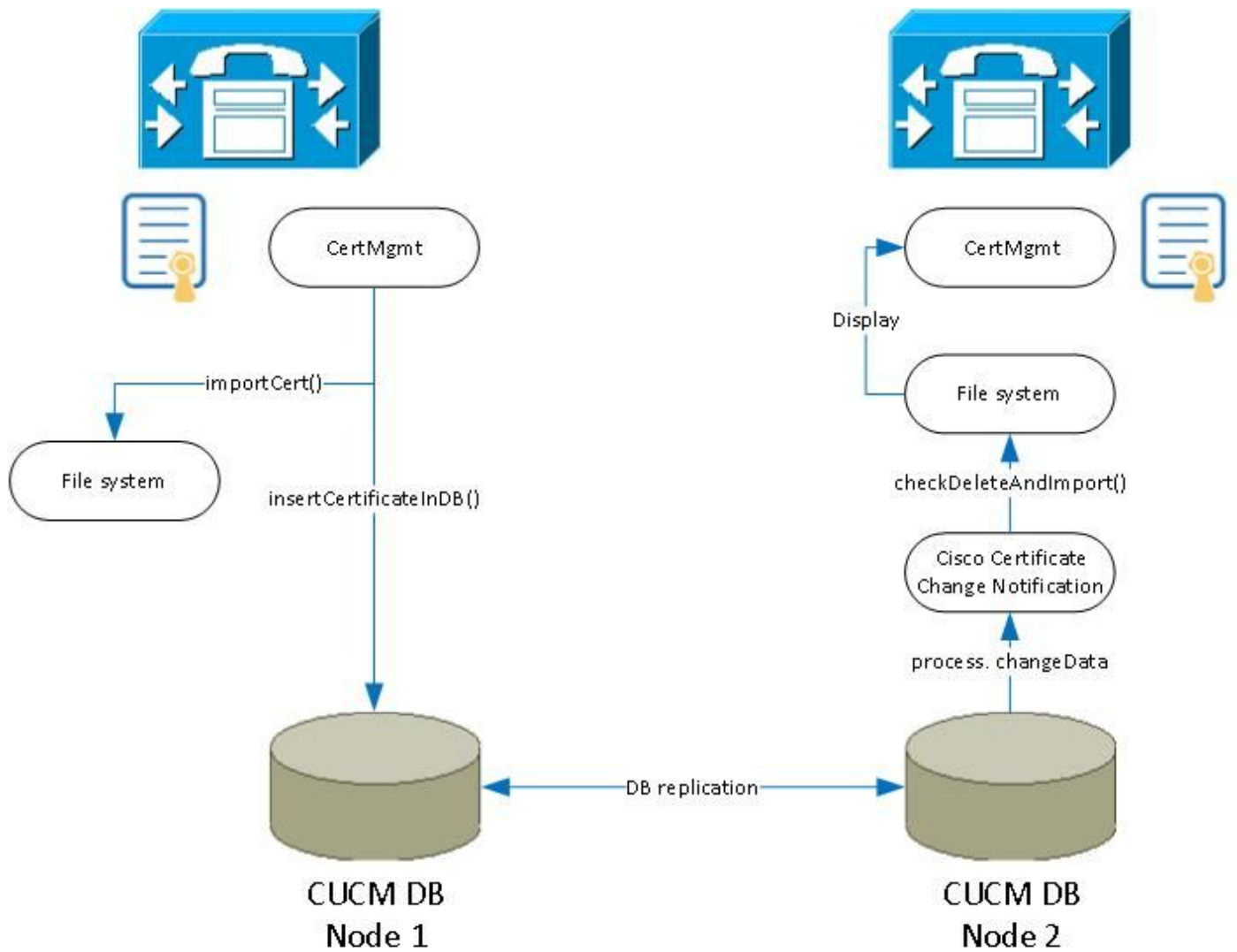
思科证书修改提示拾起的certs配置跟随配置文件/usr/local/platform/conf/certM.conf：

```
CHANGE_NOTIFICATION_UNIT=tomcat， Tomcat托拉斯， 目录托拉斯， CallManager， 电话
SAST托拉斯， CallManager托拉斯
```

默认情况下另外，服务运行每30个min(1800秒)保持所有certs同步，此计时器上面文件配置：  
CN\_SYNC\_TIMER=1800

一旦上传，复制对远程节点和上传那里在文件系统上OS管理员页面将显示证书。

值得注意的是OS管理员页面和所有其他服务读了证书从文件系统和不从DB。



## 4. 示例

在此部分您将考虑证书管理3个不同的方案。

对于每个方案您详细按照进程并且使用屏幕画面和日志。

对于这些方案的您以CUCM版本9.1.2.10000-28使用一2个节点集群。

**图例：**

CM -证书管理(日志可以被找到在‘文件列表activelog平台/日志/下’)

certCN -证书修改提示服务(日志可以被找到在‘文件列表activelog平台/日志/下’)

根据CUCM集群的示例9.1.2.10000-28，两节点：

PUB， IP:10.48.46.29， HOSTNAME:CUCM861

SUB， IP:10.48.46.30， HOSTNAME:CUCM861s

证书在OS管理员页面被提交用在十进制形式的序列号。DB存储在HEX的 these 编号。为了转换在HEX/DEC之间的序列号您能使用此联机[工具](#)。

日志片断包含一些一些评论(粗体的，从‘##开始’)。

### 4.A. 插入新的Tomcat托拉斯证书。

在第一个方案中您在集群的两节点上传证书到Tomcat托拉斯通过OS管理员页面，在步骤之下将发生：

a. 请手工上传证书

b. 证书在文件系统将存储由CM。

c. 证书将插入到DB由CM。

d. 证书通过对用户的DB复制将复制。在两节点的CertCN (客栈和sub)将通知关于更改。它不会进行在客栈节点的一操作。

e. 在子节点的CertCN进口证明书对文件系统和添加它到keystore。

f. 在这些步骤以后证书将是可视在GUI在OS管理员页面下。

a. 当证书加载从PEM文件发生。请在屏幕画面之下请跟随：

The image shows a screenshot of a web application interface for managing certificates. The main window is titled "Certificate List" and contains a table of certificates. A search filter is applied to find certificates where the name begins with "tomcat". The table lists four records: "tomcat", "tomcat-trust", "tomcat-trust", and "tomcat-trust".

Certificate Name	Certificate Type	.PEM File
tomcat	certs	<a href="#">tomcat.pem</a>
tomcat-trust	trust-certs	<a href="#">CUCM861.pem</a>
tomcat-trust	trust-certs	<a href="#">CUCM861s.pem</a>
tomcat-trust	trust-certs	<a href="#">VeriSign_Class_3_Secure_Server_CA_-_G3.p...</a>

Below the table are buttons for "Generate New", "Upload Certificate/Certificate chain", "Download CTL", and "Generate CSR".

An "Upload Certificate/Certificate chain" dialog box is overlaid on the main window. It shows the status "Ready" and a form for uploading a certificate. The "Certificate Name\*" field is set to "tomcat-trust" and is highlighted with a red box. The "Upload File" field shows a file named "tomcat.pem" with a "Przejrzyj..." button next to it. The dialog also includes "Upload File" and "Close" buttons at the bottom.

**Certificate List**

Generate New Upload Certificate/Certificate chain Download CTL Generate CSR

**Status**  
5 records found

**Certificate List (1 - 5 of 5)**

Find Certificate List where Certificate Name begins with tomcat Find Clear Filter

Certificate Name	Certificate Type	.PEM File	.DER File	Description
tomcat	certs	tomcat.pem	tomcat.der	Self-signed certificate generated by system
tomcat-trust	trust-certs	<u>CUCM9X.pem</u>	<u>CUCM9X.der</u>	Signed Certificate
tomcat-trust	trust-certs	<u>CUCM851.pem</u>	<u>CUCM851.der</u>	Trust Certificate
tomcat-trust	trust-certs	<u>CUCM861s.pem</u>	<u>CUCM861s.der</u>	Trust Certificate
tomcat-trust	trust-certs	<u>VeriSign_Class_3_Secure_Server_CA - G3.pem</u>	<u>VeriSign_Class_3_Secure_Server_CA - G3.der</u>	Trust Certificate

Generate New Upload Certificate/Certificate chain Download CTL Generate CSR

Upload Certificate/Certificate chain - Mozilla Firefox

https://ghnizdur-1:8443/cmplatform/certificateUpload.do

**Upload Certificate/Certificate chain**

Upload File Close

**Status**  
Success: Certificate Uploaded

**Upload Certificate/Certificate chain**

Certificate Name\* tomcat-trust

Description



Upload File Przeglądaj... Nie wybrano pliku.

Upload File Close

\*. indicates required item.


Show ▾ Settings ▾ Security ▾ Software Upgrades ▾ Services ▾ Help ▾

## Certificate Configuration

 Delete  Download

---

**Status**

 Status: Ready

---

**Certificate Settings**

File Name CUCM9X.pem  
 Certificate Name tomcat-trust  
 Certificate Type trust-certs  
 Certificate Group product-cpi  
 Description Signed Certificate

---

**Certificate File Data**

```
[
Version: V3
Serial Number: 162503161730851213217569888696899890998
Signature Algorithm: SHA256withRSA (1.2.840.113549.1.1.11)
Issuer Name: L=Krakow, ST=Malopolska, CN=CUCM9X, OU=TAC, O=Cisco Systems, C=PL
Validity From: Mon Aug 04 15:19:07 CEST 2014
To: Sat Aug 03 15:19:06 CEST 2019
Subject Name: L=Krakow, ST=Malopolska, CN=CUCM9X, OU=TAC, O=Cisco Systems, C=PL
Key: RSA (1.2.840.113549.1.1.1)
Key value:
3082010a0282010100cb42282338f20e9682fe018c4f0b0951aa32bc0771c1184052fb2ba3b96aafce37e1d002964115d4f0f6a
2f452ff9c02f09329f5ec978409225eafc5c31606ac05e92d4e230004f43ca1636664b9188b5f43b6e1e4677f7d0578f1fd8e5e5e55
553097808a6954b7c5af72abac9a61ae28ecf13a432a4af520c82a6d881d0ea3d475f6e995cb28b2499878452b972715ba3eed45
3376d884bb7f97050b674d0b12fdb33ba156dcb32a98b9a41d76b4f966bce8f50123c7806e33adbdbd8e611c82623f390e4ee2c
692f9d123c7dbbe83dae6acdbaf674a60b6c1c75372228de3d90a72a6e49138a220b5a88db35304de72f91893e3126745de5f237
65ab910203010001
Extensions: 3 present
[
Extension: KeyUsage (OID.2.5.29.15)
Critical: false
Usages: digitalSignature, keyEncipherment, dataEncipherment, keyAgreement, keyCertSign,
]
[
Extension: ExtKeyUsageSyntax (OID.2.5.29.37)
Critical: false
Usage oids: 1.3.6.1.5.5.7.3.1, 1.3.6.1.5.5.7.3.2, 1.3.6.1.5.5.7.3.5,
]
]
```

我们新的cert序列号：

十二月：162503161730851213217569888696899890998

十六进制：7A40F8743A793B44FE802B5F3E1E6F36

证书写入到文件系统(您将按照在以下步骤的此进程)

```
[root@CUCM861 tomcat]# pwd /usr/local/platform/.security/tomcat [root@CUCM861 tomcat]# ls -la
total 40 drwxr-xr-x 5 root root 4096 Apr 4 12:47 . drwxr-xr-x 5 root root 4096 Apr 4 12:47 ..
drwxr-xr-x 2 certbase ccmbase 4096 Aug 2 23:36 certs drwxr-xr-x 2 certbase ccmbase 4096 Aug 2
23:36 keys drwxr-xr-x 2 certbase ccmbase 4096 Aug 4 15:21 trust-certs [root@CUCM861 tomcat]# ls
-la certs total 48 drwxr-xr-x 2 certbase ccmbase 4096 Aug 2 23:36 . drwxr-xr-x 5 root root 4096
Apr 4 12:47 .. -rwxr-xr-x 1 certbase ccmbase 939 Aug 2 23:36 tomcat.der -rwxr-xr-x 1 certbase
ccmbase 64 Aug 2 23:36 tomcat.description -rwxr-xr-x 1 certbase ccmbase 2598 Aug 2 23:36
tomcat.keystore -rwxr-xr-x 1 certbase ccmbase 1326 Aug 2 23:36 tomcat.pem
[root@CUCM861 tomcat]# ls -la trust-certs total 140 drwxr-xr-x 2 certbase ccmbase 4096 Aug 4
15:21 . drwxr-xr-x 5 root root 4096 Apr 4 12:47 .. lrwxrwxrwx 1 certbase ccmbase 11 Aug 4 15:21
101f99a6.0 -> CUCM861.pem lrwxrwxrwx 1 certbase ccmbase 10 Aug 4 15:21 25ffab9b.0 -> CUCM9X.pem
```

```
lrwxrwxrwx 1 certbase ccmbase 42 Aug 4 15:21 7e0370f0.0 -> VeriSign_Class_3_Secure_Server_CA_-_G3.pem -rwxr-xr-x 1 certbase ccmbase 939 Aug 2 23:36 CUCM861.der -rwxr-xr-x 1 certbase ccmbase 44 Aug 2 23:36 CUCM861.description -rwxr-xr-x 1 certbase ccmbase 1326 Aug 2 23:36 CUCM861.pem -rwxr-xr-x 1 certbase ccmbase 941 Aug 2 22:51 CUCM861s.der -rwxr-xr-x 1 certbase ccmbase 44 Aug 2 22:51 CUCM861s.description -rwxr-xr-x 1 certbase ccmbase 1330 Aug 2 22:51 CUCM861s.pem -rwxr-xr-x 1 certbase ccmbase 953 Aug 4 15:21 CUCM9X.der -rwxr-xr-x 1 certbase ccmbase 45 Aug 4 15:21 CUCM9X.description -rwxr-xr-x 1 certbase ccmbase 1346 Aug 4 15:21 CUCM9X.pem lrwxrwxrwx 1 certbase ccmbase 12 Aug 4 15:21 d0aacffb.0 -> CUCM861s.pem -rwxr-xr-x 1 certbase ccmbase 4939 Aug 4 15:21 tomcat-trust.keystore -rwxr-xr-x 1 certbase ccmbase 1520 Apr 4 12:47 VeriSign_Class_3_Secure_Server_CA_-_G3.der -rwxr-xr-x 1 certbase ccmbase 44 Apr 4 12:47 VeriSign_Class_3_Secure_Server_CA_-_G3.description -rwxr-xr-x 1 certbase ccmbase 2114 Apr 4 12:47 VeriSign_Class_3_Secure_Server_CA_-_G3.pem
[root@CUCM861 tomcat]# md5sum trust-certs/CUCM9X.pem a0a2e12a42e4bbbf10655c9b299839d9 trust-certs/CUCM9X.pem
```

您能看到新证书在托拉斯CERT目录存储。等于对CUCM节点主机名)的公用名称(使用了作为文件名。它保存作为.pem和.der。

符号链接**25ffab9b.0 -> CUCM9X.pem**也创建，并且证书被添加了到Tomcattrust.keystore。最后，您比较md5 cert文件的校验和在子节点的证明，这是同一证书。

**b.请采取仔细观察在如何发生证书保存到文件系统。从CM日志(在片断的注释，粗体的，从##开始)：**

```
2014-08-04 15:21:21,116 INFO [main] - log4j configuration successful.
2014-08-04 15:21:21,239 INFO [main] - IN -- CertMgr.java - mainInternal(args) -
2014-08-04 15:21:21,241 INFO [main] - decode

## import is the operation that will be performed 2014-08-04 15:21:21,241 INFO [main] -
op:import 2014-08-04 15:21:21,241 INFO [main] - type:trust-certs 2014-08-04 15:21:21,241 INFO
[main] - unit:tomcat-trust 2014-08-04 15:21:21,241 INFO [main] - src-
cert:%2Fusr%2Flocal%2Fplatform%2Fupload%2Fcerts%2Ftomcat.pem 2014-08-04 15:21:21,241 INFO [main]
- cert-dir:%2Fusr%2Flocal%2Fplatform%2F.security%2Ftomcat%2Ftrust-certs 2014-08-04 15:21:21,241
INFO [main] - key-dir:%2Fusr%2Flocal%2Fplatform%2F.security%2Ftomcat%2Fkeys 2014-08-04
15:21:21,241 INFO [main] - rootCA-cert:Dummy+Root+cert 2014-08-04 15:21:21,241 INFO [main] -
trust-dir:%2Fusr%2Flocal%2Fplatform%2F.security%2Ftomcat%2Ftrust-certs 2014-08-04 15:21:21,241
INFO [main] - logfile:%2Fvar%2Flog%2Factive%2Fplatform%2Flog%2Fcert-mgmt.log 2014-08-04
15:21:21,241 INFO [main] - resultfile:%2Fvar%2Flog%2Factive%2Fplatform%2Flog%2Fcertde-info.xml
2014-08-04 15:21:21,241 INFO [main] - description:Signed+Certificate 2014-08-04 15:21:21,294
INFO [main] - Parsed information 2014-08-04 15:21:21,294 INFO [main] - OrgName: CISCO 2014-08-04
15:21:21,294 INFO [main] - OrgUnit: TAC 2014-08-04 15:21:21,294 INFO [main] - Location: KRAKOW
2014-08-04 15:21:21,294 INFO [main] - Country: PL 2014-08-04 15:21:21,294 INFO [main] - State:
MALOPOLSKA 2014-08-04 15:21:21,294 INFO [main] - Hostname: CUCM861 2014-08-04 15:21:21,294 INFO
[main] - AlternateHostname: null 2014-08-04 15:21:21,294 INFO [main] - Domain Name: 2014-08-04
15:21:21,294 INFO [main] - IPAddress: 10.48.46.29 2014-08-04 15:21:21,296 INFO [main] - In
parseXML() 2014-08-04 15:21:21,359 INFO [main] - FQDN Name retrived by InetAddress : CUCM861
2014-08-04 15:21:21,360 INFO [main] - CN: CUCM861 2014-08-04 15:21:21,360 INFO [main] - Temp
before mod is 2014-08-04 15:21:21,361 INFO [main] - Temp afer mod is TAC 2014-08-04 15:21:21,361
INFO [main] - Temp in else is TAC 2014-08-04 15:21:21,361 INFO [main] - Temp before mod is 2014-
08-04 15:21:21,361 INFO [main] - Temp afer mod is TAC 2014-08-04 15:21:21,361 INFO [main] - Temp
in else is TAC 2014-08-04 15:21:21,361 INFO [main] - OuFields are TAC 2014-08-04 15:21:21,361
DEBUG [main] - Field after encoding: TAC 2014-08-04 15:21:21,361 DEBUG [main] - Field after
encoding: CISCO 2014-08-04 15:21:21,362 DEBUG [main] - Field after encoding: KRAKOW 2014-08-04
15:21:21,362 DEBUG [main] - Field after encoding: MALOPOLSKA 2014-08-04 15:21:21,362 DEBUG
[main] - Field after encoding: PL 2014-08-04 15:21:21,366 INFO [main] - OU field is :TAC 2014-
08-04 15:21:21,366 INFO [main] - SubjectDN ::
CN=CUCM861,OU=TAC,O=CISCO,L=KRAKOW,ST=MALOPOLSKA,C=PL 2014-08-04 15:21:21,366 INFO [main] - IN -
- CertMgr.java - getCertMgrObj(unit) - tomcat-trust 2014-08-04 15:21:21,386 INFO [main] - OUT --
CertMgr.java - getCertMgrObj - com.cisco.cpi.certMgmt.manager.TomcatCertMgr@162dbb6 2014-08-04
15:21:21,386 INFO [main] - Dummy loadProperties 2014-08-04 15:21:21,386 INFO [main] - IN --
CertMgr.java - doOp(info) - 2014-08-04 15:21:21,387 INFO [main] - IN -- DefaultCertMgr.java -
importCert(info) - decode: true op: import unit: tomcat-trust keystoreUnit:tomcat-trust logFile:
/var/log/active/platform/log/cert-mgmt.log resultFile:/var/log/active/platform/log/certde-
info.xml keyDir: /usr/local/platform/.security/tomcat/keys certDir:
```

```
/usr/local/platform/.security/tomcat/trust-certs srcCert:
/usr/local/platform/upload/certs/tomcat.pem type: trust-certs rootCACert: Dummy Root cert
trustDir: /usr/local/platform/.security/tomcat/trust-certs DNAME:
CN=CUCM861,OU=TAC,O=CISCO,L=KRAKOW,ST=MALOPOLSKA,C=PL description:Signed Certificate
isDBInsert:true 2014-08-04 15:21:21,387 INFO [main] - IN -- DefaultCertMgr.java -
loadInputCert(info) - 2014-08-04 15:21:22,246 DEBUG [main] - Loading RSA providers explicitly...
2014-08-04 15:21:25,159 DEBUG [main] - RSA providers are loaded explicitly... 2014-08-04
15:21:25,159 DEBUG [main] - New security.provider.1=JsafeJCE 2014-08-04 15:21:25,159 DEBUG
[main] - New security.provider.2=RsaJsse 2014-08-04 15:21:25,159 DEBUG [main] - New
security.provider.3=BC 2014-08-04 15:21:25,159 DEBUG [main] - New security.provider.4=SUN 2014-
08-04 15:21:25,159 DEBUG [main] - New security.provider.5=SunRsaSign 2014-08-04 15:21:25,159
DEBUG [main] - New security.provider.6=SunJSSE 2014-08-04 15:21:25,159 DEBUG [main] - New
security.provider.7=SunJCE 2014-08-04 15:21:25,159 DEBUG [main] - New
security.provider.8=SunJGSS 2014-08-04 15:21:25,160 DEBUG [main] - New
security.provider.9=SunSASL 2014-08-04 15:21:25,160 DEBUG [main] - New
security.provider.10=XMLDSig 2014-08-04 15:21:25,160 DEBUG [main] - New
security.provider.11=SunPCSC 2014-08-04 15:21:25,160 INFO [main] - IN -- RSACryptoEngine.java -
loadCertificates(..) - 2014-08-04 15:21:25,160 INFO [main] - IN -- RSACryptoEngine.java -
loadCertificate(..) - 2014-08-04 15:21:25,772 INFO [main] - OUT -- RSACryptoEngine.java -
loadCertificate - 2014-08-04 15:21:25,772 INFO [main] - OUT -- RSACryptoEngine.java -
loadCertificates - 2014-08-04 15:21:25,772 INFO [main] - OUT -- DefaultCertMgr.java -
loadInputCert - Successfully loaded input cert 2014-08-04 15:21:25,772 DEBUG [main] - Checking
validity of cert 2014-08-04 15:21:25,772 INFO [main] - Verifying certificate
L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL 2014-08-04 15:21:25,772 INFO [main]
- IN -- CertUtil.java - parseCNfromDN(DN, sSearchStr) - 2014-08-04 15:21:25,773 DEBUG [main] -
parseCNfromDN( certSubjDN: 'L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL') 2014-
08-04 15:21:25,773 DEBUG [main] - Truncating CN 'CUCM9X,OU=TAC,O=Cisco Systems,C=PL' -> 'CUCM9X'
2014-08-04 15:21:25,773 INFO [main] - OUT -- CertUtil.java - parseCNfromDN - 2014-08-04
15:21:25,773 DEBUG [main] - Parsed CN 'CUCM9X' from DN
'L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL' 2014-08-04 15:21:25,773 INFO
[main] - trying to load cert from trust store ::/usr/local/platform/.security/tomcat/trust-
certs/CUCM9X.pem 2014-08-04 15:21:25,773 INFO [main] - cert not available in trust store
::L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL 2014-08-04 15:21:25,773 INFO
[main] - IN -- DefaultCertMgr.java - importTrustCert(info, cert) - 2014-08-04 15:21:25,773 INFO
[main] - IN -- DefaultCertMgr.java - saveToTrustStore(info, cert) - 2014-08-04 15:21:25,773 INFO
[main] - IN -- DefaultCertMgr.java - saveTrustCert(cert, targetDir, certType) - 2014-08-04
15:21:25,773 INFO [main] - IN -- CertUtil.java - parseCNfromDN(DN, sSearchStr) - 2014-08-04
15:21:25,773 DEBUG [main] - parseCNfromDN( certSubjDN:
'L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL') 2014-08-04 15:21:25,773 DEBUG
[main] - Truncating CN 'CUCM9X,OU=TAC,O=Cisco Systems,C=PL' -> 'CUCM9X' 2014-08-04 15:21:25,773
INFO [main] - OUT -- CertUtil.java - parseCNfromDN - 2014-08-04 15:21:25,773 DEBUG [main] -
Parsed CN 'CUCM9X' from DN 'L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL' 2014-
08-04 15:21:25,773 INFO [main] - IN -- CertUtil.java - parseCNfromDN(DN, sSearchStr) - 2014-08-
04 15:21:25,773 DEBUG [main] - parseCNfromDN( certSubjDN:
'L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL') 2014-08-04 15:21:25,774 DEBUG
[main] - Truncating CN 'CUCM9X,OU=TAC,O=Cisco Systems,C=PL' -> 'CUCM9X' 2014-08-04 15:21:25,774
INFO [main] - OUT -- CertUtil.java - parseCNfromDN - 2014-08-04 15:21:25,774 DEBUG [main] -
Parsed CN 'CUCM9X' from DN 'L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL' ##
cert will be stored in filesystem with below filename (which is CN retrieved from certificate)
2014-08-04 15:21:25,774 DEBUG [main] - target filename for imported cert: 'CUCM9X.pem' 2014-08-
04 15:21:25,774 DEBUG [main] - existing certificate with same filename not found. 2014-08-04
15:21:25,774 DEBUG [main] - Saving PEM encoded cert '/usr/local/platform/.security/tomcat/trust-
certs/CUCM9X.pem' 2014-08-04 15:21:25,776 INFO [main] - IN -- CryptoUtil.java - saveAsPEM(..) -
File : /usr/local/platform/.security/tomcat/trust-certs/CUCM9X.pem 2014-08-04 15:21:25,796 INFO
[main] - OUT -- CryptoUtil.java - saveAsPEM - 2014-08-04 15:21:25,796 DEBUG [main] - Saving DER
encoded cert '/usr/local/platform/.security/tomcat/trust-certs/CUCM9X.der' 2014-08-04
15:21:25,797 INFO [main] - OUT -- DefaultCertMgr.java - saveTrustCert - ## saving it to key
store 2014-08-04 15:21:25,797 INFO [main] - IN -- TomcatCertMgr.java - saveToKeyStore(..) -
2014-08-04 15:21:25,797 INFO [main] - IN -- RSACryptoEngine.java - saveToKeyStore(keystoreFile,
keystorePass, x509Certificate, alias) - 2014-08-04 15:21:25,797 INFO [main] - IN --
RSACryptoEngine.java - loadKeyStore(keystoreFile, keystorePass) - 2014-08-04 15:21:25,981 INFO
[main] - OUT -- RSACryptoEngine.java - loadKeyStore - 2014-08-04 15:21:25,981 INFO [main] - Size
of the keystore before import is : 3 2014-08-04 15:21:25,982 INFO [main] - Importing certificate
: CUCM9X 2014-08-04 15:21:26,023 INFO [main] - Size of the keystore after import is : 4 2014-08-
```



```
04 15:21:26,023 INFO [main] - OUT -- RSACryptoEngine.java - saveToKeyStore - 2014-08-04
15:21:26,023 INFO [main] - OUT -- TomcatCertMgr.java - saveToKeyStore - 2014-08-04 15:21:26,023
DEBUG [main] - TrustCert description filename : 'CUCM9X.description' 2014-08-04 15:21:26,024
INFO [main] - IN -- DefaultCertMgr.java - createDescriptionFile(name, description) - 2014-08-04
15:21:26,024 INFO [main] - description is :Signed Certificate 2014-08-04 15:21:26,024 INFO
[main] - OUT -- DefaultCertMgr.java - createDescriptionFile - 2014-08-04 15:21:26,024 INFO
[main] - IN -- DefaultCertMgr.java - setOwnershipAndPermissions(file) - 2014-08-04 15:21:26,024
DEBUG [main] - setOwnershipAndPermissions : CUCM9X.description 2014-08-04 15:21:26,025 DEBUG
[main] - Changing ownership of file '/usr/local/platform/.security/tomcat/trust-
certs/CUCM9X.description' 2014-08-04 15:21:26,025 INFO [main] - IN -- Util.java - sysExec(exe,
args) - 2014-08-04 15:21:26,025 DEBUG [main] - Executing command from Util.sysExec : /bin/chown
certbase /usr/local/platform/.security/tomcat/trust-certs/CUCM9X.description 2014-08-04
15:21:26,049 INFO [main] - OUT -- Util.java - sysExec - 2014-08-04 15:21:26,049 DEBUG [main] -
Changing group ownership of file '/usr/local/platform/.security/tomcat/trust-
certs/CUCM9X.description' 2014-08-04 15:21:26,049 INFO [main] - IN -- Util.java - sysExec(exe,
args) - 2014-08-04 15:21:26,049 DEBUG [main] - Executing command from Util.sysExec : /bin/chgrp
ccmbase /usr/local/platform/.security/tomcat/trust-certs/CUCM9X.description 2014-08-04
15:21:26,064 INFO [main] - OUT -- Util.java - sysExec - 2014-08-04 15:21:26,065 DEBUG [main] -
Changing mode of file '/usr/local/platform/.security/tomcat/trust-certs/CUCM9X.description'
2014-08-04 15:21:26,065 INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-04
15:21:26,065 DEBUG [main] - Executing command from Util.sysExec : /bin/chmod 755
/usr/local/platform/.security/tomcat/trust-certs/CUCM9X.description 2014-08-04 15:21:26,068 INFO
[main] - OUT -- Util.java - sysExec - 2014-08-04 15:21:26,068 INFO [main] - OUT --
DefaultCertMgr.java - setOwnershipAndPermissions - 2014-08-04 15:21:26,068 INFO [main] - OUT --
DefaultCertMgr.java - saveToTrustStore - ## certificate will be stored in trust-certs directory
2014-08-04 15:21:26,069 INFO [main] - trustdir ::/usr/local/platform/.security/tomcat/trust-
certs 2014-08-04 15:21:26,069 INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-04
15:21:26,069 DEBUG [main] - Executing command from Util.sysExec : python
/usr/local/platform/bin/c_rehash.py /usr/local/platform/.security/tomcat/trust-certs 2014-08-04
15:21:26,449 INFO [main] - OUT -- Util.java - sysExec - ## setting necessary permissions 2014-
08-04 15:21:26,449 INFO [main] - IN -- DefaultCertMgr.java - setOwnershipAndPermissions(file) -
2014-08-04 15:21:26,449 DEBUG [main] - setOwnershipAndPermissions : trust-certs 2014-08-04
15:21:26,449 DEBUG [main] - Changing ownership of file
'/usr/local/platform/.security/tomcat/trust-certs' 2014-08-04 15:21:26,449 INFO [main] - IN --
Util.java - sysExec(exe, args) - 2014-08-04 15:21:26,449 DEBUG [main] - Executing command from
Util.sysExec : /bin/chown -R certbase /usr/local/platform/.security/tomcat/trust-certs 2014-08-
04 15:21:26,460 INFO [main] - OUT -- Util.java - sysExec - 2014-08-04 15:21:26,460 DEBUG [main]
- Changing group ownership of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-04
15:21:26,460 INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-04 15:21:26,460 DEBUG
[main] - Executing command from Util.sysExec : /bin/chgrp -R ccmbase
/usr/local/platform/.security/tomcat/trust-certs 2014-08-04 15:21:26,471 INFO [main] - OUT --
Util.java - sysExec - 2014-08-04 15:21:26,472 DEBUG [main] - Changing mode of file
'/usr/local/platform/.security/tomcat/trust-certs' 2014-08-04 15:21:26,472 INFO [main] - IN --
Util.java - sysExec(exe, args) - 2014-08-04 15:21:26,472 DEBUG [main] - Executing command from
Util.sysExec : /bin/chmod -R 755 /usr/local/platform/.security/tomcat/trust-certs 2014-08-04
15:21:26,478 INFO [main] - OUT -- Util.java - sysExec - 2014-08-04 15:21:26,478 INFO [main] -
OUT -- DefaultCertMgr.java - setOwnershipAndPermissions - 2014-08-04 15:21:26,478 INFO [main] -
IN -- CertUtil.java - populateCertInfo(cert, opInfo, certFilePemLocation) - 2014-08-04
15:21:26,480 INFO [main] - IN -- CertUtil.java - getHostName(..) - 2014-08-04 15:21:26,480 INFO
[main] - OUT -- CertUtil.java - getHostName - CUCM861 2014-08-04 15:21:26,480 INFO [main] - IN -
- CryptoUtil.java - saveAsPEM(..) - 2014-08-04 15:21:26,482 INFO [main] - OUT -- CryptoUtil.java
- saveAsPEM - 2014-08-04 15:21:26,483 INFO [main] - OUT -- CertUtil.java - populateCertInfo -
c.证书在文件系统存储，它当前需要插入到DB。此操作由CM API也执行。
```

```
2014-08-04 15:21:26,484 INFO [main] - IN -- CertDBAction.java -
insertCertificateInDB(certFiletoStore, info) -
2014-08-04 15:21:26,485 INFO [main] -
```

```
## certificate has been identified as tomcat-trust one DBParameters ... PKID : null CN :
L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL serialNo :
7a40f8743a793b44fe802b5f3ele6f36 hostName : CUCM861 issuerName :
```

L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL Certificate : Not Printing huge Certificate String.. IPV4Address : 10.48.46.29 IPV6Address : TimeToLive : NULL UNIT : tomcat-trust TYPE : trust-certs ROLE : null RoleMoniker : null RoleEnum :null SERVICE : null ServiceMoniker : null ServiceEnum :0 2014-08-04 15:21:26,485 INFO [main] - DB - Certifciate Store Plugin Handler is :com.cisco.ccm.certmgmt.db.CertDBImpl 2014-08-04 15:21:26,697 DEBUG [main] - Connection Initialized to localnode. Connection HashCode:896033 --Details:Connector(NOT CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:26,697 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[true]\_target[0]connectToPubByDefault[false] 2014-08-04 15:21:26,712 DEBUG [main] - Try to get a connection from pool 2014-08-04 15:21:26,712 DEBUG [main] - getting local connection from Pool 2014-08-04 15:21:26,714 DEBUG [main] - Getting connection from connection pool entry <database,jdbcurl2> 2014-08-04 15:21:26,715 DEBUG [main] - There are currently 0 connection pool entries 2014-08-04 15:21:26,719 DEBUG [main] - Checking if connection limit has been reached for database 2014-08-04 15:21:26,720 DEBUG [main] - Connecting to publisher so max number of connections allowed is 100 2014-08-04 15:21:26,720 DEBUG [main] - Number of connections in use is 0 2014-08-04 15:21:26,720 DEBUG [main] - There is currently 1 connection pool entry 2014-08-04 15:21:26,720 DEBUG [main] - Number of available connections in pool: 0 2014-08-04 15:21:27,411 DEBUG [main] - Adding connection <com.informix.jdbc.IfxSqlConnect@135da43> to connection list 2014-08-04 15:21:27,411 DEBUG [main] - Marking connection <com.informix.jdbc.IfxSqlConnect@135da43> as used 2014-08-04 15:21:27,411 DEBUG [main] - Got connection from pool 2014-08-04 15:21:27,418 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[true]\_target[0]connectToPubByDefault[false] 2014-08-04 15:21:27,422 DEBUG [main] - Closing the resultset. 2014-08-04 15:21:27,423 DEBUG [main] - Closing the connection. Connection HashCode:896033 --Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:27,423 DEBUG [main] - Attempting to close connection 2014-08-04 15:21:27,423 DEBUG [main] - Removing connection <database, jdbcurl2> from ConnectionManager list 2014-08-04 15:21:27,423 DEBUG [main] - removeConnectionFromConnectionList() 2014-08-04 15:21:27,447 DEBUG [main] - Removing connection <com.informix.jdbc.IfxSqlConnect@135da43> from connection list 2014-08-04 15:21:27,452 DEBUG [main] - Connection <com.informix.jdbc.IfxSqlConnect@135da43> is not closed, adding it back to the pool entry <database,jdbcurl2> 2014-08-04 15:21:27,453 INFO [main] - Connection/Statement/Resultset is closed properly. **## service is checking current enums for TYPETRUSTROLEMAP (for tomcat-trust it is ## ROLE\_APPLICATION\_SERVER=7) and TYPESERVICEROLEMAP (for tomcat-trust it will be ## tomcat-trust=6)** 2014-08-04 15:21:27,453 INFO [main] - TYPETRUSTROLEMAP ::{TRUST\_ROLE\_DATA\_SERVICE=24, TRUST\_ROLE\_PROVISIONING\_SERVICE=23, TRUST\_ROLE\_SERVICEABILITY=27, TRUST\_ROLES\_CALLMANAGER\_TFTP=2, PHONE\_TRUST\_ROLES\_FIREWALL=6, ROLE\_APPLICATION\_SERVER=7, TRUST\_ROLES\_SAST=0, ROLE\_SIGNALING\_CALL\_CONTROL=22, TRUST\_ROLES\_CALLMANAGER=1, TRUST\_ROLES\_UNKNOWN=255, TRUST\_ROLE\_NETWORK\_ELEMENT=25, TRUST\_ROLES\_SRST=5, ROLE\_CERTIFICATE\_AUTHORITY=20, TRUST\_ROLE\_VPN=26, TRUST\_ROLES\_CAPF=4, TRUST\_ROLES\_TFTP=3, ROLE\_AUTHENTICATION\_AUTHORIZATION=21} 2014-08-04 15:21:27,453 INFO [main] - TYPESERVICEROLEMAP ::{Phone-VPN-trust=2, CallManager=3, Phone-CTL-trust=15, tomcat-trust=6, TVS=11, ipsec-trust=8, Phone-trust=1, Phone-SAST-trust=14, tomcat=5, userlicensing-trust=16, CAPF=9, ipsec=7, CAPF-trust=10, CallManager-trust=4, TVS-trust=12, directory-trust=13} 2014-08-04 15:21:27,453 INFO [main] - unitRoleMap ::{Phone-VPN-trust=[TRUST\_ROLE\_VPN], CallManager=[TRUST\_ROLES\_CALLMANAGER\_TFTP, TRUST\_ROLES\_SAST], Phone-CTL-trust=[ROLE\_APPLICATION\_SERVER], tomcat-trust=[ROLE\_APPLICATION\_SERVER], TVS=[ROLE\_AUTHENTICATION\_AUTHORIZATION], ipsec-trust=[], Phone-trust=[ROLE\_APPLICATION\_SERVER], Phone-SAST-trust=[TRUST\_ROLES\_SAST, TRUST\_ROLES\_TFTP], tomcat=[ROLE\_APPLICATION\_SERVER], userlicensing-trust=[], CAPF=[TRUST\_ROLES\_CAPF], ipsec=[ROLE\_APPLICATION\_SERVER], CAPF-trust=[], CallManager-trust=[], TVS-trust=[], directory-trust=[]} 2014-08-04 15:21:27,453 INFO [main] - commonTrustStoreMap ::{} 2014-08-04 15:21:27,456 DEBUG [main] - Connection Initialized to Publisher. Connection HashCode:7962652 --Details:Connector(NOT CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:27,456 INFO [main] - IN -- CertDBImpl.java - insertCertificate(certInfo, con) - 2014-08-04 15:21:27,456 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[1]connectToPubByDefault[true] 2014-08-04 15:21:27,456 DEBUG [main] - Try to get a connection from pool 2014-08-04 15:21:27,456 DEBUG [main] - Getting connection from connection pool entry <database,jdbcurl2> 2014-08-04 15:21:27,456 DEBUG [main] - There is currently 1 connection pool entry 2014-08-04 15:21:27,456 DEBUG [main] - Adding connection <com.informix.jdbc.IfxSqlConnect@135da43> to connection list 2014-08-04 15:21:27,456 DEBUG [main] - Marking connection <com.informix.jdbc.IfxSqlConnect@135da43> as used 2014-08-04 15:21:27,457 DEBUG [main] - Got connection from pool 2014-08-04 15:21:27,459 INFO [main] - IN -- CertDBImpl.java - populateRoleEnumServiceEnum(certInfo) - 2014-08-04 15:21:27,459 INFO [main] - UNIT ::: tomcat-trust 2014-08-04 15:21:27,459 INFO [main] - role ::: [ROLE\_APPLICATION\_SERVER] 2014-08-04

15:21:27,459 INFO [main] - roleEnum ::: [7] 2014-08-04 15:21:27,459 INFO [main] - service ::: null 2014-08-04 15:21:27,459 INFO [main] - serviceEnum ::: 6 2014-08-04 15:21:27,459 INFO [main] - OUT -- CertDBImpl.java - populateRoleEnumServiceEnum - 2014-08-04 15:21:27,489 INFO [main] - IN -- CertDBUtil.java - getProcessNodeId(con, hostName, ipAddress, fqdn) - 2014-08-04 15:21:27,489 INFO [main] - getProcessNodeId Query :SELECT PKID,NAME FROM PROCESSNODE WHERE UPPER(NAME)=UPPER("CUCM861") OR UPPER(NAME)=UPPER("10.48.46.29") OR UPPER(NAME)=UPPER("CUCM861") 2014-08-04 15:21:27,489 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[1]connectToPubByDefault[true] 2014-08-04 15:21:27,497 INFO [main] - ProcessNodeId:13f4b0d9-0bae-429a-a86e-625336a35bb6 2014-08-04 15:21:27,498 DEBUG [main] - Closing the resultset. 2014-08-04 15:21:27,498 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-04 15:21:27,498 INFO [main] - OUT -- CertDBUtil.java - getProcessNodeId - 2014-08-04 15:21:27,498 INFO [main] - IN -- CertDBImpl.java - getPkidOfCertificate(hash, serverName, con) - 2014-08-04 15:21:27,498 DEBUG [main] - GetPKID Query :SELECT A.PKID FROM CERTIFICATE A, CERTIFICATEHASHMAP B WHERE A.PKID=B.FKCERTIFICATE AND B.HASH = "a9Ww/WeDmBnnHHncUCqOGCz409g=" 2014-08-04 15:21:27,498 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[1]connectToPubByDefault[true] 2014-08-04 15:21:27,522 DEBUG [main] - Closing the resultset. 2014-08-04 15:21:27,539 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-04 15:21:27,539 INFO [main] - OUT -- CertDBImpl.java - getPkidOfCertificate - 2014-08-04 15:21:27,539 DEBUG [main] - INSERT FLAG :: isCertUpdate=false :: doNothing=false **## you can see an insert query that is used to upload the certificate into the CERTIFICATE** **## table** 2014-08-04 15:21:27,543 DEBUG [main] - INSERT/UPDATE Query of CERTIFICATE : INSERT INTO CERTIFICATE VALUES ("4152b36b-002e-68ac-711d-c373fa940779", "CUCM861", "L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL", "L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL", "7a40f8743a793b44fe802b5f3e1e6f36", "-----BEGIN CERTIFICATE----- MIIDtTCCAp2gAwIBAgIQekD4dDp500T+gCtfPh5vNjANBgkqhkiG9w0BAQsFADBq MQswCQYDVQQGEWJQTEDEWMBQGA1UEChMNQ2l2Y28gU3lzdGVtczEMMAoGAlUECjMD VEFDMQ8wDQYDVQQDEwZDVUNNOVgxZzARBgNVBAGTCk1hbG9wb2xza2ExDzANBgNV BACTBktyYWtvdzAeFw0xNDA4MDQxMzE5MDdaFw0xOTA4MDMxMzE5MDZaMGoxCzAJ BgNVBAYTAlBMMRYwFAyDVQKKEw1DaXNjbyBTeXN0ZW1zMQwwCgYDVQQLLEwNUQUxM DzANBgNVBAMTBkNVQ005WDEtMBEgAlUECBMKTWFsb3BvbHNRyTEPMA0GA1UEBxMG S3Jha293MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAY0IoIzjyDpaC /gGMTwsJUaoyvAdxwRhAUvsro7lqr+rON+HQApZBFdT9qL0Uv+cAvCTKfXsl4QJ Il6vxcMWBqWf6S10IwAE9DyhY2ZkuRiLX0024eRnf30FePH9j15eVVUwL4CKaVS3 xa9yq6yaYa4o7PE6QypK9SDIKm2IHQ6j1HX26ZXLKlJmHhFK5cnFbo+7UUzdtie u3+XBQtnTqsS/bM7oVbcsyqYuaQddrT5Zrzo9QEjx4BuM62929jmEcgMI/OQ504s aS+dEjx9u+g9rmrNuvZ0pgtsHHU3IijePZCnKm5JE4oiC1qI2zUwTevckYk+MSZ0 XeXyN2WrkQIDAQABolcwVTALBgNVHQ8EBAMCARwwJwYDVR0lBCAwHgYIKwYBBQUH AwEGCCsGAQUFBwMCCBgrBgEFBQCcDBTAdBgNVHQ4EFgQUt6dlJJ8fTevcRHxEQKG9 fYV3SPswDQYJKoZIhvcNAQELBQADggEBALAJn5CQWQhMA+Eg9C6QUyLqKNN7Lshy loSSE7Nn5RsIB4PQ9cD8Wv17bzRyp70yFoQ1B+Z8U4FgSCWkbGAGaAubMyb/6rXLW uUyCrXhy48XrMDVJ3CqMHXhR5tjY9Sn1ziXdJe4AwwBRAzId4QrIdNuE6pUSLrrh 915dRyvrXpIXgeQJ2pGU+qol2CSaySSPTEfhNDh8U2yJw/tg8H1Amnv0VW+TY+9U B6TC04iElmwuOr9tJ6+LyZI7emRmNkv50n5PzcK4RQz5NOefVXdSHLpwAuW+Q8Eb mt7BbxzyZl5KbaSdAMvkYRbnuwDJyZWMJPOWftVcmRlRpk2/yDb959o= -----END CERTIFICATE----- ", "10.48.46.29", "", NULL) 2014-08-04 15:21:27,543 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[1]connectToPubByDefault[true] 2014-08-04 15:21:27,766 INFO [main] - IN -- CertDBImpl.java - updateCertificateHashMap(certInfo, con) - **## hash for this certificate is being updated in teh CERTIFICATEHASHMAP** 2014-08-04 15:21:27,766 DEBUG [main] - Update query of CERTIFICATEHASHMAP :UPDATE CERTIFICATEHASHMAP SET HASH = "a9Ww/WeDmBnnHHncUCqOGCz409g=" WHERE FKCERTIFICATE = "4152b36b-002e-68ac-711d-c373fa940779" 2014-08-04 15:21:27,766 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[0]connectToPubByDefault[true] 2014-08-04 15:21:27,771 INFO [main] - OUT -- CertDBImpl.java - updateCertificateHashMap - **## cert is in the DB, but there is still no info about the type of this certificate.** **## Corresponding tables: CERTIFICATESERVICECERTIFICATEMAP, CERTIFICATESTRUSTROLEMAP and CERTIFICATEPROCESSNODEMAP need to be updated with correct info. For each one CM will check if you have any entries in the DB with the PKID of certificate you just added. If no, proper entry is inserted** 2014-08-04 15:21:27,771 INFO [main] - IN -- CertDBImpl.java - insertCertSrvCertMap(certInfo, con) - 2014-08-04 15:21:27,771 INFO [main] - IN -- CertDBImpl.java - checkExistingCertificateServiceMapping(certInfo, serviceEnum, con) - **## checked here** 2014-08-04 15:21:27,771 DEBUG [main] - checkExistingTrustCertificateForService Query :SELECT PKID,FKCERTIFICATE, TKCERTIFICATESERVICE FROM CERTIFICATESERVICECERTIFICATEMAP

WHERE FKCERTIFICATE = "4152b36b-002e-68ac-711d-c373fa940779" AND TKCERTIFICATESERVICE= "6" 2014-08-04 15:21:27,771 DEBUG [main] - getConn:  
usePooling[true]connectToLocalDB[false]\_target[0]connectToPubByDefault[true] 2014-08-04 15:21:27,774 DEBUG [main] - Closing the resultset. 2014-08-04 15:21:27,774 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-04 15:21:27,774 INFO [main] - OUT -- CertDBImpl.java - checkExistingCertificateServiceMapping - **## inserted here** 2014-08-04 15:21:27,774 DEBUG [main] - Certificate to be inserted in CERTIFICATESERVICECERTIFICATEMAP table :tomcat-trust ::PKID :4152b36b-002e-68ac-711d-c373fa940779 ::toInsertInCertSrvMap:true 2014-08-04 15:21:27,774 DEBUG [main] - Insert query of CERTIFICATESERVICECERTIFICATEMAP :INSERT INTO CERTIFICATESERVICECERTIFICATEMAP VALUES (newid(),"4152b36b-002e-68ac-711d-c373fa940779",6) 2014-08-04 15:21:27,775 DEBUG [main] - getConn:  
usePooling[true]connectToLocalDB[false]\_target[0]connectToPubByDefault[true] 2014-08-04 15:21:27,778 DEBUG [main] - CertService mapping entry already exists.. 2014-08-04 15:21:27,778 INFO [main] - OUT -- CertDBImpl.java - insertCertSrvCertMap - 2014-08-04 15:21:27,778 INFO [main] - IN -- CertDBImpl.java - insertCertTrustRoleMap(certInfo, log, con) - 2014-08-04 15:21:27,779 INFO [main] - IN -- CertDBImpl.java - checkExistingCertificateRoleMapping(certInfo, roleEnum, con) - **## checked here** 2014-08-04 15:21:27,779 DEBUG [main] - checkExistingTrustCertificateForRole Query :SELECT PKID,FKCERTIFICATE, TKTRUSTROLE FROM CERTIFICATETRUSTROLEMAP WHERE FKCERTIFICATE = "4152b36b-002e-68ac-711d-c373fa940779" AND TKTRUSTROLE= "7" 2014-08-04 15:21:27,779 DEBUG [main] - getConn:  
usePooling[true]connectToLocalDB[false]\_target[0]connectToPubByDefault[true] 2014-08-04 15:21:27,781 DEBUG [main] - Closing the resultset. 2014-08-04 15:21:27,781 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-04 15:21:27,781 INFO [main] - OUT -- CertDBImpl.java - checkExistingCertificateRoleMapping - **## inserted here** 2014-08-04 15:21:27,781 DEBUG [main] - Certificate to be inserted in CERTIFICATETRUSTROLEMAP table :tomcat-trust ::PKID :4152b36b-002e-68ac-711d-c373fa940779 ::toInsertInCertSrvMap:true 2014-08-04 15:21:27,781 DEBUG [main] - Insert query of CERTIFICATETRUSTROLEMAP :INSERT INTO CERTIFICATETRUSTROLEMAP VALUES (newid(),"4152b36b-002e-68ac-711d-c373fa940779",7) 2014-08-04 15:21:27,782 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[0]connectToPubByDefault[true] 2014-08-04 15:21:27,868 INFO [main] - OUT -- CertDBImpl.java - insertCertTrustRoleMap - 2014-08-04 15:21:27,868 INFO [main] - IN -- CertDBImpl.java - insertCertProcessNodeMap(certInfo, con) - 2014-08-04 15:21:27,868 INFO [main] - IN -- CertDBImpl.java - checkExistingCertProcessNodeMapping(certInfo, con) - **## finally checked here** 2014-08-04 15:21:27,868 DEBUG [main] - checkExistingCertProcessNodeMapping Query :SELECT PKID,FKCERTIFICATE, FKPROCESSNODE,SERVERNAME FROM CERTIFICATEPROCESSNODEMAP WHERE FKCERTIFICATE="4152b36b-002e-68ac-711d-c373fa940779" AND FKPROCESSNODE="13f4b0d9-0bae-429a-a86e-625336a35bb6" AND SERVERNAME="CUCM861" 2014-08-04 15:21:27,869 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[0]connectToPubByDefault[true] 2014-08-04 15:21:27,872 DEBUG [main] - Closing the resultset. 2014-08-04 15:21:27,872 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-04 15:21:27,872 INFO [main] - OUT -- CertDBImpl.java - checkExistingCertProcessNodeMapping - **## and inserted here** 2014-08-04 15:21:27,872 DEBUG [main] - Insert query of CERTIFICATEPROCESSNODEMAP :INSERT INTO CERTIFICATEPROCESSNODEMAP VALUES (newid(),"4152b36b-002e-68ac-711d-c373fa940779", "13f4b0d9-0bae-429a-a86e-625336a35bb6" , "CUCM861", "10.48.46.29" , "") 2014-08-04 15:21:27,872 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[0]connectToPubByDefault[true] 2014-08-04 15:21:27,879 INFO [main] - OUT -- CertDBImpl.java - insertCertProcessNodeMap - 2014-08-04 15:21:27,930 DEBUG [main] - Connection committed for insertCertificate.. 2014-08-04 15:21:27,930 DEBUG [main] - Insertion of Certificate in DB is Successful. 2014-08-04 15:21:27,930 INFO [main] - OUT -- CertDBImpl.java - insertCertificate - 2014-08-04 15:21:27,930 DEBUG [main] - Closing the connection. Connection HashCode:7962652 --  
Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:27,930 DEBUG [main] - Attempting to close connection 2014-08-04 15:21:27,930 DEBUG [main] - Removing connection <database, jdbcurl2> from ConnectionManager list 2014-08-04 15:21:27,930 DEBUG [main] - removeConnectionFromConnectionList() 2014-08-04 15:21:27,930 DEBUG [main] - Removing connection <com.informix.jdbc.IfxSqlConnect@135da43> from connection list 2014-08-04 15:21:27,931 DEBUG [main] - Connection <com.informix.jdbc.IfxSqlConnect@135da43> is not closed, adding it back to the pool entry <database,jdbcurl2> 2014-08-04 15:21:27,931 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-04 15:21:27,931 INFO [main] - DB - Generate Certificate operation in DB is successful 2014-08-04 15:21:27,931 INFO [main] - OUT -- CertDBAction.java - insertCertificateInDB - 2014-08-04 15:21:27,931 INFO [main] - IN -- CryptoUtil.java - isOCSPEnabled(..) - 2014-08-04 15:21:27,931 INFO [main] - IN -- CryptoUtil.java - getCertMonitorXmlParser(..) - 2014-08-04 15:21:27,989 INFO [main] - OUT -- CryptoUtil.java - getCertMonitorXmlParser - 2014-08-04 15:21:27,989 INFO [main] - OUT -- CryptoUtil.java - isOCSPEnabled - false 2014-08-04 15:21:27,990 DEBUG [main] - OCSP is not

enabled. **## process of importing the cert to this node is finishing here.** 2014-08-04  
15:21:27,990 INFO [main] - Successfully imported trusted certificate with Subject  
DN:L#61;Krakow,ST#61;Malopolska,CN#61;CUCM9X,OU#61;TAC,O#61;Cisco Systems,C#61;PL 2014-08-  
04 15:21:27,990 INFO [main] - OUT -- DefaultCertMgr.java - importTrustCert - Successfully  
imported trusted certificate with Subject  
DN:L#61;Krakow,ST#61;Malopolska,CN#61;CUCM9X,OU#61;TAC,O#61;Cisco Systems,C#61;PL 2014-08-  
04 15:21:27,990 INFO [main] - result of import operations is ::Import of trust certificate is  
successful 2014-08-04 15:21:27,990 INFO [main] - OUT -- DefaultCertMgr.java - importCert - 2014-  
08-04 15:21:27,990 INFO [main] - IN -- CertMgr.java - logResult(result, desc, resultFile) -  
2014-08-04 15:21:27,990 INFO [main] - CertMgmt Operation Result : null 2014-08-04 15:21:27,991  
INFO [main] - OUT -- CertMgr.java - logResult - 2014-08-04 15:21:27,991 INFO [main] - OUT --  
CertMgr.java - doOp - 2014-08-04 15:21:27,992 INFO [main] - OUT -- CertMgr.java - mainIntenal -  
**D. 在certs复制后，在两节点的CertCN服务通知关于做的变化在DB上。这在日志能被看到。下面显示  
登录发行商**

**## notification about the change comes, service is notified about change in CERTIFICATE and  
CERTIFICATESSERVICECERTIFICATEMAP tables** 2014-08-04 15:21:28,003 INFO [Thread-5] - IN - process.  
changeData &colon; 2014-08-04 15:21:28,016 INFO [Thread-5] - Inside CERTIFICATE - I/U option..  
2014-08-04 15:21:28,016 DEBUG [Thread-5] - Updated Data in CERTIFICATE  
::<msg><type>DBL</type><table>certificate</table><tableid>41</tableid><action>I</action><time>14  
07158487</time><new><cdrserver>2</cdrserver><cdrtime>1407158486</cdrtime><pkid>4152b36b-002e-  
68ac-711d-  
c373fa940779</pkid><servername>CUCM861</servername><subjectname>L=Krakow,ST=Malopolska,CN=CUCM9X  
,OU=TAC,O=Cisco  
Systems,C=PL</subjectname><issuename>L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco  
Systems,C=PL</issuename><serialnumber>7a40f8743a793b44fe802b5f3e1e6f36</serialnumber><certifica  
te></certificate><ipv4address>10.48.46.29</ipv4address><ipv6address></ipv6address><timetolive>NU  
LL</timetolive><ifx\_replcheck>6043699677659004930</ifx\_replcheck></new></msg> 2014-08-04  
15:21:28,016 DEBUG [Thread-5] - Certificate PKID : 4152b36b-002e-68ac-711d-c373fa940779 ,  
ipAddress : 10.48.46.29 , OldSerialNo : , NewSerialNo : 7a40f8743a793b44fe802b5f3e1e6f36 2014-  
08-04 15:21:28,017 INFO [Thread-5] - OUT - process. 2014-08-04 15:21:28,018 INFO [Thread-5] - IN  
- process. changeData &colon; 2014-08-04 15:21:28,018 INFO [Thread-5] - Inside  
CERTIFICATESSERVICECERTIFICATEMAP - I option.. 2014-08-04 15:21:28,019 DEBUG [Thread-5] - Updated  
Data in CERTIFICATESSERVICECERTIFICATEMAP  
::<msg><type>DBL</type><table>certificateservicecertificatemap</table><tableid>44</tableid><acti  
on>I</action><time>1407158487</time><new><cdrserver>2</cdrserver><cdrtime>1407158487</cdrtime><pk  
kid>798ff6e1-eld6-42e5-a4e6-30d9d7360d6d</pkid><fkcertificate>4152b36b-002e-68ac-711d-  
c373fa940779</fkcertificate><tkcertificateservice>6</tkcertificateservice><ifx\_replcheck>6043699  
681953972226</ifx\_replcheck></new></msg> 2014-08-04 15:21:28,019 INFO [InsertThread --- 8] - IN  
-- CertKeystoreHandler.java - run() - 2014-08-04 15:21:28,021 DEBUG [InsertThread --- 8] -  
InsertThread --- 8 -- START -- **## change is related to the PKID that has been assigned for the  
new certificate** 2014-08-04 15:21:28,021 DEBUG [InsertThread --- 8] - DB Value UPDATE: 4152b36b-  
002e-68ac-711d-c373fa940779 2014-08-04 15:21:28,021 INFO [InsertThread --- 8] - IN --  
CertKeystoreHandler.java - updateIntoKeystore() - 2014-08-04 15:21:28,021 INFO [InsertThread ---  
8] - IN -- CertDBImpl.java - getCertificate(certBash64SHA1:null --pkid:4152b36b-002e-68ac-711d-  
c373fa940779 2014-08-04 15:21:28,022 DEBUG [InsertThread --- 8] - Connection Initialized to  
localnode. Connection HashCode:14186201 --Details:Connector(NOT CONNECTED:  
Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:28,022 DEBUG [InsertThread --- 8] - Select  
Query to getCertificate :SELECT A.\*,B.HASH FROM CERTIFICATE A, CERTIFICATEHASHMAP B WHERE  
A.PKID=B.FKCERTIFICATE AND A.PKID = "4152b36b-002e-68ac-711d-c373fa940779" 2014-08-04  
15:21:28,022 DEBUG [InsertThread --- 8] - getConn:  
usePooling[true]connectToLocalDB[true]\_target[0]connectToPubByDefault[false] 2014-08-04  
15:21:28,022 DEBUG [InsertThread --- 8] - Try to get a connection from pool 2014-08-04  
15:21:28,022 DEBUG [InsertThread --- 8] - getting local connection from Pool 2014-08-04  
15:21:28,022 DEBUG [InsertThread --- 8] - Getting connection from connection pool entry  
<database,jdbcurl2> 2014-08-04 15:21:28,022 DEBUG [InsertThread --- 8] - There are currently 2  
connection pool entries 2014-08-04 15:21:28,023 DEBUG [InsertThread --- 8] - Checking if  
connection limit has been reached for database 2014-08-04 15:21:28,023 DEBUG [InsertThread ---  
8] - Connecting to publisher so max number of connections allowed is 100 2014-08-04 15:21:28,023  
DEBUG [InsertThread --- 8] - Number of connections in use is 0 2014-08-04 15:21:28,023 DEBUG  
[InsertThread --- 8] - There are currently 2 connection pool entries 2014-08-04 15:21:28,023  
DEBUG [InsertThread --- 8] - Number of available connections in pool: 0 2014-08-04 15:21:28,079  
DEBUG [InsertThread --- 8] - Adding connection <com.informix.jdbc.IfxSqlConnect@162db76> to

```

connection list 2014-08-04 15:21:28,079 DEBUG [InsertThread --- 8] - Marking connection
<com.informix.jdbc.IfxSqlConnect@162db76> as used 2014-08-04 15:21:28,079 DEBUG [InsertThread -
-- 8] - Got connection from pool 2014-08-04 15:21:28,081 DEBUG [InsertThread --- 8] - Closing
the resultset. 2014-08-04 15:21:28,081 DEBUG [InsertThread --- 8] - Closing the connection.
Connection HashCode:14186201 --Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;)
2014-08-04 15:21:28,081 DEBUG [InsertThread --- 8] - Attempting to close connection 2014-08-04
15:21:28,081 DEBUG [InsertThread --- 8] - Removing connection <database, jdbcurl2> from
ConnectionManager list 2014-08-04 15:21:28,081 DEBUG [InsertThread --- 8] -
removeConnectionFromConnectionList() 2014-08-04 15:21:28,081 DEBUG [InsertThread --- 8] -
Removing connection <com.informix.jdbc.IfxSqlConnect@162db76> from connection list 2014-08-04
15:21:28,081 DEBUG [InsertThread --- 8] - Connection <com.informix.jdbc.IfxSqlConnect@162db76>
is not closed, adding it back to the pool entry <database, jdbcurl2> 2014-08-04 15:21:28,082 INFO
[InsertThread --- 8] - Connection/Statement/Resultset is closed properly. 2014-08-04
15:21:28,082 DEBUG [InsertThread --- 8] - Connection released from CertDBImpl.getCertificate
method. 2014-08-04 15:21:28,082 INFO [InsertThread --- 8] - OUT -- CertDBImpl.java -
getCertificate - 2014-08-04 15:21:28,082 INFO [InsertThread --- 8] - IN -- CertDBImpl.java -
getCertUnitByPkid(pkid) - 2014-08-04 15:21:28,083 DEBUG [InsertThread --- 8] - Connection
Initialized to localnode. Connection HashCode:20337133 --Details:Connector(NOT CONNECTED:
Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:28,083 DEBUG [InsertThread --- 8] - Select
Query to getCertUnitByPkid :SELECT A.PKID, A.FKCERTIFICATE, A.TKCERTIFICATESERVICE, B.NAME UNIT
FROM CERTIFICATESERVICECERTIFICATEMAP A, TYPECERTIFICATESERVICE B WHERE
A.FKCERTIFICATE="4152b36b-002e-68ac-711d-c373fa940779" AND A.TKCERTIFICATESERVICE = B.ENUM 2014-
08-04 15:21:28,083 DEBUG [InsertThread --- 8] - getConn:
usePooling[true]connectToLocalDB[true]_target[0]connectToPubByDefault[false] 2014-08-04
15:21:28,083 DEBUG [InsertThread --- 8] - Try to get a connection from pool 2014-08-04
15:21:28,083 DEBUG [InsertThread --- 8] - getting local connection from Pool 2014-08-04
15:21:28,083 DEBUG [InsertThread --- 8] - Getting connection from connection pool entry
<database, jdbcurl2> 2014-08-04 15:21:28,083 DEBUG [InsertThread --- 8] - There are currently 2
connection pool entries 2014-08-04 15:21:28,083 DEBUG [InsertThread --- 8] - Adding connection
<com.informix.jdbc.IfxSqlConnect@162db76> to connection list 2014-08-04 15:21:28,083 DEBUG
[InsertThread --- 8] - Marking connection <com.informix.jdbc.IfxSqlConnect@162db76> as used
2014-08-04 15:21:28,083 DEBUG [InsertThread --- 8] - Got connection from pool 2014-08-04
15:21:28,085 DEBUG [InsertThread --- 8] - Closing the resultset. 2014-08-04 15:21:28,085 DEBUG
[InsertThread --- 8] - Closing the connection. Connection HashCode:20337133 --
Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:28,085 DEBUG
[InsertThread --- 8] - Attempting to close connection 2014-08-04 15:21:28,085 DEBUG
[InsertThread --- 8] - Removing connection <database, jdbcurl2> from ConnectionManager list
2014-08-04 15:21:28,085 DEBUG [InsertThread --- 8] - removeConnectionFromConnectionList() 2014-
08-04 15:21:28,085 DEBUG [InsertThread --- 8] - Removing connection
<com.informix.jdbc.IfxSqlConnect@162db76> from connection list 2014-08-04 15:21:28,085 DEBUG
[InsertThread --- 8] - Connection <com.informix.jdbc.IfxSqlConnect@162db76> is not closed,
adding it back to the pool entry <database, jdbcurl2> 2014-08-04 15:21:28,085 INFO [InsertThread
--- 8] - Connection/Statement/Resultset is closed properly. 2014-08-04 15:21:28,085 DEBUG
[InsertThread --- 8] - Resultset released from CertDBImpl.getCertUnitByPkid method. 2014-08-04
15:21:28,085 INFO [InsertThread --- 8] - OUT -- CertDBImpl.java - getCertUnitByPkid - 2014-08-04
15:21:28,086 INFO [InsertThread --- 8] - UNIT : tomcat-trust 2014-08-04 15:21:28,086 INFO
[InsertThread --- 8] - CurrentIPAddress : 10.48.46.29 2014-08-04 15:21:28,086 INFO [InsertThread
--- 8] - RemoteIPAddress : 10.48.46.29 2014-08-04 15:21:28,086 INFO [InsertThread --- 8] -
OldSerialNo : 2014-08-04 15:21:28,086 INFO [InsertThread --- 8] - NewSerialNo
:7a40f8743a793b44fe802b5f3e1e6f36 2014-08-04 15:21:28,086 INFO [InsertThread --- 8] - IN --
CertUtil.java - getListFromComaSeperatedStr(..) - 2014-08-04 15:21:28,086 INFO [InsertThread ---
8] - OUT -- CertUtil.java - getListFromComaSeperatedStr - ## tomcat-trust is in scope of certCN
for import but since it is already on the file
## system the service will nothing with that one. 2014-08-04 15:21:28,086 INFO [InsertThread ---
8] - tomcat-trust --- is included unit for CN 2014-08-04 15:21:28,086 DEBUG [InsertThread --- 8]
- Change notification not require on same node except tomcat cert. 2014-08-04 15:21:28,086 INFO
[InsertThread --- 8] - tomcat-trust Certificate successfully updated in trust-store by Change
Notification.. 2014-08-04 15:21:28,086 INFO [InsertThread --- 8] - OUT --
CertKeystoreHandler.java - updateIntoKeystore - 2014-08-04 15:21:28,086 DEBUG [InsertThread ---
8] - InsertThread --- 8 -- END -- 2014-08-04 15:21:28,086 INFO [InsertThread --- 8] - OUT --
CertKeystoreHandler.java - run -

```

e. 在用户您看到同样发生， certCN获得通知更改，并且下导入在文件系统上的证书，等等创建符号链接。这能在日志之下被看到：

```
## service is notified about the change in DB. Notifications are related to two tables: 2014-08-04 15:21:29,298 INFO [Thread-5] - IN - process. changeData &colon; 2014-08-04 15:21:29,299 INFO [Thread-5] - Inside CERTIFICATE - I/U option.. ## CERTIFICATE one ... 2014-08-04 15:21:29,299 DEBUG [Thread-5] - Updated Data in CERTIFICATE
::<msg><type>DBL</type><table>certificate</table><tableid>41</tableid><action>I</action><time>1407158488</time><new><cdrserver>2</cdrserver><cdrtime>1407158487</cdrtime><pkid>4152b36b-002e-68ac-711d-c373fa940779</pkid><servername>CUCM861</servername><subjectname>L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco
Systems,C=PL</subjectname><issuename>L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco
Systems,C=PL</issuename><serialnumber>7a40f8743a793b44fe802b5f3e1e6f36</serialnumber><certificate></certificate><ipv4address>10.48.46.29</ipv4address><ipv6address></ipv6address><timetolive>NULL</timetolive><ifx_replcheck>6043699677659004930</ifx_replcheck></new></msg> 2014-08-04 15:21:29,299 DEBUG [Thread-5] - Certificate PKID : 4152b36b-002e-68ac-711d-c373fa940779 ,
ipAddress : 10.48.46.29 , OldSerialNo : , NewSerialNo : 7a40f8743a793b44fe802b5f3e1e6f36 2014-08-04 15:21:29,299 INFO [Thread-5] - OUT - process. 2014-08-04 15:21:29,299 INFO [InsertThread -- 35] - IN -- CertKeystoreHandler.java - run() - 2014-08-04 15:21:29,300 DEBUG [InsertThread -- 35] - InsertThread --- 35 -- START -- 2014-08-04 15:21:29,300 DEBUG [InsertThread --- 35] - DB Value UPDATE: 4152b36b-002e-68ac-711d-c373fa940779 2014-08-04 15:21:29,300 INFO [InsertThread -- 35] - IN -- CertKeystoreHandler.java - updateIntoKeystore() - 2014-08-04 15:21:29,300 INFO [InsertThread --- 35] - IN -- CertDBImpl.java - getCertificate(certBash64SHA1:null --
pkid:4152b36b-002e-68ac-711d-c373fa940779 2014-08-04 15:21:29,301 DEBUG [InsertThread --- 35] - Connection Initialized to localnode. Connection HashCode:30607587--Details:Connector(NOT CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:29,301 DEBUG [InsertThread --- 35] - Select Query to getCertificate :SELECT A.*,B.HASH FROM CERTIFICATE A, CERTIFICATEHASHMAP B WHERE A.PKID=B.FKCERTIFICATE AND A.PKID = "4152b36b-002e-68ac-711d-c373fa940779" 2014-08-04 15:21:29,301 DEBUG [InsertThread --- 35] - getConn:
usePooling[true]connectToLocalDB[true]_target[0]connectToPubByDefault[false] 2014-08-04 15:21:29,301 DEBUG [InsertThread --- 35] - Try to get a connection from pool 2014-08-04 15:21:29,301 DEBUG [InsertThread --- 35] - getting local connection from Pool 2014-08-04 15:21:29,301 DEBUG [InsertThread --- 35] - Getting connection from connection pool entry
<database,jdbcurl2> 2014-08-04 15:21:29,301 DEBUG [InsertThread --- 35] - There are currently 2 connection pool entries 2014-08-04 15:21:29,301 DEBUG [InsertThread --- 35] - Checking if connection limit has been reached for database 2014-08-04 15:21:29,302 DEBUG [InsertThread --- 35] - Connecting to subscriber so max number of connections allowed is 100 2014-08-04 15:21:29,302 DEBUG [InsertThread --- 35] - Number of connections in use is 0 2014-08-04 15:21:29,302 DEBUG [InsertThread --- 35] - There are currently 2 connection pool entries 2014-08-04 15:21:29,302 DEBUG [InsertThread --- 35] - Number of available connections in pool: 0
2014-08-04 15:21:29,315 INFO [Thread-5] - IN - process. changeData &colon; 2014-08-04 15:21:29,316 INFO [Thread-5] - Inside CERTIFICATESEVICECERTIFICATEMAP - I option.. ## ... and
CERTIFICATESEVICECERTIFICATEMAP 2014-08-04 15:21:29,316 DEBUG [Thread-5] - Updated Data in
CERTIFICATESEVICECERTIFICATEMAP
::<msg><type>DBL</type><table>certificateservicecertificatemap</table><tableid>44</tableid><action>I</action><time>1407158489</time><new><cdrserver>2</cdrserver><cdrtime>1407158487</cdrtime><pkid>798ff6e1-e1d6-42e5-a4e6-30d9d7360d6d</pkid><fkcertificate>4152b36b-002e-68ac-711d-c373fa940779</fkcertificate><tkcertificateservice>6</tkcertificateservice><ifx_replcheck>6043699681953972226</ifx_replcheck></new></msg> 2014-08-04 15:21:29,354 DEBUG [InsertThread --- 35] - Adding connection <com.informix.jdbc.IfxSqlConnect@lec9f34> to connection list 2014-08-04 15:21:29,355 DEBUG [InsertThread --- 35] - Marking connection
<com.informix.jdbc.IfxSqlConnect@lec9f34> as used 2014-08-04 15:21:29,355 DEBUG [InsertThread -- 35] - Got connection from pool 2014-08-04 15:21:29,363 DEBUG [InsertThread --- 35] - Closing the resultset. 2014-08-04 15:21:29,363 DEBUG [InsertThread --- 35] - Closing the connection.
Connection HashCode:30607587 --Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:29,363 DEBUG [InsertThread --- 35] - Attempting to close connection 2014-08-04 15:21:29,363 DEBUG [InsertThread --- 35] - Removing connection <database,jdbcurl2> from
ConnectionManager list 2014-08-04 15:21:29,363 DEBUG [InsertThread --- 35] -
removeConnectionFromConnectionList() 2014-08-04 15:21:29,363 DEBUG [InsertThread --- 35] -
Removing connection <com.informix.jdbc.IfxSqlConnect@lec9f34> from connection list 2014-08-04 15:21:29,363 DEBUG [InsertThread --- 35] - Connection <com.informix.jdbc.IfxSqlConnect@lec9f34>
is not closed, adding it back to the pool entry <database,jdbcurl2> 2014-08-04 15:21:29,363 INFO [InsertThread --- 35] - Connection/Statement/Resultset is closed properly. 2014-08-04 15:21:29,363 DEBUG [InsertThread --- 35] - Connection released from CertDBImpl.getCertificate
method. 2014-08-04 15:21:29,363 INFO [InsertThread --- 35] - OUT -- CertDBImpl.java -
getCertificate - 2014-08-04 15:21:29,363 INFO [InsertThread --- 35] - IN -- CertDBImpl.java -
```

getCertUnitByPkid(pkid) - 2014-08-04 15:21:29,364 DEBUG [InsertThread --- 35] - Connection  
Initialized to localnode. Connection HashCode:29897942 --Details:Connector(NOT CONNECTED:  
Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:29,364 DEBUG [InsertThread --- 35] -  
Select Query to getCertUnitByPkid :SELECT A.PKID, A.FKCERTIFICATE, A.TKCERTIFICATESERVICE,  
B.NAME UNIT FROM CERTIFICATESERVICECERTIFICATEMAP A, TYPECERTIFICATESERVICE B WHERE  
A.FKCERTIFICATE="4152b36b-002e-68ac-711d-c373fa940779" AND A.TKCERTIFICATESERVICE = B.ENUM 2014-  
08-04 15:21:29,364 DEBUG [InsertThread --- 35] - getConn:  
usePooling[true]connectToLocalDB[true]\_target[0]connectToPubByDefault[false] 2014-08-04  
15:21:29,364 DEBUG [InsertThread --- 35] - Try to get a connection from pool 2014-08-04  
15:21:29,364 DEBUG [InsertThread --- 35] - getting local connection from Pool 2014-08-04  
15:21:29,364 DEBUG [InsertThread --- 35] - Getting connection from connection pool entry  
<database,jdbcurl2> 2014-08-04 15:21:29,364 DEBUG [InsertThread --- 35] - There are currently 2  
connection pool entries 2014-08-04 15:21:29,364 DEBUG [InsertThread --- 35] - Adding connection  
<com.informix.jdbc.IfxSqliConnect@lec9f34> to connection list 2014-08-04 15:21:29,364 DEBUG  
[InsertThread --- 35] - Marking connection <com.informix.jdbc.IfxSqliConnect@lec9f34> as used  
2014-08-04 15:21:29,364 DEBUG [InsertThread --- 35] - Got connection from pool 2014-08-04  
15:21:29,369 DEBUG [InsertThread --- 35] - Closing the resultset. 2014-08-04 15:21:29,369 DEBUG  
[InsertThread --- 35] - Closing the connection. Connection HashCode:29897942 --  
Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:29,369 DEBUG  
[InsertThread --- 35] - Attempting to close connection 2014-08-04 15:21:29,369 DEBUG  
[InsertThread --- 35] - Removing connection <database, jdbcurl2> from ConnectionManager list  
2014-08-04 15:21:29,369 DEBUG [InsertThread --- 35] - removeConnectionFromConnectionList() 2014-  
08-04 15:21:29,369 DEBUG [InsertThread --- 35] - Removing connection  
<com.informix.jdbc.IfxSqliConnect@lec9f34> from connection list 2014-08-04 15:21:29,369 DEBUG  
[InsertThread --- 35] - Connection <com.informix.jdbc.IfxSqliConnect@lec9f34> is not closed,  
adding it back to the pool entry <database,jdbcurl2> 2014-08-04 15:21:29,369 INFO [InsertThread  
--- 35] - Connection/Statement/Resultset is closed properly. 2014-08-04 15:21:29,369 DEBUG  
[InsertThread --- 35] - Resultset released from CertDBImpl.getCertUnitByPkid method. 2014-08-04  
15:21:29,370 INFO [InsertThread --- 35] - OUT -- CertDBImpl.java - getCertUnitByPkid - 2014-08-  
04 15:21:29,370 INFO [InsertThread --- 35] - UNIT : tomcat-trust 2014-08-04 15:21:29,370 INFO  
[InsertThread --- 35] - CurrentIPAddress : 10.48.46.30 2014-08-04 15:21:29,370 INFO  
[InsertThread --- 35] - RemoteIPAddress : 10.48.46.29 2014-08-04 15:21:29,370 INFO [InsertThread  
--- 35] - OldSerialNo : 2014-08-04 15:21:29,370 INFO [InsertThread --- 35] - NewSerialNo  
:7a40f8743a793b44fe802b5f3e1e6f36 2014-08-04 15:21:29,370 INFO [InsertThread --- 35] - IN --  
CertUtil.java - getListFromComaSeperatedStr(..) - 2014-08-04 15:21:29,370 INFO [InsertThread ---  
35] - OUT -- CertUtil.java - getListFromComaSeperatedStr - 2014-08-04 15:21:29,370 INFO  
[InsertThread --- 35] - tomcat-trust --- is included unit for CN 2014-08-04 15:21:29,370 INFO  
[InsertThread --- 35] - IN -- CertUtil.java - loadCertFromString(cert) - 2014-08-04 15:21:29,370  
INFO [InsertThread --- 35] - IN -- RSACryptoEngine.java - loadCertificate(..) - 2014-08-04  
15:21:29,373 INFO [InsertThread --- 35] - OUT -- RSACryptoEngine.java - loadCertificate - 2014-  
08-04 15:21:29,373 INFO [InsertThread --- 35] - OUT -- CertUtil.java - loadCertFromString - ##  
**Info about the certificate has been received. CertCN will try to delete old**  
**## tomcat-trust for this node (if any) and import it** 2014-08-04 15:21:29,373 INFO [InsertThread  
--- 35] - IN -- CertDBUtil.java - checkDeleteAndImport(unit, dbCert) - 2014-08-04 15:21:29,373  
INFO [InsertThread --- 35] - DB CertInfo.--SN:162503161730851213217569888696899890998--  
SubjectDN:L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL--GetNotBefore:Mon Aug 04  
15:19:07 CEST 2014--GetNotAfter:Sat Aug 03 15:19:06 CEST 2019 2014-08-04 15:21:29,373 INFO  
[InsertThread --- 35] - loading certificate element named [tomcat-trust] 2014-08-04 15:21:29,373  
INFO [InsertThread --- 35] - determining certificates in group [product-cpi] with type [trust-  
certs] 2014-08-04 15:21:29,373 INFO [InsertThread --- 35] - loading the config file  
[/usr/local/platform/conf/cert-conf.xml] 2014-08-04 15:21:29,374 INFO [InsertThread --- 35] -  
looking for first [trust-certs] in [product-cpi] 2014-08-04 15:21:29,374 INFO [InsertThread ---  
35] - loaded element [tomcat-trust] 2014-08-04 15:21:29,374 INFO [InsertThread --- 35] -  
determining cert dir for [tomcat-trust] 2014-08-04 15:21:29,374 INFO [InsertThread --- 35] -  
looking for first [dir] in [tomcat-trust] 2014-08-04 15:21:29,374 INFO [InsertThread --- 35] -  
getting the value of [dir] 2014-08-04 15:21:29,374 INFO [InsertThread --- 35] - value is  
[/usr/local/platform/.security/tomcat/trust-certs] 2014-08-04 15:21:29,374 INFO [InsertThread --  
- 35] - cert dir is [/usr/local/platform/.security/tomcat/trust-certs] 2014-08-04 15:21:29,375  
INFO [InsertThread --- 35] - [/usr/local/platform/.security/tomcat/trust-  
certs/VeriSign\_Class\_3\_Secure\_Server\_CA\_-\_G3.description] match is false 2014-08-04 15:21:29,375  
INFO [InsertThread --- 35] - [/usr/local/platform/.security/tomcat/trust-  
certs/CUCM861s.description] match is false 2014-08-04 15:21:29,375 INFO [InsertThread --- 35] -  
[/usr/local/platform/.security/tomcat/trust-certs/VeriSign\_Class\_3\_Secure\_Server\_CA\_-\_G3.pem]  
match is true 2014-08-04 15:21:29,375 INFO [InsertThread --- 35] -



```
[/usr/local/platform/.security/tomcat/trust-certs/VeriSign_Class_3_Secure_Server_CA_-_G3.der]
match is true 2014-08-04 15:21:29,375 INFO [InsertThread --- 35] -
[/usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore] match is false 2014-08-
04 15:21:29,375 INFO [InsertThread --- 35] - [/usr/local/platform/.security/tomcat/trust-
certs/CUCM861s.der] match is true 2014-08-04 15:21:29,375 INFO [InsertThread --- 35] -
[/usr/local/platform/.security/tomcat/trust-certs/CUCM861.der] match is true 2014-08-04
15:21:29,375 INFO [InsertThread --- 35] - [/usr/local/platform/.security/tomcat/trust-
certs/CUCM861.description] match is false 2014-08-04 15:21:29,375 INFO [InsertThread --- 35] -
[/usr/local/platform/.security/tomcat/trust-certs/7e0370f0.0] match is false 2014-08-04
15:21:29,375 INFO [InsertThread --- 35] - [/usr/local/platform/.security/tomcat/trust-
certs/d0aacffb.0] match is false 2014-08-04 15:21:29,375 INFO [InsertThread --- 35] -
[/usr/local/platform/.security/tomcat/trust-certs/101f99a6.0] match is false 2014-08-04
15:21:29,375 INFO [InsertThread --- 35] - [/usr/local/platform/.security/tomcat/trust-
certs/CUCM861.pem] match is true 2014-08-04 15:21:29,375 INFO [InsertThread --- 35] -
[/usr/local/platform/.security/tomcat/trust-certs/CUCM861s.pem] match is true 2014-08-04
15:21:29,375 INFO [InsertThread --- 35] - IN -- RSACryptoEngine.java - loadCertificate(..) -
2014-08-04 15:21:29,375 INFO [InsertThread --- 35] - OUT -- RSACryptoEngine.java -
loadCertificate - 2014-08-04 15:21:29,375 INFO [InsertThread --- 35] - IN --
RSACryptoEngine.java - loadCertificate(..) - 2014-08-04 15:21:29,375 INFO [InsertThread --- 35]
- OUT -- RSACryptoEngine.java - loadCertificate - 2014-08-04 15:21:29,375 INFO [InsertThread ---
35] - IN -- RSACryptoEngine.java - loadCertificate(..) - 2014-08-04 15:21:29,376 INFO
[InsertThread --- 35] - OUT -- RSACryptoEngine.java - loadCertificate - 2014-08-04 15:21:29,376
INFO [InsertThread --- 35] - IN -- CertDBUtil.java - importTrustCertInFileSystem.. unit :
tomcat-trust 2014-08-04 15:21:29,376 INFO [InsertThread --- 35] - IN -- CertDBUtil.java -
populateOpInfo(operation, unit, type, fileLocation, x509Cert, isDBInsert) - 2014-08-04
15:21:29,376 INFO [InsertThread --- 35] - loading certificate element named [tomcat-trust] 2014-
08-04 15:21:29,376 INFO [InsertThread --- 35] - determining certificates in group [product-cpi]
with type [trust-certs] 2014-08-04 15:21:29,376 INFO [InsertThread --- 35] - loading the config
file [/usr/local/platform/conf/cert-conf.xml] 2014-08-04 15:21:29,377 INFO [InsertThread --- 35]
- looking for first [trust-certs] in [product-cpi] 2014-08-04 15:21:29,377 INFO [InsertThread --
- 35] - loaded element [tomcat-trust] 2014-08-04 15:21:29,377 INFO [InsertThread --- 35] -
determining key dir for [tomcat-trust] 2014-08-04 15:21:29,377 INFO [InsertThread --- 35] -
looking for first [key-dir] in [tomcat-trust] 2014-08-04 15:21:29,377 INFO [InsertThread --- 35]
- getting the value of [key-dir] 2014-08-04 15:21:29,377 INFO [InsertThread --- 35] - value is
[/usr/local/platform/.security/tomcat/keys] 2014-08-04 15:21:29,377 INFO [InsertThread --- 35] -
key dir is [/usr/local/platform/.security/tomcat/keys] 2014-08-04 15:21:29,377 INFO
[InsertThread --- 35] - loading certificate element named [tomcat-trust] 2014-08-04 15:21:29,377
INFO [InsertThread --- 35] - determining certificates in group [product-cpi] with type [trust-
certs] 2014-08-04 15:21:29,377 INFO [InsertThread --- 35] - loading the config file
[/usr/local/platform/conf/cert-conf.xml] 2014-08-04 15:21:29,379 INFO [InsertThread --- 35] -
looking for first [trust-certs] in [product-cpi] 2014-08-04 15:21:29,379 INFO [InsertThread ---
35] - loaded element [tomcat-trust] 2014-08-04 15:21:29,379 INFO [InsertThread --- 35] -
determining cert dir for [tomcat-trust] 2014-08-04 15:21:29,379 INFO [InsertThread --- 35] -
looking for first [dir] in [tomcat-trust] 2014-08-04 15:21:29,379 INFO [InsertThread --- 35] -
getting the value of [dir] 2014-08-04 15:21:29,379 INFO [InsertThread --- 35] - value is
[/usr/local/platform/.security/tomcat/trust-certs] 2014-08-04 15:21:29,379 INFO [InsertThread --
- 35] - cert dir is [/usr/local/platform/.security/tomcat/trust-certs] 2014-08-04 15:21:29,379
INFO [InsertThread --- 35] - OUT -- CertDBUtil.java - populateOpInfo - 2014-08-04 15:21:29,379
INFO [InsertThread --- 35] - IN -- CertMgr.java - getCertMgrObj(unit) - tomcat-trust 2014-08-04
15:21:29,379 INFO [InsertThread --- 35] - OUT -- CertMgr.java - getCertMgrObj -
com.cisco.cpi.certMgmt.manager.TomcatCertMgr@104f57f 2014-08-04 15:21:29,379 INFO [InsertThread
--- 35] - IN -- DefaultCertMgr.java - importCert(info) - decode: true op: import unit: tomcat-
trust keystoreUnit:tomcat-trust logFile: /var/log/active/platform/log/cert-mgmt.log resultFile:
/var/log/active/platform/log/certde-info.xml keyDir: /usr/local/platform/.security/tomcat/keys
certDir: /usr/local/platform/.security/tomcat/trust-certs srcCert: null type: trust-certs
rootCACert: null trustDir: null DNAME: null description:null isDBInsert:false 2014-08-04
15:21:29,379 DEBUG [InsertThread --- 35] - Checking validity of cert 2014-08-04 15:21:29,379
INFO [InsertThread --- 35] - Verifying certificate
L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL 2014-08-04 15:21:29,379 INFO
[InsertThread --- 35] - IN -- CertUtil.java - parseCNfromDN(DN, sSearchStr) - 2014-08-04
15:21:29,379 DEBUG [InsertThread --- 35] - parseCNfromDN( certSubjDN:
'L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL') 2014-08-04 15:21:29,379 DEBUG
[InsertThread --- 35] - Truncating CN 'CUCM9X,OU=TAC,O=Cisco Systems,C=PL' -> 'CUCM9X' 2014-08-
04 15:21:29,379 INFO [InsertThread --- 35] - OUT -- CertUtil.java - parseCNfromDN - 2014-08-04
```

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15:21:29,379 DEBUG [InsertThread --- 35] - Parsed CN 'CUCM9X' from DN
'L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL' 2014-08-04 15:21:29,379 INFO
[InsertThread --- 35] - trying to load cert from trust store
::/usr/local/platform/.security/tomcat/trust-certs/CUCM9X.pem 2014-08-04 15:21:29,379 INFO
[InsertThread --- 35] - cert not available in trust store
::L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL 2014-08-04 15:21:29,379 INFO
[InsertThread --- 35] - IN -- DefaultCertMgr.java - importTrustCert(info, cert) - 2014-08-04
15:21:29,379 INFO [InsertThread --- 35] - IN -- DefaultCertMgr.java - saveToTrustStore(info,
cert) - 2014-08-04 15:21:29,379 ERROR [InsertThread --- 35] - trust directory parameter is null
2014-08-04 15:21:29,379 INFO [InsertThread --- 35] - IN -- DefaultCertMgr.java -
saveTrustCert(cert, targetDir, certType) - 2014-08-04 15:21:29,379 INFO [InsertThread --- 35] -
IN -- CertUtil.java - parseCNfromDN(DN, sSearchStr) - 2014-08-04 15:21:29,379 DEBUG
[InsertThread --- 35] - parseCNfromDN( certSubjDN:
'L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL') 2014-08-04 15:21:29,379 DEBUG
[InsertThread --- 35] - Truncating CN 'CUCM9X,OU=TAC,O=Cisco Systems,C=PL' -> 'CUCM9X' 2014-08-
04 15:21:29,379 INFO [InsertThread --- 35] - OUT -- CertUtil.java - parseCNfromDN - 2014-08-04
15:21:29,379 DEBUG [InsertThread --- 35] - Parsed CN 'CUCM9X' from DN
'L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL' 2014-08-04 15:21:29,379 INFO
[InsertThread --- 35] - IN -- CertUtil.java - parseCNfromDN(DN, sSearchStr) - 2014-08-04
15:21:29,379 DEBUG [InsertThread --- 35] - parseCNfromDN( certSubjDN:
'L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL') 2014-08-04 15:21:29,379 DEBUG
[InsertThread --- 35] - Truncating CN 'CUCM9X,OU=TAC,O=Cisco Systems,C=PL' -> 'CUCM9X' 2014-08-
04 15:21:29,379 INFO [InsertThread --- 35] - OUT -- CertUtil.java - parseCNfromDN - 2014-08-04
15:21:29,379 DEBUG [InsertThread --- 35] - Parsed CN 'CUCM9X' from DN
'L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL' ## certificate will be stored in
filesystem with below name (CN from cert). Old
## certificate for CUCM9X has not been found 2014-08-04 15:21:29,379 DEBUG [InsertThread --- 35]
- target filename for imported cert: 'CUCM9X.pem' 2014-08-04 15:21:29,379 DEBUG [InsertThread --
- 35] - existing certificate with same filename not found. ## saving certificate as *.pem and
*.der 2014-08-04 15:21:29,379 DEBUG [InsertThread --- 35] - Saving PEM encoded cert
'/usr/local/platform/.security/tomcat/trust-certs/CUCM9X.pem' 2014-08-04 15:21:29,379 INFO
[InsertThread --- 35] - IN -- CryptoUtil.java - saveAsPEM(..) - File :
/usr/local/platform/.security/tomcat/trust-certs/CUCM9X.pem 2014-08-04 15:21:29,403 INFO
[InsertThread --- 35] - OUT -- CryptoUtil.java - saveAsPEM - 2014-08-04 15:21:29,403 DEBUG
[InsertThread --- 35] - Saving DER encoded cert '/usr/local/platform/.security/tomcat/trust-
certs/CUCM9X.der' 2014-08-04 15:21:29,406 INFO [InsertThread --- 35] - OUT --
DefaultCertMgr.java - saveTrustCert - 2014-08-04 15:21:29,406 INFO [InsertThread --- 35] - IN --
TomcatCertMgr.java - saveToKeyStore(..) - 2014-08-04 15:21:29,406 INFO [InsertThread --- 35] -
IN -- RSACryptoEngine.java - saveToKeyStore(keystoreFile, keystorePass, x509Certificate, alias)
- 2014-08-04 15:21:29,406 INFO [InsertThread --- 35] - IN -- RSACryptoEngine.java -
loadKeyStore(keystoreFile, keystorePass) - 2014-08-04 15:21:29,421 INFO [InsertThread --- 35] -
OUT -- RSACryptoEngine.java - loadKeyStore - 2014-08-04 15:21:29,421 INFO [InsertThread --- 35]
- Size of the keystore before import is : 3 2014-08-04 15:21:29,421 INFO [InsertThread --- 35] -
Importing certificate : CUCM9X 2014-08-04 15:21:29,428 INFO [InsertThread --- 35] - Size of the
keystore after import is : 4 2014-08-04 15:21:29,428 INFO [InsertThread --- 35] - OUT --
RSACryptoEngine.java - saveToKeyStore - 2014-08-04 15:21:29,428 INFO [InsertThread --- 35] - OUT
-- TomcatCertMgr.java - saveToKeyStore - 2014-08-04 15:21:29,428 DEBUG [InsertThread --- 35] -
TrustCert description filename : 'CUCM9X.description' 2014-08-04 15:21:29,439 INFO [InsertThread
--- 35] - IN -- DefaultCertMgr.java - createDescriptionFile(name, description) - 2014-08-04
15:21:29,439 INFO [InsertThread --- 35] - description is :Trust Certificate 2014-08-04
15:21:29,446 INFO [InsertThread --- 35] - OUT -- DefaultCertMgr.java - createDescriptionFile -
2014-08-04 15:21:29,446 INFO [InsertThread --- 35] - IN -- DefaultCertMgr.java -
setOwnershipAndPermissions(file) - ## setting necessary permissions for the new created files
(correcting access, owner and
## group) 2014-08-04 15:21:29,446 DEBUG [InsertThread --- 35] - setOwnershipAndPermissions :
CUCM9X.description 2014-08-04 15:21:29,446 DEBUG [InsertThread --- 35] - Changing ownership of
file '/usr/local/platform/.security/tomcat/trust-certs/CUCM9X.description' 2014-08-04
15:21:29,446 INFO [InsertThread --- 35] - IN -- Util.java - sysExec(exe, args) - 2014-08-04
15:21:29,446 DEBUG [InsertThread --- 35] - Executing command from Util.sysExec : /bin/chown
certbase /usr/local/platform/.security/tomcat/trust-certs/CUCM9X.description 2014-08-04
15:21:29,471 INFO [InsertThread --- 35] - OUT -- Util.java - sysExec - 2014-08-04 15:21:29,471
DEBUG [InsertThread --- 35] - Changing group ownership of file
'/usr/local/platform/.security/tomcat/trust-certs/CUCM9X.description' 2014-08-04 15:21:29,472
INFO [InsertThread --- 35] - IN -- Util.java - sysExec(exe, args) - 2014-08-04 15:21:29,472
```

DEBUG [InsertThread --- 35] - Executing command from Util.sysExec : /bin/chgrp ccmbase  
/usr/local/platform/.security/tomcat/trust-certs/CUCM9X.description 2014-08-04 15:21:29,474 INFO  
[InsertThread --- 35] - OUT -- Util.java - sysExec - 2014-08-04 15:21:29,475 DEBUG [InsertThread  
--- 35] - Changing mode of file '/usr/local/platform/.security/tomcat/trust-  
certs/CUCM9X.description' 2014-08-04 15:21:29,475 INFO [InsertThread --- 35] - IN -- Util.java -  
sysExec(exe, args) - 2014-08-04 15:21:29,475 DEBUG [InsertThread --- 35] - Executing command  
from Util.sysExec : /bin/chmod 755 /usr/local/platform/.security/tomcat/trust-  
certs/CUCM9X.description 2014-08-04 15:21:29,484 INFO [InsertThread --- 35] - OUT -- Util.java -  
sysExec - 2014-08-04 15:21:29,484 INFO [InsertThread --- 35] - OUT -- DefaultCertMgr.java -  
setOwnershipAndPermissions - 2014-08-04 15:21:29,484 INFO [InsertThread --- 35] - OUT --  
DefaultCertMgr.java - saveToTrustStore - 2014-08-04 15:21:29,485 INFO [InsertThread --- 35] -  
trustdir : /usr/local/platform/.security/tomcat/trust-certs 2014-08-04 15:21:29,485 INFO  
[InsertThread --- 35] - IN -- Util.java - sysExec(exe, args) - 2014-08-04 15:21:29,485 DEBUG  
[InsertThread --- 35] - Executing command from Util.sysExec : python  
/usr/local/platform/bin/c\_rehash.py /usr/local/platform/.security/tomcat/trust-certs 2014-08-04  
15:21:29,668 INFO [InsertThread --- 35] - OUT -- Util.java - sysExec - 2014-08-04 15:21:29,668  
INFO [InsertThread --- 35] - IN -- DefaultCertMgr.java - setOwnershipAndPermissions(file) -  
2014-08-04 15:21:29,668 DEBUG [InsertThread --- 35] - setOwnershipAndPermissions : trust-certs  
2014-08-04 15:21:29,668 DEBUG [InsertThread --- 35] - Changing ownership of file  
'/usr/local/platform/.security/tomcat/trust-certs' 2014-08-04 15:21:29,668 INFO [InsertThread --  
- 35] - IN -- Util.java - sysExec(exe, args) - 2014-08-04 15:21:29,669 DEBUG [InsertThread ---  
35] - Executing command from Util.sysExec : /bin/chown -R certbase  
/usr/local/platform/.security/tomcat/trust-certs 2014-08-04 15:21:29,675 INFO [InsertThread ---  
35] - OUT -- Util.java - sysExec - 2014-08-04 15:21:29,675 DEBUG [InsertThread --- 35] -  
Changing group ownership of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-04  
15:21:29,675 INFO [InsertThread --- 35] - IN -- Util.java - sysExec(exe, args) - 2014-08-04  
15:21:29,675 DEBUG [InsertThread --- 35] - Executing command from Util.sysExec : /bin/chgrp -R  
ccmbase /usr/local/platform/.security/tomcat/trust-certs 2014-08-04 15:21:29,680 INFO  
[InsertThread --- 35] - OUT -- Util.java - sysExec - 2014-08-04 15:21:29,680 DEBUG [InsertThread  
--- 35] - Changing mode of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-04  
15:21:29,680 INFO [InsertThread --- 35] - IN -- Util.java - sysExec(exe, args) - 2014-08-04  
15:21:29,680 DEBUG [InsertThread --- 35] - Executing command from Util.sysExec : /bin/chmod -R  
755 /usr/local/platform/.security/tomcat/trust-certs 2014-08-04 15:21:29,683 INFO [InsertThread  
--- 35] - OUT -- Util.java - sysExec - 2014-08-04 15:21:29,683 INFO [InsertThread --- 35] - OUT  
-- DefaultCertMgr.java - setOwnershipAndPermissions - 2014-08-04 15:21:29,683 INFO [InsertThread  
--- 35] - No plugins registered for DB Store 2014-08-04 15:21:29,683 INFO [InsertThread --- 35]  
- IN -- CryptoUtil.java - isOCSPEnabled(..) - 2014-08-04 15:21:29,683 INFO [InsertThread --- 35]  
- IN -- CryptoUtil.java - getCertMonitorXmlParser(..) - 2014-08-04 15:21:29,683 INFO  
[InsertThread --- 35] - OUT -- CryptoUtil.java - getCertMonitorXmlParser - 2014-08-04  
15:21:29,683 INFO [InsertThread --- 35] - OUT -- CryptoUtil.java - isOCSPEnabled - false 2014-  
08-04 15:21:29,683 DEBUG [InsertThread --- 35] - OCSP is not enabled. 2014-08-04 15:21:29,683  
INFO [InsertThread --- 35] - Successfully imported trusted certificate with Subject  
DN:L#61;Krakow,ST#61;Malopolska,CN#61;CUCM9X,OU#61;TAC,O#61;Cisco Systems,C#61;PL 2014-08-  
04 15:21:29,683 INFO [InsertThread --- 35] - OUT -- DefaultCertMgr.java - importTrustCert -  
Successfully imported trusted certificate with Subject  
DN:L#61;Krakow,ST#61;Malopolska,CN#61;CUCM9X,OU#61;TAC,O#61;Cisco Systems,C#61;PL ##  
**inserting certificate ends with success** 2014-08-04 15:21:29,683 INFO [InsertThread --- 35] -  
result of import operations is ::Import of trust certificate is successful 2014-08-04  
15:21:29,683 INFO [InsertThread --- 35] - OUT -- DefaultCertMgr.java - importCert - 2014-08-04  
15:21:29,683 INFO [InsertThread --- 35] - OUT -- CertDBUtil.java - importTrustCertInFileSystem -  
2014-08-04 15:21:29,683 INFO [InsertThread --- 35] - OUT -- CertDBUtil.java -  
checkDeleteAndImport - 2014-08-04 15:21:29,683 INFO [InsertThread --- 35] - tomcat-trust  
Certificate successfully updated in trust-store by Change Notification.. 2014-08-04 15:21:29,683  
INFO [InsertThread --- 35] - OUT -- CertKeystoreHandler.java - updateIntoKeystore - 2014-08-04  
15:21:29,683 DEBUG [InsertThread --- 35] - InsertThread --- 35 -- END -- 2014-08-04 15:21:29,683  
INFO [InsertThread --- 35] - OUT -- CertKeystoreHandler.java - run - 2014-08-04 15:21:29,786  
DEBUG [ConnectionCleaner] - Cleaning connection list ## **above process was the result for row  
inserted into CERTIFICATE table. Similar check**  
**## will be done for the row inserted into CERTIFICATESERVICECERTIFICATEMAP** 2014-08-04  
15:21:34,322 INFO [Thread-5] - Inside CERTIFICATESERVICECERTIFICATEMAP - I option.. 2014-08-04  
15:21:34,322 DEBUG [Thread-5] - Insert Data in CERTIFICATESERVICECERTIFICATEMAP  
::<msg><type>DBL</type><table>certificateservicecertificatemap</table><tableid>44</tableid><acti  
on>I</action><time>1407158489</time><new><cdrserver>2</cdrserver><cdftime>1407158487</cdftime><p  
kid>798ff6e1-e1d6-42e5-a4e6-30d9d7360d6d</pkid><fkcertificate>4152b36b-002e-68ac-711d-

c373fa940779</fkcertificate><tkcertificateservice>6</tkcertificateservice><ifx\_replcheck>6043699  
681953972226</ifx\_replcheck></new></msg> 2014-08-04 15:21:34,322 INFO [Thread-5] - IN --  
CertDBImpl.java - getCertificate(certBash64SHA1:null --pkid:4152b36b-002e-68ac-711d-c373fa940779  
2014-08-04 15:21:34,323 DEBUG [Thread-5] - Connection Initialized to localnode. Connection  
HashCode:32140521 --Details:Connector(NOT CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-  
08-04 15:21:34,323 DEBUG [Thread-5] - Select Query to getCertificate :SELECT A.\*,B.HASH FROM  
CERTIFICATE A, CERTIFICATEHASHMAP B WHERE A.PKID=B.FKCERTIFICATE AND A.PKID = "4152b36b-002e-  
68ac-711d-c373fa940779" 2014-08-04 15:21:34,323 DEBUG [Thread-5] - getConn:  
usePooling[true]connectToLocalDB[true]\_target[0]connectToPubByDefault[false] 2014-08-04  
15:21:34,323 DEBUG [Thread-5] - Try to get a connection from pool 2014-08-04 15:21:34,323 DEBUG  
[Thread-5] - getting local connection from Pool 2014-08-04 15:21:34,324 DEBUG [Thread-5] -  
Getting connection from connection pool entry <database,jdbcurl2> 2014-08-04 15:21:34,324 DEBUG  
[Thread-5] - There are currently 2 connection pool entries 2014-08-04 15:21:34,324 DEBUG  
[Thread-5] - Adding connection <com.informix.jdbc.IfxSqliConnect@lec9f34> to connection list  
2014-08-04 15:21:34,324 DEBUG [Thread-5] - Marking connection  
<com.informix.jdbc.IfxSqliConnect@lec9f34> as used 2014-08-04 15:21:34,324 DEBUG [Thread-5] -  
Got connection from pool 2014-08-04 15:21:34,328 DEBUG [Thread-5] - Closing the resultset. 2014-  
08-04 15:21:34,329 DEBUG [Thread-5] - Closing the connection. Connection HashCode:32140521 --  
Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:34,329 DEBUG  
[Thread-5] - Attempting to close connection 2014-08-04 15:21:34,329 DEBUG [Thread-5] - Removing  
connection <database, jdbcurl2> from ConnectionManager list 2014-08-04 15:21:34,329 DEBUG  
[Thread-5] - removeConnectionFromConnectionList() 2014-08-04 15:21:34,329 DEBUG [Thread-5] -  
Removing connection <com.informix.jdbc.IfxSqliConnect@lec9f34> from connection list 2014-08-04  
15:21:34,329 DEBUG [Thread-5] - Connection <com.informix.jdbc.IfxSqliConnect@lec9f34> is not  
closed, adding it back to the pool entry <database,jdbcurl2> 2014-08-04 15:21:34,329 INFO  
[Thread-5] - Connection/Statement/Resultset is closed properly. 2014-08-04 15:21:34,329 DEBUG  
[Thread-5] - Connection released from CertDBImpl.getCertificate method. 2014-08-04 15:21:34,329  
INFO [Thread-5] - OUT -- CertDBImpl.java - getCertificate - 2014-08-04 15:21:34,329 DEBUG  
[Thread-5] - Certificate PKID : 4152b36b-002e-68ac-711d-c373fa940779 , ipAddress : 10.48.46.29 ,  
OldSerialNo : 7a40f8743a793b44fe802b5f3e1e6f36 , NewSerialNo : 7a40f8743a793b44fe802b5f3e1e6f36  
2014-08-04 15:21:34,329 INFO [Thread-5] - OUT - process. 2014-08-04 15:21:34,330 INFO  
[InsertThread --- 36] - IN -- CertKeystoreHandler.java - run() - 2014-08-04 15:21:34,330 DEBUG  
[InsertThread --- 36] - InsertThread --- 36 -- START -- 2014-08-04 15:21:34,330 DEBUG  
[InsertThread --- 36] - DB Value UPDATE: 4152b36b-002e-68ac-711d-c373fa940779 2014-08-04  
15:21:34,330 INFO [InsertThread --- 36] - IN -- CertKeystoreHandler.java - updateIntoKeystore()  
- 2014-08-04 15:21:34,330 INFO [InsertThread --- 36] - IN -- CertDBImpl.java -  
getCertificate(certBash64SHA1:null --pkid:4152b36b-002e-68ac-711d-c373fa940779 2014-08-04  
15:21:34,330 DEBUG [InsertThread --- 36] - Connection Initialized to localnode. Connection  
HashCode:14972385 --Details:Connector(NOT CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-  
08-04 15:21:34,330 DEBUG [InsertThread --- 36] - Select Query to getCertificate :SELECT  
A.\*,B.HASH FROM CERTIFICATE A, CERTIFICATEHASHMAP B WHERE A.PKID=B.FKCERTIFICATE AND A.PKID =  
"4152b36b-002e-68ac-711d-c373fa940779" 2014-08-04 15:21:34,330 DEBUG [InsertThread --- 36] -  
getConn: usePooling[true]connectToLocalDB[true]\_target[0]connectToPubByDefault[false] 2014-08-04  
15:21:34,330 DEBUG [InsertThread --- 36] - Try to get a connection from pool 2014-08-04  
15:21:34,330 DEBUG [InsertThread --- 36] - getting local connection from Pool 2014-08-04  
15:21:34,330 DEBUG [InsertThread --- 36] - Getting connection from connection pool entry  
<database,jdbcurl2> 2014-08-04 15:21:34,330 DEBUG [InsertThread --- 36] - There are currently 2  
connection pool entries 2014-08-04 15:21:34,330 DEBUG [InsertThread --- 36] - Adding connection  
<com.informix.jdbc.IfxSqliConnect@lec9f34> to connection list 2014-08-04 15:21:34,330 DEBUG  
[InsertThread --- 36] - Marking connection <com.informix.jdbc.IfxSqliConnect@lec9f34> as used  
2014-08-04 15:21:34,331 DEBUG [InsertThread --- 36] - Got connection from pool 2014-08-04  
15:21:34,333 DEBUG [InsertThread --- 36] - Closing the resultset. 2014-08-04 15:21:34,333 DEBUG  
[InsertThread --- 36] - Closing the connection. Connection HashCode:14972385 --  
Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:34,333 DEBUG  
[InsertThread --- 36] - Attempting to close connection 2014-08-04 15:21:34,333 DEBUG  
[InsertThread --- 36] - Removing connection <database, jdbcurl2> from ConnectionManager list  
2014-08-04 15:21:34,333 DEBUG [InsertThread --- 36] - removeConnectionFromConnectionList() 2014-  
08-04 15:21:34,333 DEBUG [InsertThread --- 36] - Removing connection  
<com.informix.jdbc.IfxSqliConnect@lec9f34> from connection list 2014-08-04 15:21:34,334 DEBUG  
[InsertThread --- 36] - Connection <com.informix.jdbc.IfxSqliConnect@lec9f34> is not closed,  
adding it back to the pool entry <database,jdbcurl2> 2014-08-04 15:21:34,334 INFO [InsertThread  
--- 36] - Connection/Statement/Resultset is closed properly. 2014-08-04 15:21:34,334 DEBUG  
[InsertThread --- 36] - Connection released from CertDBImpl.getCertificate method. 2014-08-04  
15:21:34,334 INFO [InsertThread --- 36] - OUT -- CertDBImpl.java - getCertificate - 2014-08-04

15:21:34,334 INFO [InsertThread --- 36] - IN -- CertDBImpl.java - getCertUnitByPkid(pkid) -  
2014-08-04 15:21:34,334 DEBUG [InsertThread --- 36] - Connection Initialized to localnode.  
Connection HashCode:16196072 --Details:Connector(NOT CONNECTED:  
Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:34,334 DEBUG [InsertThread --- 36] -  
Select Query to getCertUnitByPkid :SELECT A.PKID, A.FKCERTIFICATE, A.TKCERTIFICATESERVICE,  
B.NAME UNIT FROM CERTIFICATESERVICECERTIFICATEMAP A, TYPECERTIFICATESERVICE B WHERE  
A.FKCERTIFICATE="4152b36b-002e-68ac-711d-c373fa940779" AND A.TKCERTIFICATESERVICE = B.ENUM 2014-  
08-04 15:21:34,334 DEBUG [InsertThread --- 36] - getConn:  
usePooling[true]connectToLocalDB[true]\_target[0]connectToPubByDefault[false] 2014-08-04  
15:21:34,334 DEBUG [InsertThread --- 36] - Try to get a connection from pool 2014-08-04  
15:21:34,334 DEBUG [InsertThread --- 36] - getting local connection from Pool 2014-08-04  
15:21:34,334 DEBUG [InsertThread --- 36] - Getting connection from connection pool entry  
<database,jdbcurl2> 2014-08-04 15:21:34,334 DEBUG [InsertThread --- 36] - There are currently 2  
connection pool entries 2014-08-04 15:21:34,334 DEBUG [InsertThread --- 36] - Adding connection  
<com.informix.jdbc.IfxSqliConnect@1ec9f34> to connection list 2014-08-04 15:21:34,334 DEBUG  
[InsertThread --- 36] - Marking connection <com.informix.jdbc.IfxSqliConnect@1ec9f34> as used  
2014-08-04 15:21:34,334 DEBUG [InsertThread --- 36] - Got connection from pool 2014-08-04  
15:21:34,337 DEBUG [InsertThread --- 36] - Closing the resultset. 2014-08-04 15:21:34,337 DEBUG  
[InsertThread --- 36] - Closing the connection. Connection HashCode:16196072 --  
Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-04 15:21:34,337 DEBUG  
[InsertThread --- 36] - Attempting to close connection 2014-08-04 15:21:34,337 DEBUG  
[InsertThread --- 36] - Removing connection <database, jdbcurl2> from ConnectionManager list  
2014-08-04 15:21:34,337 DEBUG [InsertThread --- 36] - removeConnectionFromConnectionList() 2014-  
08-04 15:21:34,337 DEBUG [InsertThread --- 36] - Removing connection  
<com.informix.jdbc.IfxSqliConnect@1ec9f34> from connection list 2014-08-04 15:21:34,351 DEBUG  
[InsertThread --- 36] - Connection <com.informix.jdbc.IfxSqliConnect@1ec9f34> is not closed,  
adding it back to the pool entry <database,jdbcurl2> 2014-08-04 15:21:34,351 INFO [InsertThread  
--- 36] - Connection/Statement/Resultset is closed properly. 2014-08-04 15:21:34,351 DEBUG  
[InsertThread --- 36] - Resultset released from CertDBImpl.getCertUnitByPkid method. 2014-08-04  
15:21:34,351 INFO [InsertThread --- 36] - OUT -- CertDBImpl.java - getCertUnitByPkid - 2014-08-  
04 15:21:34,351 INFO [InsertThread --- 36] - UNIT : tomcat-trust 2014-08-04 15:21:34,351 INFO  
[InsertThread --- 36] - CurrentIPAddress : 10.48.46.30 2014-08-04 15:21:34,351 INFO  
[InsertThread --- 36] - RemoteIPAddress : 10.48.46.29 2014-08-04 15:21:34,351 INFO [InsertThread  
--- 36] - OldSerialNo :7a40f8743a793b44fe802b5f3e1e6f36 2014-08-04 15:21:34,351 INFO  
[InsertThread --- 36] - NewSerialNo :7a40f8743a793b44fe802b5f3e1e6f36 2014-08-04 15:21:34,351  
INFO [InsertThread --- 36] - IN -- CertUtil.java - getListFromComaSeperatedStr(..) - 2014-08-04  
15:21:34,351 INFO [InsertThread --- 36] - OUT -- CertUtil.java - getListFromComaSeperatedStr -  
2014-08-04 15:21:34,351 INFO [InsertThread --- 36] - tomcat-trust --- is included unit for CN  
2014-08-04 15:21:34,351 INFO [InsertThread --- 36] - IN -- CertUtil.java -  
loadCertFromString(cert) - 2014-08-04 15:21:34,351 INFO [InsertThread --- 36] - IN --  
RSACryptoEngine.java - loadCertificate(..) - 2014-08-04 15:21:34,351 INFO [InsertThread --- 36]  
- OUT -- RSACryptoEngine.java - loadCertificate - 2014-08-04 15:21:34,351 INFO [InsertThread ---  
36] - OUT -- CertUtil.java - loadCertFromString - 2014-08-04 15:21:34,351 INFO [InsertThread ---  
36] - IN -- CertDBUtil.java - checkDeleteAndImport(unit, dbCert) - 2014-08-04 15:21:34,351 INFO  
[InsertThread --- 36] - DB CertInfo.--SN:162503161730851213217569888696899890998--  
SubjectDN:L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL--GetNotBefore:Mon Aug 04  
15:19:07 CEST 2014--GetNotAfter:Sat Aug 03 15:19:06 CEST 2019 2014-08-04 15:21:34,351 INFO  
[InsertThread --- 36] - loading certificate element named [tomcat-trust] 2014-08-04 15:21:34,351  
INFO [InsertThread --- 36] - determining certificates in group [product-cpi] with type [trust-  
certs] 2014-08-04 15:21:34,352 INFO [InsertThread --- 36] - loading the config file  
[/usr/local/platform/conf/cert-conf.xml] 2014-08-04 15:21:34,353 INFO [InsertThread --- 36] -  
looking for first [trust-certs] in [product-cpi] 2014-08-04 15:21:34,353 INFO [InsertThread ---  
36] - loaded element [tomcat-trust] 2014-08-04 15:21:34,353 INFO [InsertThread --- 36] -  
determining cert dir for [tomcat-trust] 2014-08-04 15:21:34,353 INFO [InsertThread --- 36] -  
looking for first [dir] in [tomcat-trust] 2014-08-04 15:21:34,353 INFO [InsertThread --- 36] -  
getting the value of [dir] 2014-08-04 15:21:34,353 INFO [InsertThread --- 36] - value is  
[/usr/local/platform/.security/tomcat/trust-certs] 2014-08-04 15:21:34,353 INFO [InsertThread --  
- 36] - cert dir is [/usr/local/platform/.security/tomcat/trust-certs] 2014-08-04 15:21:34,354  
INFO [InsertThread --- 36] - [/usr/local/platform/.security/tomcat/trust-  
certs/VeriSign\_Class\_3\_Secure\_Server\_CA\_-\_G3.description] match is false 2014-08-04 15:21:34,354  
INFO [InsertThread --- 36] - [/usr/local/platform/.security/tomcat/trust-  
certs/CUCM861s.description] match is false 2014-08-04 15:21:34,354 INFO [InsertThread --- 36] -  
[/usr/local/platform/.security/tomcat/trust-certs/CUCM9X.description] match is false 2014-08-04  
15:21:34,354 INFO [InsertThread --- 36] - [/usr/local/platform/.security/tomcat/trust-

```

certs/VeriSign_Class_3_Secure_Server_CA_-_G3.pem] match is true 2014-08-04 15:21:34,354 INFO
[InsertThread --- 36] - [/usr/local/platform/.security/tomcat/trust-
certs/VeriSign_Class_3_Secure_Server_CA_-_G3.der] match is true 2014-08-04 15:21:34,354 INFO
[InsertThread --- 36] - [/usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore]
match is false 2014-08-04 15:21:34,354 INFO [InsertThread --- 36] -
[/usr/local/platform/.security/tomcat/trust-certs/CUCM861s.der] match is true 2014-08-04
15:21:34,354 INFO [InsertThread --- 36] - [/usr/local/platform/.security/tomcat/trust-
certs/25ffab9b.0] match is false 2014-08-04 15:21:34,354 INFO [InsertThread --- 36] -
[/usr/local/platform/.security/tomcat/trust-certs/CUCM861.der] match is true 2014-08-04
15:21:34,354 INFO [InsertThread --- 36] - [/usr/local/platform/.security/tomcat/trust-
certs/CUCM861.description] match is false 2014-08-04 15:21:34,354 INFO [InsertThread --- 36] -
[/usr/local/platform/.security/tomcat/trust-certs/7e0370f0.0] match is false 2014-08-04
15:21:34,354 INFO [InsertThread --- 36] - [/usr/local/platform/.security/tomcat/trust-
certs/d0aacffb.0] match is false 2014-08-04 15:21:34,354 INFO [InsertThread --- 36] -
[/usr/local/platform/.security/tomcat/trust-certs/CUCM9X.der] match is true 2014-08-04
15:21:34,354 INFO [InsertThread --- 36] - [/usr/local/platform/.security/tomcat/trust-
certs/101f99a6.0] match is false 2014-08-04 15:21:34,354 INFO [InsertThread --- 36] -
[/usr/local/platform/.security/tomcat/trust-certs/CUCM9X.pem] match is true 2014-08-04
15:21:34,354 INFO [InsertThread --- 36] - [/usr/local/platform/.security/tomcat/trust-
certs/CUCM861.pem] match is true 2014-08-04 15:21:34,354 INFO [InsertThread --- 36] -
[/usr/local/platform/.security/tomcat/trust-certs/CUCM861s.pem] match is true 2014-08-04
15:21:34,355 INFO [InsertThread --- 36] - IN -- RSACryptoEngine.java - loadCertificate(..) -
2014-08-04 15:21:34,355 INFO [InsertThread --- 36] - OUT -- RSACryptoEngine.java -
loadCertificate - 2014-08-04 15:21:34,355 INFO [InsertThread --- 36] - IN --
RSACryptoEngine.java - loadCertificate(..) - 2014-08-04 15:21:34,355 INFO [InsertThread --- 36]
- OUT -- RSACryptoEngine.java - loadCertificate - ## but since it has been checked that the
certificate is already in the filesystem,
## nothing will be added. 2014-08-04 15:21:34,355 DEBUG [InsertThread --- 36] - SUBJECTDN of
DBCert and FileSystemCert compared correctly.. 2014-08-04 15:21:34,355 DEBUG [InsertThread ---
36] - Certificate already exists in FileSystem.. 2014-08-04 15:21:34,355 INFO [InsertThread ---
36] - IN -- RSACryptoEngine.java - loadCertificate(..) - 2014-08-04 15:21:34,355 INFO
[InsertThread --- 36] - OUT -- RSACryptoEngine.java - loadCertificate - 2014-08-04 15:21:34,355
INFO [InsertThread --- 36] - IN -- RSACryptoEngine.java - loadCertificate(..) - 2014-08-04
15:21:34,356 INFO [InsertThread --- 36] - OUT -- RSACryptoEngine.java - loadCertificate - 2014-
08-04 15:21:34,356 INFO [InsertThread --- 36] - OUT -- CertDBUtil.java - checkDeleteAndImport -
2014-08-04 15:21:34,356 INFO [InsertThread --- 36] - tomcat-trust Certificate successfully
updated in trust-store by Change Notification.. 2014-08-04 15:21:34,356 INFO [InsertThread ---
36] - OUT -- CertKeystoreHandler.java - updateIntoKeystore - 2014-08-04 15:21:34,356 DEBUG
[InsertThread --- 36] - InsertThread --- 36 -- END -- 2014-08-04 15:21:34,356 INFO [InsertThread
--- 36] - OUT -- CertKeystoreHandler.java - run -

```

f. 当您当前查看在文件系统级别上时的证书您能验证md5校验和(md5sum)，并且看到这是一样象在发行商节点。

在您能验证同样由的GUI比较序列号。

```

[root@CUCM861s tomcat]# pwd /usr/local/platform/.security/tomcat [root@CUCM861s tomcat]# ls -la
total 40 drwxr-xr-x 5 root root 4096 Apr 4 14:33 . drwxr-xr-x 5 root root 4096 Apr 4 14:33 ..
drwxr-xr-x 2 certbase ccmbase 4096 Aug 2 22:51 certs drwxr-xr-x 2 certbase ccmbase 4096 Aug 2
22:51 keys drwxr-xr-x 2 certbase ccmbase 4096 Aug 4 15:21 trust-certs [root@CUCM861s tomcat]# ls
-la certs total 48 drwxr-xr-x 2 certbase ccmbase 4096 Aug 2 22:51 . drwxr-xr-x 5 root root 4096
Apr 4 14:33 .. -rwxr-xr-x 1 certbase ccmbase 941 Aug 2 22:51 tomcat.der -rwxr-xr-x 1 certbase
ccmbase 64 Aug 2 22:51 tomcat.description -rwxr-xr-x 1 certbase ccmbase 2598 Aug 2 22:51
tomcat.keystore -rwxr-xr-x 1 certbase ccmbase 1330 Aug 2 22:51 tomcat.pem [root@CUCM861s
tomcat]# ls -la trust-certs total 140 drwxr-xr-x 2 certbase ccmbase 4096 Aug 4 15:21 . drwxr-xr-
x 5 root root 4096 Apr 4 14:33 .. lrwxrwxrwx 1 certbase ccmbase 11 Aug 4 15:21 101f99a6.0 ->
CUCM861.pem lrwxrwxrwx 1 certbase ccmbase 10 Aug 4 15:21 25ffab9b.0 -> CUCM9X.pem lrwxrwxrwx 1
certbase ccmbase 42 Aug 4 15:21 7e0370f0.0 -> VeriSign_Class_3_Secure_Server_CA_-_G3.pem -rwxr-
xr-x 1 certbase ccmbase 939 Aug 2 23:36 CUCM861.der -rwxr-xr-x 1 certbase ccmbase 44 Aug 2 23:36
CUCM861.description -rwxr-xr-x 1 certbase ccmbase 1326 Aug 2 23:36 CUCM861.pem -rwxr-xr-x 1
certbase ccmbase 941 Aug 2 22:51 CUCM861s.der -rwxr-xr-x 1 certbase ccmbase 44 Aug 2 22:51
CUCM861s.description -rwxr-xr-x 1 certbase ccmbase 1330 Aug 2 22:51 CUCM861s.pem -rwxr-xr-x 1
certbase ccmbase 953 Aug 4 15:21 CUCM9X.der -rwxr-xr-x 1 certbase ccmbase 44 Aug 4 15:21
CUCM9X.description -rwxr-xr-x 1 certbase ccmbase 1346 Aug 4 15:21 CUCM9X.pem lrwxrwxrwx 1

```

```
certbase ccmbase 12 Aug 4 15:21 d0aacffb.0 -> CUCM861s.pem -rwxr-xr-x 1 certbase ccmbase 4939
Aug 4 15:21 tomcat-trust.keystore -rwxr-xr-x 1 certbase ccmbase 1520 Apr 4 14:33
VeriSign_Class_3_Secure_Server_CA_-_G3.der -rwxr-xr-x 1 certbase ccmbase 44 Apr 4 14:33
VeriSign_Class_3_Secure_Server_CA_-_G3.description -rwxr-xr-x 1 certbase ccmbase 2114 Apr 4
14:33 VeriSign_Class_3_Secure_Server_CA_-_G3.pem [root@CUCM861s tomcat]# md5sum trust-
certs/CUCM9X.pem a0a2e12a42e4bbbf10655c9b299839d9 trust-certs/CUCM9X.pem
```

Show ▾ Settings ▾ Security ▾ Software Upgrades ▾ Services ▾ Help ▾

### Certificate Configuration

Delete Download

#### Status

Status: Ready

#### Certificate Settings

File Name	CUCM9X.pem
Certificate Name	tomcat-trust
Certificate Type	trust-certs
Certificate Group	product-cpi
Description	Trust Certificate

#### Certificate File Data

```
[
  Version: V3
  Serial Number: 162503161730851213217569888696899890998
  Signature Algorithm: SHA256withRSA (1.2.840.113549.1.1.11)
  Issuer Name: L=Krakow, ST=Malopolska, CN=CUCM9X, OU=TAC, O=Cisco Systems, C=PL
  Validity From: Mon Aug 04 15:19:07 CEST 2014
    To: Sat Aug 03 15:19:06 CEST 2019
  Subject Name: L=Krakow, ST=Malopolska, CN=CUCM9X, OU=TAC, O=Cisco Systems, C=PL
  Key: RSA (1.2.840.113549.1.1.1)
  Key value:
3082010a0282010100cb42282338f20e9682fe018c4f0b0951aa32bc0771c1184052fb2ba3b96aafeace37e1d002964115d4f0f6a
2f452ff9c02f09329f5ec978409225eafc5c31606ac05e92d4e230004f43ca1636664b9188b5f43b6e1e4677f7d0578f1fd8e5e5e55
553097808a6954b7c5af72abac9a61ae28ecf13a432a4af520c82a6d881d0ea3d475f6e995cb28b2499878452b972715ba3eed45
3376d884bb7f97050b674d0b12fdb33ba156dcb32a98b9a41d76b4f966bce8f50123c7806e33adbdbd8e611c82623f390e4ee2c
692f9d123c7dbbe83dae6acdbaf674a60b6c1c75372228de3d90a72a6e49138a220b5a88db35304de72f91893e3126745de5f237
65ab910203010001
  Extensions: 3 present
  [
    Extension: KeyUsage (OID.2.5.29.15)
    Critical: false
    Usages: digitalSignature, keyEncipherment, dataEncipherment, keyAgreement, keyCertSign,
  ]
  [
    Extension: ExtKeyUsageSyntax (OID.2.5.29.37)
    Critical: false
    Usage oids: 1.3.6.1.5.5.7.3.1, 1.3.6.1.5.5.7.3.2, 1.3.6.1.5.5.7.3.5,
  ]
]
```

## 4.B. 删除Tomcat托拉斯证书

在第二个场景您将删除在4.A部分上传的Tomcat托拉斯证书。

当请分析此示例时您需要在设计语句之下记住：

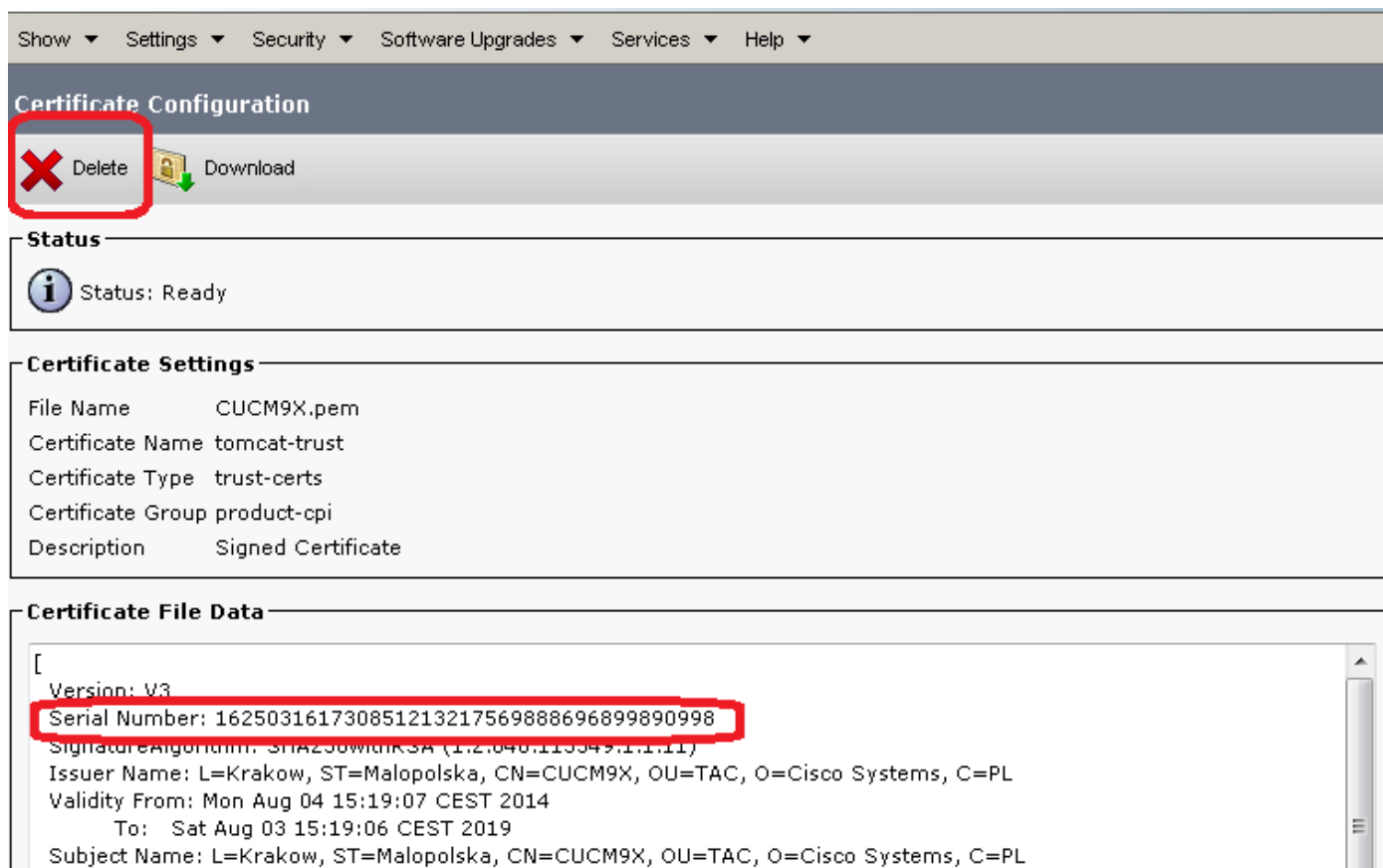
“修改提示服务不会传播一证书的删除从Tomcat节点的信任存储的对其他。这暗示一证书的删除从Tomcat信任的从一个节点不自动地删除从其他节点的同一证书。此行为实现保证管理员将有能力从委托在其他节点的应用程序删除某一节点由于安全考虑”。

上述为Tomcat信任认证类型是仅有效。

删除操作在步骤之下包括：

- a.删除从CM页的证书。
  - b.证书文件从文件系统删除
  - c. certCN在发布服务器和用户启动。操作没有由他们两个要求。
- 删除从用户节点的D.同一Tomcat托拉斯证书

### a.从CM页发起的删除操作



Cert从文件系统和对应的行删除在也删除的数据库。证书没有从CERTIFICATE表删除。在CM日志(线型注释请跟随此)：

```
2014-08-19 23:25:10,714 INFO [main] - log4j configuration successful.
2014-08-19 23:25:10,720 INFO [main] - IN -- CertMgr.java - mainInternal(args) -
2014-08-19 23:25:10,721 INFO [main] - decode

## delete operation is invoked here 2014-08-19 23:25:10,722 INFO [main] - op:delete 2014-08-19
23:25:10,722 INFO [main] - unit:tomcat-trust 2014-08-19 23:25:10,722 INFO [main] - cert-
dir:%2Fusr%2Flocal%2Fplatform%2F.security%2Ftomcat%2Ftrust-certs%2FCUCM9X.pem 2014-08-19
23:25:10,722 INFO [main] - key-dir:%2Fusr%2Flocal%2Fplatform%2F.security%2Ftomcat%2Fkeys 2014-
08-19 23:25:10,722 INFO [main] - logfile:%2Fvar%2Flog%2Factive%2Fplatform%2Flog%2Fcert-mgmt.log
2014-08-19 23:25:10,722 INFO [main] -
resultfile:%2Fvar%2Flog%2Factive%2Fplatform%2Flog%2Fcertde-info.xml 2014-08-19 23:25:10,722 INFO
[main] - type:trust-certs 2014-08-19 23:25:10,749 INFO [main] - Parsed information 2014-08-19
23:25:10,749 INFO [main] - OrgName: CISCO 2014-08-19 23:25:10,749 INFO [main] - OrgUnit: TAC
2014-08-19 23:25:10,749 INFO [main] - Location: KRAKOW 2014-08-19 23:25:10,749 INFO [main] -
Country: PL 2014-08-19 23:25:10,749 INFO [main] - State: MALOPOLSKA 2014-08-19 23:25:10,749 INFO
[main] - Hostname: CUCM861 2014-08-19 23:25:10,750 INFO [main] - AlternateHostname: null 2014-
08-19 23:25:10,750 INFO [main] - Domain Name: 2014-08-19 23:25:10,750 INFO [main] - IPAddress:
10.48.46.29 2014-08-19 23:25:10,751 INFO [main] - In parseXML() 2014-08-19 23:25:10,761 INFO
[main] - FQDN Name retrived by InetAddress : CUCM861 2014-08-19 23:25:10,761 INFO [main] - CN:
```



CUCM861 2014-08-19 23:25:10,761 INFO [main] - Temp before mod is 2014-08-19 23:25:10,761 INFO [main] - Temp afer mod is TAC 2014-08-19 23:25:10,761 INFO [main] - Temp in else is TAC 2014-08-19 23:25:10,761 INFO [main] - Temp before mod is 2014-08-19 23:25:10,761 INFO [main] - Temp afer mod is TAC 2014-08-19 23:25:10,761 INFO [main] - Temp in else is TAC 2014-08-19 23:25:10,762 INFO [main] - OuFields are TAC 2014-08-19 23:25:10,762 DEBUG [main] - Field after encoding: TAC 2014-08-19 23:25:10,762 DEBUG [main] - Field after encoding: CISCO 2014-08-19 23:25:10,762 DEBUG [main] - Field after encoding: KRAKOW 2014-08-19 23:25:10,762 DEBUG [main] - Field after encoding: MALOPOLSKA 2014-08-19 23:25:10,762 DEBUG [main] - Field after encoding: PL 2014-08-19 23:25:10,765 INFO [main] - OU field is :TAC 2014-08-19 23:25:10,765 INFO [main] - SubjectDN :: CN=CUCM861,OU=TAC,O=CISCO,L=KRAKOW,ST=MALOPOLSKA,C=PL 2014-08-19 23:25:10,765 INFO [main] - IN - CertMgr.java - getCertMgrObj(unit) - tomcat-trust 2014-08-19 23:25:10,774 INFO [main] - OUT -- CertMgr.java - getCertMgrObj - com.cisco.cpi.certMgmt.manager.TomcatCertMgr@92bbba 2014-08-19 23:25:10,774 INFO [main] - Dummy loadProperties 2014-08-19 23:25:10,774 INFO [main] - IN -- CertMgr.java - doOp(info) - **## details about the certificate that will be deleted** 2014-08-19 23:25:10,774 INFO [main] - IN -- DefaultCertMgr.java - deleteCert(info) - decode: true op: delete unit: tomcat-trust keystoreUnit:tomcat-trust logFile: /var/log/active/platform/log/cert-mgmt.log resultFile: /var/log/active/platform/log/certde-info.xml keyDir: /usr/local/platform/.security/tomcat/keys certDir: /usr/local/platform/.security/tomcat/trust-certs/CUCM9X.pem srcCert: null type: trust-certs rootCACert: null trustDir: null DNAME: CN=CUCM861,OU=TAC,O=CISCO,L=KRAKOW,ST=MALOPOLSKA,C=PL description:null isDBInsert:true **## certificate file name** 2014-08-19 23:25:10,775 INFO [main] - parsed filename: 'CUCM9X.pem' 2014-08-19 23:25:10,775 DEBUG [main] - filename: 'CUCM9X.pem' 2014-08-19 23:25:10,775 DEBUG [main] - fileRoot: 'CUCM9X' 2014-08-19 23:25:10,775 INFO [main] - IN -- DefaultCertMgr.java - deleteDERandPEM(filenameRoot, parentDir, info) - **## it will remove two files: CUCM9X.DER and CUCM9X.PEM** 2014-08-19 23:25:10,775 DEBUG [main] - ParentDir:/usr/local/platform/.security/tomcat/trust-certsFileName.(DER/PEM):CUCM9X 2014-08-19 23:25:11,100 DEBUG [main] - Loading RSA providers explicitly... 2014-08-19 23:25:12,486 DEBUG [main] - RSA providers are loaded explicitly... 2014-08-19 23:25:12,487 DEBUG [main] - New security.provider.1=JsafeJCE 2014-08-19 23:25:12,487 DEBUG [main] - New security.provider.2=RsaJsse 2014-08-19 23:25:12,487 DEBUG [main] - New security.provider.3=BC 2014-08-19 23:25:12,487 DEBUG [main] - New security.provider.4=SUN 2014-08-19 23:25:12,487 DEBUG [main] - New security.provider.5=SunRsaSign 2014-08-19 23:25:12,487 DEBUG [main] - New security.provider.6=SunJSSE 2014-08-19 23:25:12,487 DEBUG [main] - New security.provider.7=SunJCE 2014-08-19 23:25:12,487 DEBUG [main] - New security.provider.8=SunJGSS 2014-08-19 23:25:12,487 DEBUG [main] - New security.provider.9=SunSASL 2014-08-19 23:25:12,487 DEBUG [main] - New security.provider.10=XMLDSig 2014-08-19 23:25:12,487 DEBUG [main] - New security.provider.11=SunPCSC 2014-08-19 23:25:12,487 INFO [main] - IN -- RSACryptoEngine.java - loadCertificate(..) - 2014-08-19 23:25:12,802 INFO [main] - OUT -- RSACryptoEngine.java - loadCertificate - 2014-08-19 23:25:12,826 INFO [main] - IN -- CertUtil.java - populateCertInfo(cert, opInfo, certFilePemLocation) - 2014-08-19 23:25:12,827 INFO [main] - IN -- CertUtil.java - getHostName(..) - 2014-08-19 23:25:12,827 INFO [main] - OUT -- CertUtil.java - getHostName - CUCM861 2014-08-19 23:25:12,830 INFO [main] - IN -- CryptoUtil.java - saveAsPEM(..) - 2014-08-19 23:25:12,834 INFO [main] - OUT -- CryptoUtil.java - saveAsPEM - 2014-08-19 23:25:12,834 INFO [main] - OUT -- CertUtil.java - populateCertInfo - **## certificate on the filesystem level has been deleted. Now the same must be done on the ## DB level** 2014-08-19 23:25:12,835 INFO [main] - IN -- CertDBAction.java - deleteCertificateInDB(certInfo) - 2014-08-19 23:25:12,835 INFO [main] - DBParameters ... PKID : null CN : L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL serialNo : 7a40f8743a793b44fe802b5f3ele6f36 hostName : CUCM861 issuerName : L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL Certificate : Not Printing huge Certificate String.. IPV4Address : 10.48.46.29 IPV6Address : TimeToLive : NULL UNIT : tomcat-trust TYPE : trust-certs ROLE : null RoleMoniker : null RoleEnum :null SERVICE : null ServiceMoniker : null ServiceEnum :0 2014-08-19 23:25:12,835 INFO [main] - DB - Certifciate Store Plugin Handler is :com.cisco.ccm.certmgmt.db.CertDBImpl 2014-08-19 23:25:12,859 INFO [main] - IN -- CertDBImpl.java - deleteCertificate(certInfo) - 2014-08-19 23:25:13,024 DEBUG [main] - Connection Initialized to localnode. Connection HashCode:14098944 -- Details:Connector(NOT CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-19 23:25:13,024 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[true]\_target[0]connectToPubByDefault[false] 2014-08-19 23:25:13,026 DEBUG [main] - Try to get a connection from pool 2014-08-19 23:25:13,026 DEBUG [main] - getting local connection from Pool 2014-08-19 23:25:13,029 DEBUG [main] - Getting connection from connection pool entry <database,jdbcurl2> 2014-08-19 23:25:13,029 DEBUG [main] - There are currently 0 connection pool entries 2014-08-19 23:25:13,034 DEBUG [main] - Checking if

connection limit has been reached for database 2014-08-19 23:25:13,035 DEBUG [main] - Connecting to publisher so max number of connections allowed is 100 2014-08-19 23:25:13,035 DEBUG [main] - Number of connections in use is 0 2014-08-19 23:25:13,035 DEBUG [main] - There is currently 1 connection pool entry 2014-08-19 23:25:13,035 DEBUG [main] - Number of available connections in pool: 0 2014-08-19 23:25:13,406 DEBUG [main] - Adding connection <com.informix.jdbc.IfxSqlConnect@196e136> to connection list 2014-08-19 23:25:13,407 DEBUG [main] - Marking connection <com.informix.jdbc.IfxSqlConnect@196e136> as used 2014-08-19 23:25:13,407 DEBUG [main] - Got connection from pool 2014-08-19 23:25:13,412 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[true]\_target[0]connectToPubByDefault[false] 2014-08-19 23:25:13,418 DEBUG [main] - Closing the resultset. 2014-08-19 23:25:13,419 DEBUG [main] - Closing the connection. Connection HashCode:14098944 --Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-19 23:25:13,419 DEBUG [main] - Attempting to close connection 2014-08-19 23:25:13,419 DEBUG [main] - Removing connection <database, jdbcurl2> from ConnectionManager list 2014-08-19 23:25:13,419 DEBUG [main] - removeConnectionFromConnectionList() 2014-08-19 23:25:13,431 DEBUG [main] - Removing connection <com.informix.jdbc.IfxSqlConnect@196e136> from connection list 2014-08-19 23:25:13,442 DEBUG [main] - Connection <com.informix.jdbc.IfxSqlConnect@196e136> is not closed, adding it back to the pool entry <database, jdbcurl2> 2014-08-19 23:25:13,442 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-19 23:25:13,443 INFO [main] - TYPETRUSTROLEMAP ::{TRUST\_ROLE\_DATA\_SERVICE=24, TRUST\_ROLE\_PROVISIONING\_SERVICE=23, TRUST\_ROLE\_SERVICEABILITY=27, TRUST\_ROLES\_CALLMANAGER\_TFTP=2, PHONE\_TRUST\_ROLES\_FIREWALL=6, ROLE\_APPLICATION\_SERVER=7, TRUST\_ROLES\_SAST=0, ROLE\_SIGNALING\_CALL\_CONTROL=22, TRUST\_ROLES\_CALLMANAGER=1, TRUST\_ROLES\_UNKNOWN=255, TRUST\_ROLE\_NETWORK\_ELEMENT=25, TRUST\_ROLES\_SRST=5, ROLE\_CERTIFICATE\_AUTHORITY=20, TRUST\_ROLE\_VPN=26, TRUST\_ROLES\_CAPF=4, TRUST\_ROLES\_TFTP=3, ROLE\_AUTHENTICATION\_AUTHORIZATION=21} 2014-08-19 23:25:13,443 INFO [main] - TYPESERVICEROLEMAP ::{Phone-VPN-trust=2, CallManager=3, Phone-CTL-trust=15, tomcat-trust=6, TVS=11, ipsec-trust=8, Phone-trust=1, Phone-SAST-trust=14, tomcat=5, userlicensing-trust=16, CAPF=9, ipsec=7, CAPF-trust=10, CallManager-trust=4, TVS-trust=12, directory-trust=13} 2014-08-19 23:25:13,443 INFO [main] - unitRoleMap ::{Phone-VPN-trust=[TRUST\_ROLE\_VPN], CallManager=[TRUST\_ROLES\_CALLMANAGER\_TFTP, TRUST\_ROLES\_SAST], Phone-CTL-trust=[ROLE\_APPLICATION\_SERVER], tomcat-trust=[ROLE\_APPLICATION\_SERVER], TVS=[ROLE\_AUTHENTICATION\_AUTHORIZATION], ipsec-trust=[], Phone-trust=[ROLE\_APPLICATION\_SERVER], Phone-SAST-trust=[TRUST\_ROLES\_SAST, TRUST\_ROLES\_TFTP], tomcat=[ROLE\_APPLICATION\_SERVER], userlicensing-trust=[], CAPF=[TRUST\_ROLES\_CAPF], ipsec=[ROLE\_APPLICATION\_SERVER], CAPF-trust=[], CallManager-trust=[], TVS-trust=[], directory-trust=[]} 2014-08-19 23:25:13,443 INFO [main] - commonTrustStoreMap ::{} 2014-08-19 23:25:13,446 DEBUG [main] - Connection Initialized to Publisher. Connection HashCode:24762452 --Details:Connector(NOT CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-19 23:25:13,446 INFO [main] - IN -- CertDBImpl.java - getPkidOfCertificate(hash, serverName, con) - **## looking for PKID of the certificate that should be deleted. This is done basing on the ## certificate hash** 2014-08-19 23:25:13,447 DEBUG [main] - GetPKID Query :SELECT A.PKID FROM CERTIFICATE A, CERTIFICATEHASHMAP B WHERE A.PKID=B.FKCERTIFICATE AND B.HASH = "a9Ww/WeDmBnnHHncUCqOGCz409g=" 2014-08-19 23:25:13,447 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[1]connectToPubByDefault[true] 2014-08-19 23:25:13,447 DEBUG [main] - Try to get a connection from pool 2014-08-19 23:25:13,447 DEBUG [main] - Getting connection from connection pool entry <database, jdbcurl2> 2014-08-19 23:25:13,447 DEBUG [main] - There is currently 1 connection pool entry 2014-08-19 23:25:13,447 DEBUG [main] - Adding connection <com.informix.jdbc.IfxSqlConnect@196e136> to connection list 2014-08-19 23:25:13,447 DEBUG [main] - Marking connection <com.informix.jdbc.IfxSqlConnect@196e136> as used 2014-08-19 23:25:13,447 DEBUG [main] - Got connection from pool 2014-08-19 23:25:13,462 DEBUG [main] - Closing the resultset. 2014-08-19 23:25:13,463 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-19 23:25:13,463 INFO [main] - OUT -- CertDBImpl.java - getPkidOfCertificate - 2014-08-19 23:25:13,463 DEBUG [main] - Closing the connection. Connection HashCode:24762452 --Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-19 23:25:13,463 DEBUG [main] - Attempting to close connection 2014-08-19 23:25:13,463 DEBUG [main] - Removing connection <database, jdbcurl2> from ConnectionManager list 2014-08-19 23:25:13,463 DEBUG [main] - removeConnectionFromConnectionList() 2014-08-19 23:25:13,463 DEBUG [main] - Removing connection <com.informix.jdbc.IfxSqlConnect@196e136> from connection list 2014-08-19 23:25:13,463 DEBUG [main] - Connection <com.informix.jdbc.IfxSqlConnect@196e136> is not closed, adding it back to the pool entry <database, jdbcurl2> 2014-08-19 23:25:13,464 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-19 23:25:13,465 DEBUG [main] - Connection Initialized to Publisher. Connection HashCode:12085572 --Details:Connector(NOT CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-19 23:25:13,465 DEBUG [main] - getConn:

```
usePooling[true]connectToLocalDB[false]_target[1]connectToPubByDefault[true] 2014-08-19
23:25:13,465 DEBUG [main] - Try to get a connection from pool 2014-08-19 23:25:13,465 DEBUG
[main] - Getting connection from connection pool entry <database,jdbcurl2> 2014-08-19
23:25:13,466 DEBUG [main] - There is currently 1 connection pool entry 2014-08-19 23:25:13,466
DEBUG [main] - Adding connection <com.informix.jdbc.IfxSqlConnect@196e136> to connection list
2014-08-19 23:25:13,466 DEBUG [main] - Marking connection
<com.informix.jdbc.IfxSqlConnect@196e136> as used 2014-08-19 23:25:13,466 DEBUG [main] - Got
connection from pool 2014-08-19 23:25:13,467 INFO [main] - IN -- CertDBImpl.java -
deleteCertFromCertSrvCertMap(con, serialNo, subjectName, serviceEnum) - ## removing association
for our certificate from CERTIFICATESERVICECERTIFICATEMAP table
## first 2014-08-19 23:25:13,467 DEBUG [main] - Delete query of CERTIFICATESERVICECERTIFICATEMAP
:DELETE FROM CERTIFICATESERVICECERTIFICATEMAP WHERE TKCERTIFICATESERVICE = "6" AND FKCERTIFICATE
= "4152b36b-002e-68ac-711d-c373fa940779" 2014-08-19 23:25:13,467 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[1]connectToPubByDefault[true] 2014-08-19
23:25:13,561 INFO [main] - OUT -- CertDBImpl.java - deleteCertFromCertSrvCertMap - 2014-08-19
23:25:13,561 INFO [main] - IN -- CertDBImpl.java - deleteCertFromCertProcessNodeMap(con,
certInfo) - ## corresponding entry is being deleted from CERTIFICATEPROCESSNODEMAP table 2014-
08-19 23:25:13,562 DEBUG [main] - Delete query of CERTIFICATEPROCESSNODEMAP :DELETE FROM
CERTIFICATEPROCESSNODEMAP WHERE FKCERTIFICATE="4152b36b-002e-68ac-711d-c373fa940779" AND
SERVERNAME = "CUCM861" 2014-08-19 23:25:13,562 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-19
23:25:13,608 INFO [main] - OUT -- CertDBImpl.java - deleteCertFromCertProcessNodeMap - 2014-08-
19 23:25:13,609 DEBUG [main] - Certificate to be deleted UNIT: tomcat-trust :: RoleMoniker
:ROLE_APPLICATION_SERVER :: RoleEnum :7 :: ServiceEnum :6 2014-08-19 23:25:13,609 INFO [main] -
IN -- CertDBImpl.java - checkMultipleUnitForSameRole(con, roleMoniker, unit, certInfo) - 2014-
08-19 23:25:13,609 DEBUG [main] - checkMultipleUnitForSameRole : SELECT PKID,FKCERTIFICATE,
TKCERTIFICATESERVICE,NAME UNIT FROM CERTIFICATESERVICECERTIFICATEMAP,TYPECERTIFICATESERVICE
WHERE ENUM=TKCERTIFICATESERVICE AND FKCERTIFICATE = "4152b36b-002e-68ac-711d-c373fa940779" AND
NAME != "tomcat-trust" 2014-08-19 23:25:13,609 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-19
23:25:13,646 DEBUG [main] - Closing the resultset. 2014-08-19 23:25:13,654 INFO [main] -
Connection/Statement/Resultset is closed properly. 2014-08-19 23:25:13,654 INFO [main] - OUT --
CertDBImpl.java - checkMultipleUnitForSameRole - 2014-08-19 23:25:13,654 INFO [main] - IN --
CertDBImpl.java - deleteCertFromTypeTrustRole(con, certInfo, roleEnum) - ## and the same for
CERTIFICATETRUSTROLEMAP map 2014-08-19 23:25:13,654 DEBUG [main] - Delete query of
CERTIFICATETRUSTROLEMAP :DELETE FROM CERTIFICATETRUSTROLEMAP WHERE TKTRUSTROLE = "7" AND
FKCERTIFICATE = "4152b36b-002e-68ac-711d-c373fa940779" 2014-08-19 23:25:13,654 DEBUG [main] -
getConn: usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-19
23:25:13,680 INFO [main] - OUT -- CertDBImpl.java - deleteCertFromTypeTrustRole - 2014-08-19
23:25:13,680 INFO [main] - IN -- CertDBImpl.java - checkMultipleCertForSrv(pkid, con) - 2014-08-
19 23:25:13,680 DEBUG [main] - checkMultipleCertForSrv : SELECT PKID,FKCERTIFICATE,
TKCERTIFICATESERVICE FROM CERTIFICATESERVICECERTIFICATEMAP WHERE FKCERTIFICATE = "4152b36b-002e-
68ac-711d-c373fa940779" 2014-08-19 23:25:13,680 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-19
23:25:13,682 DEBUG [main] - Closing the resultset. 2014-08-19 23:25:13,682 INFO [main] -
Connection/Statement/Resultset is closed properly. 2014-08-19 23:25:13,682 INFO [main] - OUT --
CertDBImpl.java - checkMultipleCertForSrv - 2014-08-19 23:25:13,682 INFO [main] - IN --
CertDBImpl.java - checkMultipleCertForRole(certInfo, con) - 2014-08-19 23:25:13,682 DEBUG [main]
- checkMultipleCertForRole : SELECT PKID,FKCERTIFICATE, TKTRUSTROLE FROM CERTIFICATETRUSTROLEMAP
WHERE FKCERTIFICATE = "4152b36b-002e-68ac-711d-c373fa940779" 2014-08-19 23:25:13,683 DEBUG
[main] - getConn: usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true]
2014-08-19 23:25:13,684 DEBUG [main] - Closing the resultset. 2014-08-19 23:25:13,684 INFO
[main] - Connection/Statement/Resultset is closed properly. 2014-08-19 23:25:13,684 INFO [main]
- OUT -- CertDBImpl.java - checkMultipleCertForRole - 2014-08-19 23:25:13,684 INFO [main] - IN -
- CertDBImpl.java - checkMultipleCertForProcessnode(certInfo, con) - 2014-08-19 23:25:13,684
DEBUG [main] - checkMultipleCertForProcessnode : SELECT
PKID,FKCERTIFICATE,FKPROCESSNODE,SERVERNAME FROM CERTIFICATEPROCESSNODEMAP WHERE
FKCERTIFICATE='4152b36b-002e-68ac-711d-c373fa940779' 2014-08-19 23:25:13,684 DEBUG [main] -
getConn: usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-19
23:25:13,687 DEBUG [main] - Closing the resultset. 2014-08-19 23:25:13,687 INFO [main] -
Connection/Statement/Resultset is closed properly. 2014-08-19 23:25:13,687 INFO [main] - OUT --
CertDBImpl.java - checkMultipleCertForProcessnode - ## normally you would expect that the
certificate would be removed from CERTIFICATE table.
## This will not happen since it is possible that some of the nodes in the cluster will
```

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## have specific tomcat-trust certificate in the trust store but some not. This is in
## compliance with the design. Since you remove the certificate only from publisher
## (by removing coresponding entries from 3 tables above) node it still be used
## by subscriber node. That is why the certificate will not be removed from CERTIFICATE
## TABLE 2014-08-19 23:25:13,687 DEBUG [main] - DELETE FLAG :: isSrvMap=false :: isRoleMap=false
:: isProcessnodeMap=true 2014-08-19 23:25:13,687 DEBUG [main] - The certificate is being used by
either different role or unit or other node. So no need to delte from certificate table. 2014-
08-19 23:25:13,690 DEBUG [main] - Connection committed for deleteCertificate.. 2014-08-19
23:25:13,690 DEBUG [main] - Closing the connection. Connection HashCode:12085572 --
Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-19 23:25:13,690 DEBUG
[main] - Attempting to close connection 2014-08-19 23:25:13,690 DEBUG [main] - Removing
connection <database, jdbcurl2> from ConnectionManager list 2014-08-19 23:25:13,690 DEBUG [main]
- removeConnectionFromConnectionList() 2014-08-19 23:25:13,690 DEBUG [main] - Removing
connection <com.informix.jdbc.IfxSqlConnect@196e136> from connection list 2014-08-19
23:25:13,690 DEBUG [main] - Connection <com.informix.jdbc.IfxSqlConnect@196e136> is not closed,
adding it back to the pool entry <database,jdbcurl2> 2014-08-19 23:25:13,691 INFO [main] -
Connection/Statement/Resultset is closed properly. 2014-08-19 23:25:13,691 DEBUG [main] -
Connection released from CertDBImpl.deleteCertificate method. 2014-08-19 23:25:13,691 INFO
[main] - OUT -- CertDBImpl.java - deleteCertificate - 2014-08-19 23:25:13,691 INFO [main] - OUT
-- CertDBAction.java - deleteCertificateInDB - 2014-08-19 23:25:13,691 INFO [main] - OUT --
DefaultCertMgr.java - deleteDERandPEM - 2014-08-19 23:25:13,691 DEBUG [main] - deleteDERandPEM:
sCertDir = /usr/local/platform/.security/tomcat/trust-certs --- sAlias = CUCM9X ## removing the
certificate from keystore on this node 2014-08-19 23:25:13,691 INFO [main] - IN --
TomcatCertMgr.java - removeFromKeyStore(..) - 2014-08-19 23:25:13,691 INFO [main] - IN --
RSACryptoEngine.java - removeFromKeyStore(keystoreFile, keystorePass, alias) - 2014-08-19
23:25:13,691 INFO [main] - IN -- RSACryptoEngine.java - loadKeyStore(keystoreFile, keystorePass)
- 2014-08-19 23:25:13,895 INFO [main] - OUT -- RSACryptoEngine.java - loadKeyStore - 2014-08-19
23:25:13,922 DEBUG [main] - Removing certificate from keystore : CUCM9X 2014-08-19 23:25:13,923
DEBUG [main] - Size of the keystore after delete is : 3 2014-08-19 23:25:13,923 INFO [main] -
OUT -- RSACryptoEngine.java - removeFromKeyStore - 2014-08-19 23:25:13,923 INFO [main] - OUT --
TomcatCertMgr.java - removeFromKeyStore - 2014-08-19 23:25:13,924 INFO [main] - trustdir
::/usr/local/platform/.security/tomcat/trust-certs 2014-08-19 23:25:13,924 INFO [main] - IN --
Util.java - sysExec(exe, args) - 2014-08-19 23:25:13,924 DEBUG [main] - Executing command from
Util.sysExec : python /usr/local/platform/bin/c_rehash.py
/usr/local/platform/.security/tomcat/trust-certs 2014-08-19 23:25:13,940 DEBUG [Finalizer] -
Attempting to close connection 2014-08-19 23:25:13,940 DEBUG [Finalizer] - Connection already
closed or never open 2014-08-19 23:25:13,940 DEBUG [Finalizer] - Attempting to close connection
2014-08-19 23:25:13,940 DEBUG [Finalizer] - Connection already closed or never open 2014-08-19
23:25:13,962 DEBUG [Finalizer] - Attempting to close connection 2014-08-19 23:25:13,962 DEBUG
[Finalizer] - Connection already closed or never open 2014-08-19 23:25:14,203 INFO [main] - OUT
-- Util.java - sysExec - ## setting/updating the rights and the ownership of the files in trust
store (nothing will
## be changed since you just removed two cert files + description file, this is just
## standard procedure) 2014-08-19 23:25:14,203 INFO [main] - IN -- DefaultCertMgr.java -
setOwnershipAndPermissions(file) - 2014-08-19 23:25:14,203 DEBUG [main] -
setOwnershipAndPermissions : trust-certs 2014-08-19 23:25:14,203 DEBUG [main] - Changing
ownership of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-19 23:25:14,204
INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-19 23:25:14,204 DEBUG [main] -
Executing command from Util.sysExec : /bin/chown -R certbase
/usr/local/platform/.security/tomcat/trust-certs 2014-08-19 23:25:14,224 INFO [main] - OUT --
Util.java - sysExec - 2014-08-19 23:25:14,224 DEBUG [main] - Changing group ownership of file
'/usr/local/platform/.security/tomcat/trust-certs' 2014-08-19 23:25:14,224 INFO [main] - IN --
Util.java - sysExec(exe, args) - 2014-08-19 23:25:14,224 DEBUG [main] - Executing command from
Util.sysExec : /bin/chgrp -R ccmbase /usr/local/platform/.security/tomcat/trust-certs 2014-08-19
23:25:14,236 INFO [main] - OUT -- Util.java - sysExec - 2014-08-19 23:25:14,237 DEBUG [main] -
Changing mode of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-19 23:25:14,237
INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-19 23:25:14,237 DEBUG [main] -
Executing command from Util.sysExec : /bin/chmod -R 755
/usr/local/platform/.security/tomcat/trust-certs 2014-08-19 23:25:14,239 INFO [main] - OUT --
Util.java - sysExec - 2014-08-19 23:25:14,240 INFO [main] - OUT -- DefaultCertMgr.java -
setOwnershipAndPermissions - 2014-08-19 23:25:14,240 INFO [main] - OUT -- DefaultCertMgr.java -
deleteCert - 2014-08-19 23:25:14,240 INFO [main] - IN -- CertMgr.java - logResult(result, desc,
resultFile) - 2014-08-19 23:25:14,240 INFO [main] - CertMgmt Operation Result : null 2014-08-19
23:25:14,241 INFO [main] - OUT -- CertMgr.java - logResult - 2014-08-19 23:25:14,241 INFO [main]
```

```
- OUT -- CertMgr.java - doOp - 2014-08-19 23:25:14,241 INFO [main] - OUT -- CertMgr.java - mainIntenal -
```

**b.要确认操作是成功的在文件系统级别上，请检查Tomcat信任目录：**

```
[root@CUCM861 trust-certs]# ls -la
total 108
drwxr-xr-x 2 certbase ccmbase 4096 Aug 19 23:25 .
drwxr-xr-x 5 root      root    4096 Apr  4 12:47 ..
lrwxrwxrwx 1 certbase ccmbase  11 Aug 19 23:25 101f99a6.0 -> CUCM861.pem
lrwxrwxrwx 1 certbase ccmbase  42 Aug 19 23:25 7e0370f0.0 ->
VeriSign_Class_3_Secure_Server_CA_-_G3.pem
-rwxr-xr-x 1 certbase ccmbase  939 Aug  2 23:36 CUCM861.der
-rwxr-xr-x 1 certbase ccmbase   44 Aug  2 23:36 CUCM861.description
-rwxr-xr-x 1 certbase ccmbase 1326 Aug  2 23:36 CUCM861.pem
-rwxr-xr-x 1 certbase ccmbase  941 Aug  2 22:51 CUCM861s.der
-rwxr-xr-x 1 certbase ccmbase   44 Aug  2 22:51 CUCM861s.description
-rwxr-xr-x 1 certbase ccmbase 1330 Aug  2 22:51 CUCM861s.pem
lrwxrwxrwx 1 certbase ccmbase  12 Aug 19 23:25 d0aacffb.0 -> CUCM861s.pem
-rwxr-xr-x 1 certbase ccmbase 3907 Aug 19 23:25 tomcat-trust.keystore
-rwxr-xr-x 1 certbase ccmbase 1520 Apr  4 12:47 VeriSign_Class_3_Secure_Server_CA_-_G3.der
-rwxr-xr-x 1 certbase ccmbase   44 Apr  4 12:47 VeriSign_Class_3_Secure_Server_CA_-_
_G3.description
-rwxr-xr-x 1 certbase ccmbase 2114 Apr  4 12:47 VeriSign_Class_3_Secure_Server_CA_-_G3.pem
```

您能看到3个文件删除(CUCM9X.pem、CUCM9X.der，CUCM9X.description)和符号链接。

**c.在发布服务器和用户的CertCN服务将通知关于在表 CERTIFICATESERVICECERTIFICATEMAP上的变化由DB修改提示机制。**

从发行商节点：

```
2014-08-19 23:25:13,811 INFO [Thread-5] - IN - process. changeData &colon;
2014-08-19 23:25:13,812 INFO [Thread-5] - Inside CERTIFICATESERVICECERTIFICATEMAP - I option..
2014-08-19 23:25:13,812 DEBUG [Thread-5] - Updated Data in CERTIFICATESERVICECERTIFICATEMAP
::<msg><type>DBL</type><table>certificateservicecertificatemap</table><tableid>44</tableid><action>D</action><time>1408483513</time><old><cdrserver>2</cdrserver><cdftime>1407158487</cdftime><pkid>798ff6e1-e1d6-42e5-a4e6-30d9d7360d6d</pkid><fkcertificate>4152b36b-002e-68ac-711d-c373fa940779</fkcertificate><tkcertificateservice>6</tkcertificateservice><ifx_replcheck>6043699681953972226</ifx_replcheck></old></msg>
2014-08-19 23:25:18,818 INFO [Thread-5] - OUT - process.
```

因为所有由CM API，是完成什么都在发行商节点不需要完成。您在certCN能观察的同样注册用户。

**D.删除在节点几乎执行操作的用户的同一Tomcat托拉斯证书和一样在发行商节点被观察了。唯一的差异是最后一步删除从证书表的条目。从CM (包含更改)仅的零件日志：**

```
2014-08-21 11:59:35,383 INFO [main] - OUT -- CertDBImpl.java - checkMultipleCertForProcessnode -
2014-08-21 11:59:35,383 DEBUG [main] - DELETE FLAG :: isSrvMap=false :: isRoleMap=false ::
isProcessnodeMap=false
2014-08-21 11:59:35,383 INFO [main] - IN -- CertDBImpl.java - deleteCertificateBySerialNo(con,
certInfo) -
```

```
## certificate is removed from CERTIFICATE table 2014-08-21 11:59:35,383 DEBUG [main] - Delete
query of CERTIFICATE :DELETE FROM CERTIFICATE WHERE PKID = "4152b36b-002e-68ac-711d-
c373fa940779" 2014-08-21 11:59:35,383 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[1]connectToPubByDefault[true] 2014-08-21
11:59:35,596 INFO [main] - OUT -- CertDBImpl.java - deleteCertificateBySerialNo - 2014-08-21
11:59:35,598 DEBUG [main] - Connection committed for deleteCertificate.. 2014-08-21 11:59:35,598
DEBUG [main] - Closing the connection. Connection HashCode:6923467 --
Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;)
```

再次certCN将通知关于在CERTIFICATESERVICECERTIFICATEMAP表上的变化在两节点。因为

所有工作由CM，完成操作不会由certCN完成。

#### 4.C. 在发行商节点的再生Tomcat证书

在第三个方案中您查看tomcat.pem重新生成进程。

您在发行商节点和下查看能重新生成此更改如何传播对第二个节点。




此操作在步骤之下包括：

- a.重新生成操作启动在CM页下。
- b.上述触发生成一新的Tomcat证书并且放它到文件系统
- c.新建的Tomcat证书插入到DB (旧有一个将覆盖)由CM。此信息在DB复制将复制。
- D.旧有Tomcat托拉斯证书从文件系统(+remove删除它从keystore)
- e. Tomcat托拉斯导入到文件系统(+对应的DB条目验证)。
- 在子节点的f. certCN启动和从keystore的删除Tomcat托拉斯从文件系统。
- g.新的终于被再进口到文件系统并且被再追加对keystore。

a.点击重新生成请在输出(时间戳23:36)之下显示我们：


Show ▾ Settings ▾ Security ▾ Software Upgrades ▾ Services ▾ Help ▾

### Certificate Configuration

 Regenerate
  Download
  Generate CSR

---

**Status**

 Success: certificate regenerated. Perform a Disaster Recovery backup so the latest backup contains the regenerated certificate.

---

**Certificate Settings**

File Name tomcat.pem  
 Certificate Name tomcat  
 Certificate Type certs  
 Certificate Group product-cpi  
 Description Self-signed certificate generated by system

---

**Certificate File Data**

```

[
  Version: V3
  Serial Number: 88769680872451706773275250466208361017
  SignatureAlgorithm: SHA1withRSA (1.2.840.113549.1.1.5)
  Issuer Name: L=KRAKOW, ST=MALOPOLSKA, CN=CUCM861, OU=TAC, O=CISCO, C=PL
  Validity From: Sat Aug 02 23:36:44 CEST 2014
  To: Thu Aug 01 23:36:43 CEST 2019
  Subject Name: L=KRAKOW, ST=MALOPOLSKA, CN=CUCM861, OU=TAC, O=CISCO, C=PL
  Key: RSA (1.2.840.113549.1.1.1)
  Key value:
  3082010a0282010100b46ce5c17323962babf797a031ecda073e02163e38f79600766c439fb1dd35d7891439fd2b88c9de9514b6
  f00fa42db0511eca717a9b7996558b6d5c7d5df6b97b338fc8f3524c78c5129495f19a56dd3436549ff338061844b99c93989a5f92
  0ac76cd245ebb2f38e0f0ca1ced2df87f8dd7f37c8f16561fc7a61d64a01f218eb6a23e56c95e91747299602b58e4512f37778028fd
  260029cc5def003768969c096b39880e677a2a008eb7517379717b5d45fb4ce8b9486921ef8828b58ec8348b2b41c34420401b4a
  28e4ee32b4c76dc8d590324d6774ac68f1a4ef54a0d6c277527ec4dc0223ea1457b152bd88c1178b0cedaa9c518512d3f92bae22
  d432b0203010001
  Extensions: 3 present
  [
    Extension: KeyUsage (OID.2.5.29.15)
    Critical: false
    Usages: digitalSignature, keyEncipherment, dataEncipherment, keyAgreement, keyCertSign,
  ]
  [
    Extension: ExtKeyUsageSyntax (OID.2.5.29.37)
    Critical: false
    Usage oids: 1.3.6.1.5.5.7.3.1, 1.3.6.1.5.5.7.3.2, 1.3.6.1.5.5.7.3.5,
  ]
]
  
```

我们新的cert序列号：

十二月：88769680872451706773275250466208361017

十六进制：42C86B2CF293630FE27BBDDC7FD02A39

在文件系统保存的证书(从根)：

```

[root@CUCM861 tomcat]# pwd
/usr/local/platform/.security/tomcat [root@CUCM861 tomcat]# ls -la certs total 48 drwxr-xr-x 2
certbase ccmbase 4096 Aug 2 23:36 . drwxr-xr-x 5 root root 4096 Apr 4 12:47 .. -rwxr-xr-x 1
certbase ccmbase 939 Aug 2 23:36 tomcat.der -rwxr-xr-x 1 certbase ccmbase 64 Aug 2 23:36
tomcat.description -rwxr-xr-x 1 certbase ccmbase 2598 Aug 2 23:36 tomcat.keystore -rwxr-xr-x 1
certbase ccmbase 1326 Aug 2 23:36 tomcat.pem [root@CUCM861 tomcat]# ls -la trust-certs total 108
drwxr-xr-x 2 certbase ccmbase 4096 Aug 2 23:36 . drwxr-xr-x 5 root root 4096 Apr 4 12:47 ..
lrwxrwxrwx 1 certbase ccmbase 11 Aug 2 23:36 101f99a6.0 -> CUCM861.pem lrwxrwxrwx 1 certbase
ccmbase 42 Aug 2 23:36 7e0370f0.0 -> VeriSign_Class_3_Secure_Server_CA_-_G3.pem -rwxr-xr-x 1
certbase ccmbase 939 Aug 2 23:36 CUCM861.der -rwxr-xr-x 1 certbase ccmbase 44 Aug 2 23:36
CUCM861.description -rwxr-xr-x 1 certbase ccmbase 1326 Aug 2 23:36 CUCM861.pem -rwxr-xr-x 1
certbase ccmbase 941 Aug 2 22:51 CUCM861s.der -rwxr-xr-x 1 certbase ccmbase 44 Aug 2 22:51
CUCM861s.description -rwxr-xr-x 1 certbase ccmbase 1330 Aug 2 22:51 CUCM861s.pem lrwxrwxrwx 1
  
```

```
certbase ccmbase 12 Aug 2 23:36 d0aacffb.0 -> CUCM861s.pem -rwxr-xr-x 1 certbase ccmbase 3907
Aug 2 23:36 tomcat-trust.keystore -rwxr-xr-x 1 certbase ccmbase 1520 Apr 4 12:47
VeriSign_Class_3_Secure_Server_CA_-_G3.der -rwxr-xr-x 1 certbase ccmbase 44 Apr 4 12:47
VeriSign_Class_3_Secure_Server_CA_-_G3.description -rwxr-xr-x 1 certbase ccmbase 2114 Apr 4
12:47 VeriSign_Class_3_Secure_Server_CA_-_G3.pem [root@CUCM861 tomcat]# md5sum certs/tomcat.der
a0dd8031bcd3c269844df8a3fafd476c certs/tomcat.der [root@CUCM861 tomcat]# md5sum trust-
certs/CUCM861.der a0dd8031bcd3c269844df8a3fafd476c trust-certs/CUCM861.der
```

您能看到(基于修改时间)我们的新证书存储在certs目录(作为tomcat.der)和在托拉斯CERT (作为CUCM861.der)。MD5 checksum(md5sum)证明,这是同一证书,两次存储。符号链接(101f99a6.0-> CUCM861.pem)也更新。

**b.重新生成由CM完成。请采取仔细观察在重新生成进程:**

```
2014-08-02 23:36:40,962 INFO [main] - log4j configuration successful.
2014-08-02 23:36:40,977 INFO [main] - IN -- CertMgr.java - mainInternal(args) -
2014-08-02 23:36:40,979 INFO [main] - decode

## operation invoked is "regenerate", if you would like to display the cert in OS
## Administration -> Security -> Certificate Management you would see "display" operation
## type. 2014-08-02 23:36:40,979 INFO [main] - op:regenerate ## you are going to regenerate
tomcat cert, below the details of the cert are being listed 2014-08-02 23:36:40,979 INFO [main]
- unit:tomcat 2014-08-02 23:36:40,979 INFO [main] - cert-
dir:%2Fusr%2Flocal%2Fplatform%2F.security%2Ftomcat%2Fcerts%2Ftomcat 2014-08-02 23:36:40,979 INFO
[main] - key-dir:%2Fusr%2Flocal%2Fplatform%2F.security%2Ftomcat%2Fkeys 2014-08-02 23:36:40,979
INFO [main] - logfile:%2Fvar%2Flog%2Factive%2Fplatform%2Flog%2Fcert-mgmt.log 2014-08-02
23:36:40,979 INFO [main] - resultfile:%2Fvar%2Flog%2Factive%2Fplatform%2Flog%2Fcertde-info.xml
2014-08-02 23:36:40,979 INFO [main] - type:certs 2014-08-02 23:36:41,006 INFO [main] - Parsed
information 2014-08-02 23:36:41,006 INFO [main] - OrgName: CISCO 2014-08-02 23:36:41,006 INFO
[main] - OrgUnit: TAC 2014-08-02 23:36:41,007 INFO [main] - Location: KRAKOW 2014-08-02
23:36:41,007 INFO [main] - Country: PL 2014-08-02 23:36:41,007 INFO [main] - State: MALOPOLSKA
2014-08-02 23:36:41,007 INFO [main] - Hostname: CUCM861 2014-08-02 23:36:41,007 INFO [main] -
AlternateHostname: null 2014-08-02 23:36:41,007 INFO [main] - Domain Name: 2014-08-02
23:36:41,007 INFO [main] - IPAddress: 10.48.46.29 2014-08-02 23:36:41,008 INFO [main] - In
parseXML() 2014-08-02 23:36:41,021 INFO [main] - FQDN Name retrived by InetAddress : CUCM861
2014-08-02 23:36:41,021 INFO [main] - CN: CUCM861 2014-08-02 23:36:41,022 INFO [main] - Temp
before mod is 2014-08-02 23:36:41,022 INFO [main] - Temp afer mod is TAC 2014-08-02 23:36:41,022
INFO [main] - Temp in else is TAC 2014-08-02 23:36:41,022 INFO [main] - Temp before mod is 2014-
08-02 23:36:41,022 INFO [main] - Temp afer mod is TAC 2014-08-02 23:36:41,022 INFO [main] - Temp
in else is TAC 2014-08-02 23:36:41,022 INFO [main] - OuFields are TAC 2014-08-02 23:36:41,022
DEBUG [main] - Field after encoding: TAC 2014-08-02 23:36:41,022 DEBUG [main] - Field after
encoding: CISCO 2014-08-02 23:36:41,023 DEBUG [main] - Field after encoding: KRAKOW 2014-08-02
23:36:41,023 DEBUG [main] - Field after encoding: MALOPOLSKA 2014-08-02 23:36:41,023 DEBUG
[main] - Field after encoding: PL 2014-08-02 23:36:41,026 INFO [main] - OU field is :TAC 2014-
08-02 23:36:41,027 INFO [main] - SubjectDN ::
CN=CUCM861,OU=TAC,O=CISCO,L=KRAKOW,ST=MALOPOLSKA,C=PL 2014-08-02 23:36:41,027 INFO [main] - IN -
- CertMgr.java - getCertMgrObj(unit) - tomcat 2014-08-02 23:36:41,036 INFO [main] - OUT --
CertMgr.java - getCertMgrObj - com.cisco.cpi.certMgmt.manager.TomcatCertMgr@123b25c 2014-08-02
23:36:41,036 INFO [main] - Dummy loadProperties 2014-08-02 23:36:41,036 INFO [main] - IN --
CertMgr.java - doOp(info) - 2014-08-02 23:36:41,037 DEBUG [main] - cert filename root: 'tomcat'
2014-08-02 23:36:41,037 DEBUG [main] - cert file parent directory:
'/usr/local/platform/.security/tomcat/certs' 2014-08-02 23:36:41,037 DEBUG [main] - File created
with certParentDir 2014-08-02 23:36:41,037 DEBUG [main] - DirCheck for certParentDir succeeded
2014-08-02 23:36:41,038 DEBUG [main] - File created with keyDir 2014-08-02 23:36:41,038 DEBUG
[main] - DirCheck for keyDir succeeded ## API function for generating certificate is invoked
2014-08-02 23:36:41,039 DEBUG [main] - Calling genCertAPI() from regenCert() 2014-08-02
23:36:41,039 INFO [main] - IN -- DefaultCertMgr.java - genCertAPI(info) - 2014-08-02
23:36:41,039 INFO [main] - parsed root path: '/usr/local/platform/.security/tomcat/certs' 2014-
08-02 23:36:41,039 DEBUG [main] - cert file parent directory:
'/usr/local/platform/.security/tomcat/certs' 2014-08-02 23:36:41,040 DEBUG [main] - tomcat
Certificate keysize : 2048 2014-08-02 23:36:41,041 INFO [main] - parsed root path:
'/usr/local/platform/.security/tomcat/certs' 2014-08-02 23:36:41,042 DEBUG [main] -
SubjectAltName : null 2014-08-02 23:36:41,385 DEBUG [main] - Loading RSA providers explicitly...
```



2014-08-02 23:36:42,989 DEBUG [main] - RSA providers are loaded explicitly... 2014-08-02  
23:36:42,989 DEBUG [main] - New security.provider.1=JsafeJCE 2014-08-02 23:36:42,989 DEBUG  
[main] - New security.provider.2=RsaJsse 2014-08-02 23:36:42,989 DEBUG [main] - New  
security.provider.3=BC 2014-08-02 23:36:42,989 DEBUG [main] - New security.provider.4=SUN 2014-  
08-02 23:36:42,989 DEBUG [main] - New security.provider.5=SunRsaSign 2014-08-02 23:36:42,989  
DEBUG [main] - New security.provider.6=SunJSSE 2014-08-02 23:36:42,989 DEBUG [main] - New  
security.provider.7=SunJCE 2014-08-02 23:36:42,989 DEBUG [main] - New  
security.provider.8=SunJGSS 2014-08-02 23:36:42,989 DEBUG [main] - New  
security.provider.9=SunSASL 2014-08-02 23:36:42,989 DEBUG [main] - New  
security.provider.10=XMLDSig 2014-08-02 23:36:42,990 DEBUG [main] - New  
security.provider.11=SunPCSC **## at this moment generateCertificate() function is invoked which  
actually returns a new ## ertificate as a result** 2014-08-02 23:36:42,990 INFO [main] - IN --  
RSACryptoEngine.java - generateCertificate(..) - 2014-08-02 23:36:43,003 INFO [main] -  
passphrase is :LA20PvI2sezuPqph 2014-08-02 23:36:44,657 INFO [main] - OUT --  
RSACryptoEngine.java - generateCertificate - 2014-08-02 23:36:44,658 INFO [main] - IN --  
RSACryptoEngine.java - loadCertificate(..) - **## certificate is written into filesystem and the  
owner (user:group) and rights are being**  
**## adjusted** 2014-08-02 23:36:45,009 INFO [main] - OUT -- RSACryptoEngine.java - loadCertificate  
- 2014-08-02 23:36:45,009 INFO [main] - IN -- DefaultCertMgr.java -  
setOwnershipAndPermissions(file) - 2014-08-02 23:36:45,009 DEBUG [main] -  
setOwnershipAndPermissions : certs 2014-08-02 23:36:45,009 DEBUG [main] - Changing ownership of  
file '/usr/local/platform/.security/tomcat/certs' 2014-08-02 23:36:45,010 INFO [main] - IN --  
Util.java - sysExec(exe, args) - 2014-08-02 23:36:45,010 DEBUG [main] - Executing command from  
Util.sysExec : /bin/chown -R certbase /usr/local/platform/.security/tomcat/certs 2014-08-02  
23:36:45,017 INFO [main] - OUT -- Util.java - sysExec - 2014-08-02 23:36:45,017 DEBUG [main] -  
Changing group ownership of file '/usr/local/platform/.security/tomcat/certs' 2014-08-02  
23:36:45,018 INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:45,018 DEBUG  
[main] - Executing command from Util.sysExec : /bin/chgrp -R ccmbase  
/usr/local/platform/.security/tomcat/certs 2014-08-02 23:36:45,021 INFO [main] - OUT --  
Util.java - sysExec - 2014-08-02 23:36:45,021 DEBUG [main] - Changing mode of file  
'/usr/local/platform/.security/tomcat/certs' 2014-08-02 23:36:45,021 INFO [main] - IN --  
Util.java - sysExec(exe, args) - 2014-08-02 23:36:45,021 DEBUG [main] - Executing command from  
Util.sysExec : /bin/chmod -R 755 /usr/local/platform/.security/tomcat/certs 2014-08-02  
23:36:45,046 INFO [main] - OUT -- Util.java - sysExec - 2014-08-02 23:36:45,046 INFO [main] -  
OUT -- DefaultCertMgr.java - setOwnershipAndPermissions - 2014-08-02 23:36:45,046 INFO [main] -  
IN -- DefaultCertMgr.java - setOwnershipAndPermissions(file) - 2014-08-02 23:36:45,046 DEBUG  
[main] - setOwnershipAndPermissions : keys 2014-08-02 23:36:45,046 DEBUG [main] - Changing  
ownership of file '/usr/local/platform/.security/tomcat/keys' 2014-08-02 23:36:45,046 INFO  
[main] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:45,046 DEBUG [main] - Executing  
command from Util.sysExec : /bin/chown -R certbase /usr/local/platform/.security/tomcat/keys  
2014-08-02 23:36:45,051 INFO [main] - OUT -- Util.java - sysExec - 2014-08-02 23:36:45,051 DEBUG  
[main] - Changing group ownership of file '/usr/local/platform/.security/tomcat/keys' 2014-08-02  
23:36:45,052 INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:45,052 DEBUG  
[main] - Executing command from Util.sysExec : /bin/chgrp -R ccmbase  
/usr/local/platform/.security/tomcat/keys 2014-08-02 23:36:45,055 INFO [main] - OUT -- Util.java  
- sysExec - 2014-08-02 23:36:45,055 DEBUG [main] - Changing mode of file  
'/usr/local/platform/.security/tomcat/keys' 2014-08-02 23:36:45,055 INFO [main] - IN --  
Util.java - sysExec(exe, args) - 2014-08-02 23:36:45,055 DEBUG [main] - Executing command from  
Util.sysExec : /bin/chmod -R 755 /usr/local/platform/.security/tomcat/keys 2014-08-02  
23:36:45,061 INFO [main] - OUT -- Util.java - sysExec - 2014-08-02 23:36:45,061 INFO [main] -  
OUT -- DefaultCertMgr.java - setOwnershipAndPermissions - **## description is generated and put  
into the description file** 2014-08-02 23:36:45,061 INFO [main] - IN -- DefaultCertMgr.java -  
createDescriptionFile(name, description) - 2014-08-02 23:36:45,063 INFO [main] - description is  
:Self-signed certificate generated by system 2014-08-02 23:36:45,063 INFO [main] - OUT --  
DefaultCertMgr.java - createDescriptionFile - 2014-08-02 23:36:45,064 INFO [main] - IN --  
DefaultCertMgr.java - setOwnershipAndPermissions(file) - 2014-08-02 23:36:45,064 DEBUG [main] -  
setOwnershipAndPermissions : tomcat.description 2014-08-02 23:36:45,064 DEBUG [main] - Changing  
ownership of file '/usr/local/platform/.security/tomcat/certs/tomcat.description' 2014-08-02  
23:36:45,064 INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:45,064 DEBUG  
[main] - Executing command from Util.sysExec : /bin/chown certbase  
/usr/local/platform/.security/tomcat/certs/tomcat.description 2014-08-02 23:36:45,074 INFO  
[main] - OUT -- Util.java - sysExec - 2014-08-02 23:36:45,074 DEBUG [main] - Changing group  
ownership of file '/usr/local/platform/.security/tomcat/certs/tomcat.description' 2014-08-02  
23:36:45,074 INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:45,075 DEBUG

```
[main] - Executing command from Util.sysExec : /bin/chgrp ccmbase
/usr/local/platform/.security/tomcat/certs/tomcat.description 2014-08-02 23:36:45,077 INFO
[main] - OUT -- Util.java - sysExec - 2014-08-02 23:36:45,077 DEBUG [main] - Changing mode of
file '/usr/local/platform/.security/tomcat/certs/tomcat.description' 2014-08-02 23:36:45,077
INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:45,077 DEBUG [main] -
Executing command from Util.sysExec : /bin/chmod 755
/usr/local/platform/.security/tomcat/certs/tomcat.description 2014-08-02 23:36:45,083 INFO
[main] - OUT -- Util.java - sysExec - 2014-08-02 23:36:45,083 INFO [main] - OUT --
DefaultCertMgr.java - setOwnershipAndPermissions - 2014-08-02 23:36:45,084 INFO [main] - IN --
CertUtil.java - populateCertInfo(cert, opInfo, certFilePemLocation) - 2014-08-02 23:36:45,086
INFO [main] - IN -- CertUtil.java - getHostName(..) - 2014-08-02 23:36:45,089 INFO [main] - OUT
-- CertUtil.java - getHostName - CUCM861 2014-08-02 23:36:45,092 INFO [main] - IN --
CryptoUtil.java - saveAsPEM(..) - 2014-08-02 23:36:45,098 INFO [main] - OUT -- CryptoUtil.java -
saveAsPEM - 2014-08-02 23:36:45,098 INFO [main] - OUT -- CertUtil.java - populateCertInfo -
```

**c.现在您有一新证书就绪在文件系统级别(在certs的tomcat.pem上)。在托拉斯CERT的CUCM861.pem也在这里，但是在此阶段未被添加。这是后的盖板。现在是时候更新我们的在DB的Tomcat证书共享与其他节点的更改。**

**在重新生成前您可能发现在DB的Tomcat证书：**

```
admin:run sql select c.pkid, c.serialnumber from certificate c, certificateservicecertificatemap
m WHERE m.fkcertificate = c.pkid AND m.tkcertificateservice = '5'
pkid serialnumber =====
533dbbfc-78ce-b46f-7d64-cd2b7c536f6d 6cf5bc855b681f658f9e7506d3ec6ea5 a6b18f66-bf72-261d-8ecd-
bfcea02add4e 68052e2e9cd6c979079e6449ff873031
```

**您能看到有在DB的两Tomcat证书(PUB和SUB)，旧有Tomcat cert有号码='6cf5bc855b681f658f9e7506d3ec6ea5。我们的Tomcat cert PKID是'533dbbfc-78ce-b46f-7d64-cd2b7c536f6d'，并且不更改，当cert重新生成。**

**检查进一步CM日志文件(在片断的注释)：**

```
2014-08-02 23:36:45,099 INFO [main] - IN -- CertDBAction.java -
insertCertificateInDB(certFiletoStore, info) - 2014-08-02 23:36:45,099 INFO [main] -
DBParameters ... PKID : null CN : L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL serialNo
: 42c86b2cf293630fe27bbddc7fd02a39 hostName : CUCM861 issuerName :
L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL Certificate : Not Printing huge
Certificate String.. IPV4Address : 10.48.46.29 IPV6Address : TimeToLive : NULL UNIT : tomcat
TYPE : certs ROLE : null RoleMoniker : null RoleEnum :null SERVICE : null ServiceMoniker : null
ServiceEnum :0 2014-08-02 23:36:45,099 INFO [main] - DB - Certifciate Store Plugin Handler is
:com.cisco.ccm.certmgmt.db.CertDBImpl 2014-08-02 23:36:45,159 DEBUG [main] - Connection
Initialized to localnode. Connection HashCode:17241377 --Details:Connector(NOT CONNECTED:
Driver=com.informix.jdbc.IfxDriver;) 2014-08-02 23:36:45,159 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[true]_target[0]connectToPubByDefault[false] 2014-08-02
23:36:45,160 DEBUG [main] - Try to get a connection from pool 2014-08-02 23:36:45,160 DEBUG
[main] - getting local connection from Pool 2014-08-02 23:36:45,162 DEBUG [main] - Getting
connection from connection pool entry <database,jdbcurl2> 2014-08-02 23:36:45,162 DEBUG [main] -
There are currently 0 connection pool entries 2014-08-02 23:36:45,166 DEBUG [main] - Checking if
connection limit has been reached for database 2014-08-02 23:36:45,167 DEBUG [main] - Connecting
to publisher so max number of connections allowed is 100 2014-08-02 23:36:45,167 DEBUG [main] -
Number of connections in use is 0 2014-08-02 23:36:45,167 DEBUG [main] - There is currently 1
connection pool entry 2014-08-02 23:36:45,168 DEBUG [main] - Number of available connections in
pool: 0 2014-08-02 23:36:45,381 DEBUG [main] - Adding connection
<com.informix.jdbc.IfxDriver> to connection list 2014-08-02 23:36:45,382 DEBUG
[main] - Marking connection <com.informix.jdbc.IfxDriver> as used 2014-08-02
23:36:45,382 DEBUG [main] - Got connection from pool 2014-08-02 23:36:45,389 DEBUG [main] -
getConn: usePooling[true]connectToLocalDB[true]_target[0]connectToPubByDefault[false] 2014-08-02
23:36:45,395 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:45,396 DEBUG [main] -
Closing the connection. Connection HashCode:17241377 --Details:Connector(CONNECTED:
Driver=com.informix.jdbc.IfxDriver;) 2014-08-02 23:36:45,396 DEBUG [main] - Attempting to close
connection 2014-08-02 23:36:45,396 DEBUG [main] - Removing connection <database, jdbcurl2> from
ConnectionManager list 2014-08-02 23:36:45,396 DEBUG [main] -
```

removeConnectionFromConnectionList() 2014-08-02 23:36:45,397 DEBUG [main] - Removing connection <com.informix.jdbc.IfxSqlConnect@1a7789c> from connection list 2014-08-02 23:36:45,399 DEBUG [main] - Connection <com.informix.jdbc.IfxSqlConnect@1a7789c> is not closed, adding it back to the pool entry <database,jdbcurl2> 2014-08-02 23:36:45,399 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,399 INFO [main] - TYPETRUSTROLEMAP ::{TRUST\_ROLE\_DATA\_SERVICE=24, TRUST\_ROLE\_PROVISIONING\_SERVICE=23, TRUST\_ROLE\_SERVICEABILITY=27, TRUST\_ROLES\_CALLMANAGER\_TFTP=2, PHONE\_TRUST\_ROLES\_FIREWALL=6, ROLE\_APPLICATION\_SERVER=7, TRUST\_ROLES\_SAST=0, ROLE\_SIGNALING\_CALL\_CONTROL=22, TRUST\_ROLES\_CALLMANAGER=1, TRUST\_ROLES\_UNKNOWN=255, TRUST\_ROLE\_NETWORK\_ELEMENT=25, TRUST\_ROLES\_SRST=5, ROLE\_CERTIFICATE\_AUTHORITY=20, TRUST\_ROLE\_VPN=26, TRUST\_ROLES\_CAPF=4, TRUST\_ROLES\_TFTP=3, ROLE\_AUTHENTICATION\_AUTHORIZATION=21} 2014-08-02 23:36:45,399 INFO [main] - TYPESEVICEROLEMAP ::{Phone-VPN-trust=2, CallManager=3, Phone-CTL-trust=15, tomcat-trust=6, TVS=11, ipsec-trust=8, Phone-trust=1, Phone-SAST-trust=14, tomcat=5, userlicensing-trust=16, CAPF=9, ipsec=7, CAPF-trust=10, CallManager-trust=4, TVS-trust=12, directory-trust=13} 2014-08-02 23:36:45,399 INFO [main] - unitRoleMap ::{Phone-VPN-trust=[TRUST\_ROLE\_VPN], CallManager=[TRUST\_ROLES\_CALLMANAGER\_TFTP, TRUST\_ROLES\_SAST], Phone-CTL-trust=[ROLE\_APPLICATION\_SERVER], tomcat-trust=[ROLE\_APPLICATION\_SERVER], TVS=[ROLE\_AUTHENTICATION\_AUTHORIZATION], ipsec-trust=[], Phone-trust=[ROLE\_APPLICATION\_SERVER], Phone-SAST-trust=[TRUST\_ROLES\_SAST, TRUST\_ROLES\_TFTP], tomcat=[ROLE\_APPLICATION\_SERVER], userlicensing-trust=[], CAPF=[TRUST\_ROLES\_CAPF], ipsec=[ROLE\_APPLICATION\_SERVER], CAPF-trust=[], CallManager-trust=[], TVS-trust=[], directory-trust=[]} 2014-08-02 23:36:45,400 INFO [main] - commonTrustStoreMap ::{} 2014-08-02 23:36:45,403 DEBUG [main] - Connection Initialized to Publisher. Connection HashCode:5823789 --Details:Connector(NOT CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-02 23:36:45,403 INFO [main] - IN -- CertDBImpl.java - insertCertificate(certInfo, con) - 2014-08-02 23:36:45,404 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[1]connectToPubByDefault[true] 2014-08-02 23:36:45,404 DEBUG [main] - Try to get a connection from pool 2014-08-02 23:36:45,404 DEBUG [main] - Getting connection from connection pool entry <database,jdbcurl2> 2014-08-02 23:36:45,404 DEBUG [main] - There is currently 1 connection pool entry 2014-08-02 23:36:45,404 DEBUG [main] - Adding connection <com.informix.jdbc.IfxSqlConnect@1a7789c> to connection list 2014-08-02 23:36:45,404 DEBUG [main] - Marking connection <com.informix.jdbc.IfxSqlConnect@1a7789c> as used 2014-08-02 23:36:45,404 DEBUG [main] - Got connection from pool 2014-08-02 23:36:45,406 INFO [main] - IN -- CertDBImpl.java - populateRoleEnumServiceEnum(certInfo) - **## cert type is tomcat, you can see serviceEnum = 5** 2014-08-02 23:36:45,407 INFO [main] - UNIT :: tomcat 2014-08-02 23:36:45,407 INFO [main] - role :: [ROLE\_APPLICATION\_SERVER] 2014-08-02 23:36:45,407 INFO [main] - roleEnum :: [7] 2014-08-02 23:36:45,407 INFO [main] - service :: null 2014-08-02 23:36:45,407 INFO [main] - serviceEnum :: 5 2014-08-02 23:36:45,407 INFO [main] - OUT -- CertDBImpl.java - populateRoleEnumServiceEnum - 2014-08-02 23:36:45,409 INFO [main] - IN -- CertDBUtil.java - getProcessNodeId(con, hostName, ipAddress, fqdn) - 2014-08-02 23:36:45,409 INFO [main] - getProcessNodeId Query :SELECT PKID,NAME FROM PROCESSNODE WHERE UPPER(NAME)=UPPER("CUCM861") OR UPPER(NAME)=UPPER("10.48.46.29") OR UPPER(NAME)=UPPER("CUCM861") 2014-08-02 23:36:45,409 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[1]connectToPubByDefault[true] 2014-08-02 23:36:45,418 INFO [main] - ProcessNodeId:13f4b0d9-0bae-429a-a86e-625336a35bb6 2014-08-02 23:36:45,418 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:45,418 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,418 INFO [main] - OUT -- CertDBUtil.java - getProcessNodeId - 2014-08-02 23:36:45,418 INFO [main] - IN -- CertDBImpl.java - getSelfSignedCertificate(certInfo, con) - 2014-08-02 23:36:45,418 DEBUG [main] - getSelfSignedCertificate Query :SELECT A.PKID,SERVERNAME,SUBJECTNAME,ISSUENAME,SERIALNUMBER,IPV4ADDRESS,IPV6ADDRESS,TIMETOLIVE, B.HASH FROM CERTIFICATE A, CERTIFICATEHASHMAP B, CERTIFICATESEVICECERTIFICATEMAP C WHERE A.PKID=B.FKCERTIFICATE AND A.PKID = C.FKCERTIFICATE AND C.TKCERTIFICATESERVICE = "5" AND A.SERVERNAME = "CUCM861" 2014-08-02 23:36:45,418 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[1]connectToPubByDefault[true] 2014-08-02 23:36:45,424 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:45,424 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,425 INFO [main] - OUT -- CertDBImpl.java - getSelfSignedCertificate - 2014-08-02 23:36:45,425 INFO [main] - IN -- CertDBImpl.java - getPkidOfCertificate(hash, serverName, con) - **## looking for PKID of our cert** 2014-08-02 23:36:45,425 DEBUG [main] - GetPKID Query :SELECT A.PKID FROM CERTIFICATE A, CERTIFICATEHASHMAP B WHERE A.PKID=B.FKCERTIFICATE AND B.HASH = "/hSVsEZT+yZeaxE+K0EM02n1Pgk=" 2014-08-02 23:36:45,425 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[1]connectToPubByDefault[true] 2014-08-02 23:36:45,431 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:45,435 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,435 INFO [main] - OUT --

```
CertDBImpl.java - getPkidOfCertificate - 2014-08-02 23:36:45,436 DEBUG [main] - Own certificate
is regenerated. newCert is not available in DB. 2014-08-02 23:36:45,436 DEBUG [main] - INSERT
FLAG :: isCertUpdate=true :: doNothing=false ## finally certificate is inserted. In fact this is
an update since The same is used
## PKID of the tomcat cert as it was prior regeneration 2014-08-02 23:36:45,436 DEBUG [main] -
INSERT/UPDATE Query of CERTIFICATE : UPDATE CERTIFICATE SET SERVERNAME="CUCM861",
SUBJECTNAME="L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL",
ISSUERNAME="L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL",
SERIALNUMBER="42c86b2cf293630fe27bbddc7fd02a39", CERTIFICATE="-----BEGIN CERTIFICATE-----
MIIDpzCCAo+gAwIBAgIQQshrLPKTYw/ie73cf9AqOTANBgkqhkiG9w0BAQUFADBj
MQswCQYDVQQGEwJQTDEOMAwGAlUEChMFQ01TQ08xDDAKBgNVBAsTA1RBQzEQMA4G
AlUEAxMHQ1VDTTg2MTETMBEgAlUECBMKTUFMT1BPTFNlQTEPMA0GA1UEBxMGS1JB
S09XMB4XDTE0MDgwMjIxMzY0NFoXDTE0MDgwMTIxMzY0M1owYzELMAkGA1UEBhMC
UEwwDjAMBgNVBAoTBUNJUU0NPMQwwCgYDVQQLEwNUQUxMxEDAOBgNVBAMTB0NVQ004
NjExEzARBgNVBAGTCK1BTE9QT0xTS0EXDZANBgNVBAcTBktSQUtPVzCCAS1wDQYJ
KoZIHvcNAQEBBQADgGEPADCCAQoCggEBALRs5cFzI5Yrq/eXoDHs2gc+AhY+OPeW
AHZsQ5+x3TXXiRQ5/SuIyd6VFLbwD6QtsFEeynF6m3mWVYttXHld9r17M4/I81JM
eMUSLjXxmbdNDZUn/M4BhhEuZyTmJpFkgrHbNjF67Lzjg8Moc7S34f43X83yPF1
Yfx6YdZKafIY62oj5WYv6RdHKZYCY5FEvN3eAKP0mACnMXe8AN2iWnAlrOYgOZ3
oqAI63UXN5cXtdRftM6LlIaShviCiljsg0iytBw0QgQBtKKOTuMrTHbcjVkJJNZ3
SsaPgk71Sg1sJ3Un7E3AIj6hRxsVK9iMEXiwztqpxRhRLT+SuuItQysCAwEAAaNX
MFUwCwYDVR0PBAQDAGK8MCCGAlUdJQQgMB4GCCsGAQUFBwMBBggrBgEFBQCcDAGYI
KwYBBQUHAWUwHQYDVR0OBBYEFPOxKMSHC4gnQQqIgLAgxQjIH0srMA0GCSqGSIb3
DQEBBQUAA4IBAQBvSfzSClnLTYKuOPs4RtOUQXfuUMHLhI74QoBJS98A8a8w1Kg
M8ilXukBg6VZ37xgYm2uaLTCunXeG/EiNx9nkC+kgJ9y78Q4jmRh2//wqdvAkI+R
R9745RRntD4xS3svv3uGSljEGd1eCC76NUWpQAWezz0AlAEAE/EWO7hlyZVRghuD
hq5vLVNrH0gQkjve56/K7E9E83PqVO9JTAGRvjL9/uRpeooucACJYI9WPyXMYa6w
sIpCqFRLocYIUGCy9ufroflvptawOJQGZ9Z9k2SpanRD2LJunqgY8Vbveq/7Z2x
ndm8j36Lyn4IrESrk7Umpr27fn8KktYvMaD -----END CERTIFICATE----- ", IPV4ADDRESS="10.48.46.29",
IPV6ADDRESS="", TIMETOLIVE=NULL WHERE PKID = "533dbbfc-78ce-b46f-7d64-cd2b7c536f6d" 2014-08-02
23:36:45,436 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[1]connectToPubByDefault[true] 2014-08-02
23:36:45,447 INFO [main] - IN -- CertDBImpl.java - updateCertificateHashMap(certInfo, con) -
2014-08-02 23:36:45,448 DEBUG [main] - Update query of CERTIFICATEHASHMAP :UPDATE
CERTIFICATEHASHMAP SET HASH = "/hSVsEZT+yZeaxe+K0EM02n1Pgk=" WHERE FKCERTIFICATE = "533dbbfc-
78ce-b46f-7d64-cd2b7c536f6d" 2014-08-02 23:36:45,448 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[1]connectToPubByDefault[true] 2014-08-02
23:36:45,452 INFO [main] - OUT -- CertDBImpl.java - updateCertificateHashMap - 2014-08-02
23:36:45,452 INFO [main] - IN -- CertDBImpl.java - insertCertSrvCertMap(certInfo, con) - 2014-
08-02 23:36:45,452 INFO [main] - IN -- CertDBImpl.java -
checkExistingCertificateServiceMapping(certInfo, serviceEnum, con) - 2014-08-02 23:36:45,452
DEBUG [main] - checkExistingTrustCertificateForService Query :SELECT PKID,FKCERTIFICATE,
TKCERTIFICATESERVICE FROM CERTIFICATESERVICECERTIFICATEMAP WHERE FKCERTIFICATE = "533dbbfc-78ce-
b46f-7d64-cd2b7c536f6d" AND TKCERTIFICATESERVICE= "5" 2014-08-02 23:36:45,453 DEBUG [main] -
getConn: usePooling[true]connectToLocalDB[false]_target[1]connectToPubByDefault[true] 2014-08-02
23:36:45,455 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:45,456 INFO [main] -
Connection/Statement/Resultset is closed properly. ## CM verifies if there is a proper mapping
for the new cert in the
## CERTIFICATESERVICECERTIFICATEMAP table. There is so no need for update 2014-08-02
23:36:45,456 INFO [main] - OUT -- CertDBImpl.java - checkExistingCertificateServiceMapping -
2014-08-02 23:36:45,456 DEBUG [main] - Certificate to be inserted in
CERTIFICATESERVICECERTIFICATEMAP table :tomcat ::PKID :533dbbfc-78ce-b46f-7d64-cd2b7c536f6d
::toInsertInCertSrvMap:false 2014-08-02 23:36:45,456 DEBUG [main] - CertService mapping entry
already exists.. 2014-08-02 23:36:45,456 INFO [main] - OUT -- CertDBImpl.java -
insertCertSrvCertMap - 2014-08-02 23:36:45,456 INFO [main] - IN -- CertDBImpl.java -
insertCertTrustRoleMap(certInfo, log, con) - 2014-08-02 23:36:45,456 INFO [main] - IN --
CertDBImpl.java - checkExistingCertificateRoleMapping(certInfo, roleEnum, con) - ## the same
check for CERTIFICATESTRUSTROLEMAP table. It is there, nothing to update. 2014-08-02 23:36:45,456
DEBUG [main] - checkExistingTrustCertificateForRole Query :SELECT PKID,FKCERTIFICATE,
TKTRUSTROLE FROM CERTIFICATESTRUSTROLEMAP WHERE FKCERTIFICATE = "533dbbfc-78ce-b46f-7d64-
cd2b7c536f6d" AND TKTRUSTROLE= "7" 2014-08-02 23:36:45,456 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[1]connectToPubByDefault[true] 2014-08-02
23:36:45,459 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:45,459 INFO [main] -
Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,459 INFO [main] - OUT --
```

```

CertDBImpl.java - checkExistingCertificateRoleMapping - 2014-08-02 23:36:45,459 DEBUG [main] -
Certificate to be inserted in CERTIFICATESTRUSTROLEMAP table :tomcat ::PKID :533dbbfc-78ce-b46f-
7d64-cd2b7c536f6d ::toInsertInCertSrvMap:false 2014-08-02 23:36:45,459 DEBUG [main] - CertRole
mapping entry already exists.. 2014-08-02 23:36:45,459 INFO [main] - OUT -- CertDBImpl.java -
insertCertTrustRoleMap - 2014-08-02 23:36:45,459 INFO [main] - IN -- CertDBImpl.java -
insertCertProcessNodeMap(certInfo, con) - 2014-08-02 23:36:45,459 INFO [main] - IN --
CertDBImpl.java - checkExistingCertProcessNodeMapping(certInfo, con) - 2014-08-02 23:36:45,459
DEBUG [main] - checkExistingCertProcessNodeMapping Query :SELECT PKID,FKCERTIFICATE,
FKPROCESSNODE,SERVERNAME FROM CERTIFICATEPROCESSNODEMAP WHERE FKCERTIFICATE="533dbbfc-78ce-b46f-
7d64-cd2b7c536f6d" AND FKPROCESSNODE="13f4b0d9-0bae-429a-a86e-625336a35bb6" AND
SERVERNAME="CUCM861" 2014-08-02 23:36:45,460 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[1]connectToPubByDefault[true] 2014-08-02
23:36:45,462 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:45,463 INFO [main] -
Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,463 INFO [main] - OUT --
CertDBImpl.java - checkExistingCertProcessNodeMapping - 2014-08-02 23:36:45,463 DEBUG [main] -
CertProcessNode mapping entry already exists.. 2014-08-02 23:36:45,463 INFO [main] - OUT --
CertDBImpl.java - insertCertProcessNodeMap - 2014-08-02 23:36:45,467 DEBUG [main] - Connection
committed for insertCertificate.. 2014-08-02 23:36:45,467 DEBUG [main] - Insertion of
Certificate in DB is Successful. 2014-08-02 23:36:45,467 INFO [main] - OUT -- CertDBImpl.java -
insertCertificate - 2014-08-02 23:36:45,467 DEBUG [main] - Closing the connection. Connection
HashCode:5823789 --Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-02
23:36:45,468 DEBUG [main] - Attempting to close connection 2014-08-02 23:36:45,468 DEBUG [main]
- Removing connection <database, jdbcurl2> from ConnectionManager list 2014-08-02 23:36:45,468
DEBUG [main] - removeConnectionFromConnectionList() 2014-08-02 23:36:45,468 DEBUG [main] -
Removing connection <com.informix.jdbc.IfxSqlConnect@1a7789c> from connection list 2014-08-02
23:36:45,468 DEBUG [main] - Connection <com.informix.jdbc.IfxSqlConnect@1a7789c> is not closed,
adding it back to the pool entry <database,jdbcurl2> 2014-08-02 23:36:45,468 INFO [main] -
Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,468 INFO [main] - DB -
Generate Certificate operation in DB is successful 2014-08-02 23:36:45,468 INFO [main] - OUT --
CertDBAction.java - insertCertificateInDB - 2014-08-02 23:36:45,468 INFO [main] - OUT --
DefaultCertMgr.java - genCertAPI - Self-signed certificate generated by system. 2014-08-02
23:36:45,469 INFO [main] - IN -- CertUtil.java - sendAlarm(alarmName, alarmParamName,
alarmParamValue) - 2014-08-02 23:36:45,469 DEBUG [main] - Sending alarm for :: TomcatCertRegen
:: Message :: The tomcat certificate is regenerated 2014-08-02 23:36:45,471 DEBUG [main] -
AlarmSender: getInstance

```

**D.因为您记得您可能发现在文件系统的同样cert象Tomcat和Tomcat托拉斯。直到当前仅Tomcat一个人在文件系统适当地更新。请跟随进一步CM日志发现Tomcat托拉斯如何在此节点更新：**

```

2014-08-02 23:36:45,518 INFO [main] - OUT -- CertUtil.java - sendAlarm -
2014-08-02 23:36:45,518 INFO [main] - IN -- TomcatCertMgr.java - copyToTomcatTrustStore(info) -
2014-08-02 23:36:45,518 INFO [main] - IN -- TomcatCertMgr.java -
deleteCertFromTomcatTrustStore(info) -
2014-08-02 23:36:45,519 INFO [main] - IN -- RSACryptoEngine.java - loadCertificate(..) -
2014-08-02 23:36:45,520 INFO [main] - OUT -- RSACryptoEngine.java - loadCertificate -
2014-08-02 23:36:45,520 INFO [main] - IN -- CertUtil.java - parseCNfromDN(DN, sSearchStr) -
2014-08-02 23:36:45,520 DEBUG [main] - parseCNfromDN( certSubjDN:
'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL')
2014-08-02 23:36:45,520 DEBUG [main] - Truncating CN 'CUCM861,OU=TAC,O=CISCO,C=PL' -> 'CUCM861'
2014-08-02 23:36:45,520 INFO [main] - OUT -- CertUtil.java - parseCNfromDN -
2014-08-02 23:36:45,520 DEBUG [main] - Parsed CN 'CUCM861' from DN
'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL'

```

```

## first you need to delete old tomcat-trust certificate on the filesystem 2014-08-02
23:36:45,521 DEBUG [main] - Old Cert to be deleted during import :
/usr/local/platform/.security/tomcat/trust-certs/CUCM861.pem 2014-08-02 23:36:45,521 INFO [main]
- IN -- DefaultCertMgr.java - deleteCert(info) - decode: true op: delete unit: tomcat-trust
keystoreUnit:tomcat-trust logFile: /var/log/active/platform/log/cert-mgmt.log resultFile:
/var/log/active/platform/log/certde-info.xml keyDir: /usr/local/platform/.security/tomcat/keys
certDir: /usr/local/platform/.security/tomcat/trust-certs/CUCM861.pem srcCert: null type: trust-
certs rootCACert: null trustDir: null DNAME:
CN=CUCM861,OU=TAC,O=CISCO,L=KRAKOW,ST=MALOPOLSKA,C=PL description:null isDBInsert:true 2014-08-
02 23:36:45,521 INFO [main] - parsed filename: 'CUCM861.pem' 2014-08-02 23:36:45,521 DEBUG
[main] - filename: 'CUCM861.pem' 2014-08-02 23:36:45,521 DEBUG [main] - fileRoot: 'CUCM861'

```

2014-08-02 23:36:45,521 INFO [main] - IN -- DefaultCertMgr.java - deleteDERandPEM(filenameRoot, parentDir, info) - 2014-08-02 23:36:45,521 DEBUG [main] - ParentDir:/usr/local/platform/.security/tomcat/trust-certsFileName.(DER/PEM):CUCM861 2014-08-02 23:36:45,521 INFO [main] - IN -- RSACryptoEngine.java - loadCertificate(..) - 2014-08-02 23:36:45,538 INFO [main] - OUT -- RSACryptoEngine.java - loadCertificate - 2014-08-02 23:36:45,539 INFO [main] - IN -- CertUtil.java - populateCertInfo(cert, opInfo, certFilePemLocation) - 2014-08-02 23:36:45,539 INFO [main] - IN -- CertUtil.java - getHostName(..) - 2014-08-02 23:36:45,539 INFO [main] - OUT -- CertUtil.java - getHostName - CUCM861 2014-08-02 23:36:45,540 INFO [main] - IN -- CryptoUtil.java - saveAsPEM(..) - 2014-08-02 23:36:45,540 INFO [main] - OUT -- CryptoUtil.java - saveAsPEM - 2014-08-02 23:36:45,540 INFO [main] - OUT -- CertUtil.java - populateCertInfo - **## the same should be done on the DB level.**

**CM consider deleting the the association**

**## for this tomcat-trust cert from corresponding tables: CERTIFICATESERVICECERTIFICATEMAP, CERTIFICATEPROCESSNODEMAP and CERTIFICATETRUSTROLEMAP. As you see this does not happen since the certificate itself has not been deleted so FKCERTIFICATE in those tables become "null for this certificate" (cert still exists, has been ## updated only)** 2014-08-02 23:36:45,540 INFO [main] - IN -- CertDBAction.java - deleteCertificateInDB(certInfo) - 2014-08-02 23:36:45,540 INFO [main] - DBParameters ... PKID : null CN : L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL serialNo : 6cf5bc855b681f658f9e7506d3ec6ea5 hostName : CUCM861 issuerName : L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL Certificate : Not Printing huge Certificate String.. IPV4Address : 10.48.46.29 IPV6Address : TimeToLive : NULL UNIT : tomcat-trust TYPE : trust-certs ROLE : null RoleMoniker : null RoleEnum :null SERVICE : null ServiceMoniker : null ServiceEnum :0 2014-08-02 23:36:45,540 INFO [main] - DB - Certifciate Store Plugin Handler is :com.cisco.ccm.certmgmt.db.CertDBImpl 2014-08-02 23:36:45,541 INFO [main] - IN -- CertDBImpl.java - deleteCertificate(certInfo) - 2014-08-02 23:36:45,542 DEBUG [main] - Connection Initialized to Publisher. Connection HashCode:12578138 -- Details:Connector(NOT CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-02 23:36:45,542 INFO [main] - IN -- CertDBImpl.java - getPkidOfCertificate(hash, serverName, con) - 2014-08-02 23:36:45,542 DEBUG [main] - GetPKID Query :SELECT A.PKID FROM CERTIFICATE A, CERTIFICATEHASHMAP B WHERE A.PKID=B.FKCERTIFICATE AND B.HASH = "/XB5QwYXgqrUTFZ2CDgT7BkSxNs=" 2014-08-02 23:36:45,542 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[0]connectToPubByDefault[true] 2014-08-02 23:36:45,542 DEBUG [main] - Try to get a connection from pool 2014-08-02 23:36:45,542 DEBUG [main] - Getting connection from connection pool entry <database,jdbcurl> 2014-08-02 23:36:45,542 DEBUG [main] - There is currently 1 connection pool entry 2014-08-02 23:36:45,543 DEBUG [main] - Checking if connection limit has been reached for database 2014-08-02 23:36:45,543 DEBUG [main] - Connecting to publisher so max number of connections allowed is 100 2014-08-02 23:36:45,543 DEBUG [main] - Number of connections in use is 0 2014-08-02 23:36:45,543 DEBUG [main] - There are currently 2 connection pool entries 2014-08-02 23:36:45,544 DEBUG [main] - Number of available connections in pool: 0 2014-08-02 23:36:45,590 DEBUG [main] - Adding connection <com.informix.jdbc.IfxSqlConnect@77eb97> to connection list 2014-08-02 23:36:45,590 DEBUG [main] - Marking connection <com.informix.jdbc.IfxSqlConnect@77eb97> as used 2014-08-02 23:36:45,590 DEBUG [main] - Got connection from pool 2014-08-02 23:36:45,596 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:45,599 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,599 INFO [main] - OUT -- CertDBImpl.java - getPkidOfCertificate - 2014-08-02 23:36:45,599 DEBUG [main] - Closing the connection. Connection HashCode:12578138 --Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-02 23:36:45,600 DEBUG [main] - Attempting to close connection 2014-08-02 23:36:45,600 DEBUG [main] - Removing connection <database, jdbcurl> from ConnectionManager list 2014-08-02 23:36:45,600 DEBUG [main] - removeConnectionFromConnectionList() 2014-08-02 23:36:45,600 DEBUG [main] - Removing connection <com.informix.jdbc.IfxSqlConnect@77eb97> from connection list 2014-08-02 23:36:45,600 DEBUG [main] - Connection <com.informix.jdbc.IfxSqlConnect@77eb97> is not closed, adding it back to the pool entry <database,jdbcurl> 2014-08-02 23:36:45,600 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,602 DEBUG [main] - Connection Initialized to Publisher. Connection HashCode:17578504 --Details:Connector(NOT CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-02 23:36:45,602 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[0]connectToPubByDefault[true] 2014-08-02 23:36:45,602 DEBUG [main] - Try to get a connection from pool 2014-08-02 23:36:45,602 DEBUG [main] - Getting connection from connection pool entry <database,jdbcurl> 2014-08-02 23:36:45,602 DEBUG [main] - There are currently 2 connection pool entries 2014-08-02 23:36:45,602 DEBUG [main] - Adding connection <com.informix.jdbc.IfxSqlConnect@77eb97> to connection list 2014-08-02 23:36:45,603 DEBUG [main] - Marking connection

```
<com.informix.jdbc.IfxSqlConnect@77eb97> as used 2014-08-02 23:36:45,603 DEBUG [main] - Got
connection from pool 2014-08-02 23:36:45,604 INFO [main] - IN -- CertDBImpl.java -
deleteCertFromCertSrvCertMap(con, serialNo, subjectName, serviceEnum) - ## you can see it here
... 2014-08-02 23:36:45,605 DEBUG [main] - Delete query of CERTIFICATESERVICECERTIFICATEMAP
:DELETE FROM CERTIFICATESERVICECERTIFICATEMAP WHERE TKCERTIFICATESERVICE = "6" AND FKCERTIFICATE
= "null" 2014-08-02 23:36:45,605 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-02
23:36:45,618 INFO [main] - OUT -- CertDBImpl.java - deleteCertFromCertSrvCertMap - 2014-08-02
23:36:45,618 INFO [main] - IN -- CertDBImpl.java - deleteCertFromCertProcessNodeMap(con,
certInfo) - ## here ... 2014-08-02 23:36:45,619 DEBUG [main] - Delete query of
CERTIFICATEPROCESSNODEMAP :DELETE FROM CERTIFICATEPROCESSNODEMAP WHERE FKCERTIFICATE="null" AND
SERVERNAME = "CUCM861" 2014-08-02 23:36:45,619 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-02
23:36:45,624 INFO [main] - OUT -- CertDBImpl.java - deleteCertFromCertProcessNodeMap - 2014-08-
02 23:36:45,624 DEBUG [main] - Certificate to be deleted UNIT: tomcat-trust :: RoleMoniker
:ROLE_APPLICATION_SERVER :: RoleEnum :7 :: ServiceEnum :6 2014-08-02 23:36:45,624 INFO [main] -
IN -- CertDBImpl.java - checkMultipleUnitForSameRole(con, roleMoniker, unit, certInfo) - 2014-
08-02 23:36:45,624 DEBUG [main] - checkMultipleUnitForSameRole : SELECT PKID,FKCERTIFICATE,
TKCERTIFICATESERVICE,NAME UNIT FROM CERTIFICATESERVICECERTIFICATEMAP,TYPECERTIFICATESERVICE
WHERE ENUM=TKCERTIFICATESERVICE AND FKCERTIFICATE ="null" AND NAME != "tomcat-trust" 2014-08-02
23:36:45,624 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-02
23:36:45,649 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:45,649 INFO [main] -
Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,649 INFO [main] - OUT --
CertDBImpl.java - checkMultipleUnitForSameRole - 2014-08-02 23:36:45,649 INFO [main] - IN --
CertDBImpl.java - deleteCertFromTypeTrustRole(con, certInfo, roleEnum) - ## and here 2014-08-02
23:36:45,649 DEBUG [main] - Delete query of CERTIFICATETRUSTROLEMAP :DELETE FROM
CERTIFICATETRUSTROLEMAP WHERE TKTRUSTROLE = "7" AND FKCERTIFICATE = "null" 2014-08-02
23:36:45,649 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-02
23:36:45,652 INFO [main] - OUT -- CertDBImpl.java - deleteCertFromTypeTrustRole - 2014-08-02
23:36:45,653 INFO [main] - IN -- CertDBImpl.java - checkMultipleCertForSrv(pkid, con) - 2014-08-
02 23:36:45,653 DEBUG [main] - checkMultipleCertForSrv : SELECT PKID,FKCERTIFICATE,
TKCERTIFICATESERVICE FROM CERTIFICATESERVICECERTIFICATEMAP WHERE FKCERTIFICATE = "null" 2014-08-
02 23:36:45,653 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-02
23:36:45,655 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:45,655 INFO [main] -
Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,655 INFO [main] - OUT --
CertDBImpl.java - checkMultipleCertForSrv - 2014-08-02 23:36:45,655 INFO [main] - IN --
CertDBImpl.java - checkMultipleCertForRole(certInfo, con) - 2014-08-02 23:36:45,655 DEBUG [main]
- checkMultipleCertForRole : SELECT PKID,FKCERTIFICATE, TKTRUSTROLE FROM CERTIFICATETRUSTROLEMAP
WHERE FKCERTIFICATE = "null" 2014-08-02 23:36:45,655 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-02
23:36:45,657 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:45,657 INFO [main] -
Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,657 INFO [main] - OUT --
CertDBImpl.java - checkMultipleCertForRole - 2014-08-02 23:36:45,657 INFO [main] - IN --
CertDBImpl.java - checkMultipleCertForProcessnode(certInfo, con) - 2014-08-02 23:36:45,657 DEBUG
[main] - checkMultipleCertForProcessnode : SELECT PKID,FKCERTIFICATE,FKPROCESSNODE,SERVERNAME
FROM CERTIFICATEPROCESSNODEMAP WHERE FKCERTIFICATE='null' 2014-08-02 23:36:45,658 DEBUG [main] -
getConn: usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-02
23:36:45,660 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:45,661 INFO [main] -
Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,661 INFO [main] - OUT --
CertDBImpl.java - checkMultipleCertForProcessnode - 2014-08-02 23:36:45,661 DEBUG [main] -
DELETE FLAG :: isSrvMap=false :: isRoleMap=false :: isProcessnodeMap=false 2014-08-02
23:36:45,661 INFO [main] - IN -- CertDBImpl.java - deleteCertificateBySerialNo(con, certInfo) -
## finally it tries to remove all certificates from CERTIFICATE table with null PKID.
## Nothing will be deleted of course. 2014-08-02 23:36:45,661 DEBUG [main] - Delete query of
CERTIFICATE :DELETE FROM CERTIFICATE WHERE PKID = "null" 2014-08-02 23:36:45,661 DEBUG [main] -
getConn: usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-02
23:36:45,664 INFO [main] - OUT -- CertDBImpl.java - deleteCertificateBySerialNo - 2014-08-02
23:36:45,664 DEBUG [main] - Connection committed for deleteCertificate.. 2014-08-02 23:36:45,664
DEBUG [main] - Closing the connection. Connection HashCode:17578504 --
Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-02 23:36:45,664 DEBUG
[main] - Attempting to close connection 2014-08-02 23:36:45,665 DEBUG [main] - Removing
```

```

connection <database, jdbcurl> from ConnectionManager list 2014-08-02 23:36:45,665 DEBUG [main]
- removeConnectionFromConnectionList() 2014-08-02 23:36:45,665 DEBUG [main] - Removing
connection <com.informix.jdbc.IfxSqlConnect@77eb97> from connection list 2014-08-02
23:36:45,665 DEBUG [main] - Connection <com.informix.jdbc.IfxSqlConnect@77eb97> is not closed,
adding it back to the pool entry <database,jdbcurl> 2014-08-02 23:36:45,665 INFO [main] -
Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,665 DEBUG [main] -
Connection released from CertDBImpl.deleteCertificate method. 2014-08-02 23:36:45,665 INFO
[main] - OUT -- CertDBImpl.java - deleteCertificate - 2014-08-02 23:36:45,665 INFO [main] - OUT
-- CertDBAction.java - deleteCertificateInDB - 2014-08-02 23:36:45,665 INFO [main] - OUT --
DefaultCertMgr.java - deleteDERandPEM - 2014-08-02 23:36:45,665 DEBUG [main] - deleteDERandPEM:
sCertDir = /usr/local/platform/.security/tomcat/trust-certs --- sAlias = CUCM861 2014-08-02
23:36:45,665 INFO [main] - IN -- TomcatCertMgr.java - removeFromKeyStore(..) - 2014-08-02
23:36:45,666 INFO [main] - IN -- RSACryptoEngine.java - removeFromKeyStore(keystoreFile,
keystorePass, alias) - 2014-08-02 23:36:45,666 INFO [main] - IN -- RSACryptoEngine.java -
loadKeyStore(keystoreFile, keystorePass) - 2014-08-02 23:36:45,846 INFO [main] - OUT --
RSACryptoEngine.java - loadKeyStore - ## old tomcat-trust certificate is being removed from key
store 2014-08-02 23:36:45,880 DEBUG [main] - Removing certificate from keystore : CUCM861 2014-
08-02 23:36:45,880 DEBUG [main] - Size of the keystore after delete is : 2 2014-08-02
23:36:45,880 INFO [main] - OUT -- RSACryptoEngine.java - removeFromKeyStore - 2014-08-02
23:36:45,880 INFO [main] - OUT -- TomcatCertMgr.java - removeFromKeyStore - 2014-08-02
23:36:45,882 INFO [main] - trustdir ::/usr/local/platform/.security/tomcat/trust-certs 2014-08-
02 23:36:45,883 INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:45,883
DEBUG [main] - Executing command from Util.sysExec : python /usr/local/platform/bin/c_rehash.py
/usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:45,993 INFO [main] - OUT --
Util.java - sysExec - 2014-08-02 23:36:45,995 INFO [main] - IN -- DefaultCertMgr.java -
setOwnershipAndPermissions(file) - 2014-08-02 23:36:45,995 DEBUG [main] -
setOwnershipAndPermissions : trust-certs 2014-08-02 23:36:45,995 DEBUG [main] - Changing
ownership of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-02 23:36:45,995
INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:45,996 DEBUG [main] -
Executing command from Util.sysExec : /bin/chown -R certbase
/usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,005 INFO [main] - OUT --
Util.java - sysExec - 2014-08-02 23:36:46,010 DEBUG [main] - Changing group ownership of file
'/usr/local/platform/.security/tomcat/trust-certs' 2014-08-02 23:36:46,010 INFO [main] - IN --
Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,010 DEBUG [main] - Executing command from
Util.sysExec : /bin/chgrp -R ccmbase /usr/local/platform/.security/tomcat/trust-certs 2014-08-02
23:36:46,020 INFO [main] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,020 DEBUG [main] -
Changing mode of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-02 23:36:46,020
INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,020 DEBUG [main] -
Executing command from Util.sysExec : /bin/chmod -R 755
/usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,027 INFO [main] - OUT --
Util.java - sysExec - 2014-08-02 23:36:46,027 INFO [main] - OUT -- DefaultCertMgr.java -
setOwnershipAndPermissions - 2014-08-02 23:36:46,027 INFO [main] - OUT -- DefaultCertMgr.java -
deleteCert - 2014-08-02 23:36:46,027 INFO [main] - OUT -- TomcatCertMgr.java -
deleteCertFromTomcatTrustStore -

```

**e.现在您没有在文件系统的Tomcat托拉斯cert。CM将创建它并且再进口它到信任存储：**

```

2014-08-02 23:36:46,027 INFO [main] - IN -- TomcatCertMgr.java -
importCertToTomcatTrustStore(info) -
2014-08-02 23:36:46,028 INFO [main] - IN -- DefaultCertMgr.java - importCert(info) -
decode:      true
op:          import
unit:        tomcat-trust
keystoreUnit:tomcat-trust
logFile:     /var/log/active/platform/log/cert-mgmt.log
resultFile:  /var/log/active/platform/log/certde-info.xml
keyDir:      /usr/local/platform/.security/tomcat/keys
certDir:     /usr/local/platform/.security/tomcat/trust-certs
srcCert:     /usr/local/platform/.security/tomcat/certs/tomcat.pem
type:        trust-certs
rootCACert:  null
trustDir:    null
DNNAME:      CN=CUCM861,OU=TAC,O=CISCO,L=KRAKOW,ST=MALOPOLSKA,C=PL
description:Trust Certificate

```



isDBInsert:true

```
2014-08-02 23:36:46,028 INFO [main] - IN -- DefaultCertMgr.java - loadInputCert(info) -
2014-08-02 23:36:46,028 INFO [main] - IN -- RSACryptoEngine.java - loadCertificates(..) -
2014-08-02 23:36:46,028 INFO [main] - IN -- RSACryptoEngine.java - loadCertificate(..) -
2014-08-02 23:36:46,029 INFO [main] - OUT -- RSACryptoEngine.java - loadCertificate -
2014-08-02 23:36:46,030 INFO [main] - OUT -- RSACryptoEngine.java - loadCertificates -
2014-08-02 23:36:46,030 INFO [main] - OUT -- DefaultCertMgr.java - loadInputCert - Successfully
loaded input cert
2014-08-02 23:36:46,030 DEBUG [main] - Checking validity of cert
2014-08-02 23:36:46,030 INFO [main] - Verifying certificate
L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL
2014-08-02 23:36:46,030 INFO [main] - IN -- CertUtil.java - parseCNfromDN(DN, sSearchStr) -
2014-08-02 23:36:46,030 DEBUG [main] - parseCNfromDN( certSubjDN:
'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL')
2014-08-02 23:36:46,030 DEBUG [main] - Truncating CN 'CUCM861,OU=TAC,O=CISCO,C=PL' -> 'CUCM861'
2014-08-02 23:36:46,030 INFO [main] - OUT -- CertUtil.java - parseCNfromDN -
2014-08-02 23:36:46,030 DEBUG [main] - Parsed CN 'CUCM861' from DN
'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL'
```

```
## certificate is being created on the filesystem 2014-08-02 23:36:46,030 INFO [main] - trying
to load cert from trust store :/usr/local/platform/.security/tomcat/trust-certs/CUCM861.pem
2014-08-02 23:36:46,030 INFO [main] - cert not available in trust store
::L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL 2014-08-02 23:36:46,031 INFO [main] - IN
-- DefaultCertMgr.java - importTrustCert(info, cert) - 2014-08-02 23:36:46,031 INFO [main] - IN
-- DefaultCertMgr.java - saveToTrustStore(info, cert) - 2014-08-02 23:36:46,031 ERROR [main] -
trust directory parameter is null 2014-08-02 23:36:46,031 INFO [main] - IN --
DefaultCertMgr.java - saveTrustCert(cert, targetDir, certType) - 2014-08-02 23:36:46,031 INFO
[main] - IN -- CertUtil.java - parseCNfromDN(DN, sSearchStr) - 2014-08-02 23:36:46,031 DEBUG
[main] - parseCNfromDN( certSubjDN: 'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL')
2014-08-02 23:36:46,031 DEBUG [main] - Truncating CN 'CUCM861,OU=TAC,O=CISCO,C=PL' -> 'CUCM861'
2014-08-02 23:36:46,031 INFO [main] - OUT -- CertUtil.java - parseCNfromDN - 2014-08-02
23:36:46,031 DEBUG [main] - Parsed CN 'CUCM861' from DN
'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL' 2014-08-02 23:36:46,031 INFO [main] - IN
-- CertUtil.java - parseCNfromDN(DN, sSearchStr) - 2014-08-02 23:36:46,031 DEBUG [main] -
parseCNfromDN( certSubjDN: 'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL') 2014-08-02
23:36:46,031 DEBUG [main] - Truncating CN 'CUCM861,OU=TAC,O=CISCO,C=PL' -> 'CUCM861' 2014-08-02
23:36:46,031 INFO [main] - OUT -- CertUtil.java - parseCNfromDN - 2014-08-02 23:36:46,031 DEBUG
[main] - Parsed CN 'CUCM861' from DN 'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL'
2014-08-02 23:36:46,031 DEBUG [main] - target filename for imported cert: 'CUCM861.pem' 2014-08-
02 23:36:46,032 DEBUG [main] - existing certificate with same filename not found. 2014-08-02
23:36:46,032 DEBUG [main] - Saving PEM encoded cert '/usr/local/platform/.security/tomcat/trust-
certs/CUCM861.pem' 2014-08-02 23:36:46,032 INFO [main] - IN -- CryptoUtil.java - saveAsPEM(..) -
File : /usr/local/platform/.security/tomcat/trust-certs/CUCM861.pem 2014-08-02 23:36:46,032 INFO
[main] - OUT -- CryptoUtil.java - saveAsPEM - 2014-08-02 23:36:46,033 DEBUG [main] - Saving DER
encoded cert '/usr/local/platform/.security/tomcat/trust-certs/CUCM861.der' 2014-08-02
23:36:46,033 INFO [main] - OUT -- DefaultCertMgr.java - saveTrustCert - 2014-08-02 23:36:46,033
INFO [main] - IN -- TomcatCertMgr.java - saveToKeyStore(..) - 2014-08-02 23:36:46,033 INFO
[main] - IN -- RSACryptoEngine.java - saveToKeyStore(keystoreFile, keystorePass,
x509Certificate, alias) - 2014-08-02 23:36:46,033 INFO [main] - IN -- RSACryptoEngine.java -
loadKeyStore(keystoreFile, keystorePass) - 2014-08-02 23:36:46,050 INFO [main] - OUT --
RSACryptoEngine.java - loadKeyStore - 2014-08-02 23:36:46,050 INFO [main] - Size of the keystore
before import is : 2 2014-08-02 23:36:46,050 INFO [main] - Importing certificate : CUCM861 2014-
08-02 23:36:46,061 INFO [main] - Size of the keystore after import is : 3 2014-08-02
23:36:46,061 INFO [main] - OUT -- RSACryptoEngine.java - saveToKeyStore - 2014-08-02
23:36:46,061 INFO [main] - OUT -- TomcatCertMgr.java - saveToKeyStore - 2014-08-02 23:36:46,062
DEBUG [main] - TrustCert description filename : 'CUCM861.description' 2014-08-02 23:36:46,062
INFO [main] - IN -- DefaultCertMgr.java - createDescriptionFile(name, description) - 2014-08-02
23:36:46,062 INFO [main] - description is :Trust Certificate 2014-08-02 23:36:46,062 INFO [main]
- OUT -- DefaultCertMgr.java - createDescriptionFile - 2014-08-02 23:36:46,062 INFO [main] - IN
-- DefaultCertMgr.java - setOwnershipAndPermissions(file) - 2014-08-02 23:36:46,062 DEBUG [main]
- setOwnershipAndPermissions : CUCM861.description 2014-08-02 23:36:46,063 DEBUG [main] -
Changing ownership of file '/usr/local/platform/.security/tomcat/trust-
certs/CUCM861.description' 2014-08-02 23:36:46,063 INFO [main] - IN -- Util.java - sysExec(exe,
```

```
args) - 2014-08-02 23:36:46,063 DEBUG [main] - Executing command from Util.sysExec : /bin/chown
certbase /usr/local/platform/.security/tomcat/trust-certs/CUCM861.description 2014-08-02
23:36:46,066 INFO [main] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,066 DEBUG [main] -
Changing group ownership of file '/usr/local/platform/.security/tomcat/trust-
certs/CUCM861.description' 2014-08-02 23:36:46,067 INFO [main] - IN -- Util.java - sysExec(exe,
args) - 2014-08-02 23:36:46,067 DEBUG [main] - Executing command from Util.sysExec : /bin/chgrp
ccmbase /usr/local/platform/.security/tomcat/trust-certs/CUCM861.description 2014-08-02
23:36:46,069 INFO [main] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,069 DEBUG [main] -
Changing mode of file '/usr/local/platform/.security/tomcat/trust-certs/CUCM861.description'
2014-08-02 23:36:46,069 INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-02
23:36:46,069 DEBUG [main] - Executing command from Util.sysExec : /bin/chmod 755
/usr/local/platform/.security/tomcat/trust-certs/CUCM861.description 2014-08-02 23:36:46,073
INFO [main] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,073 INFO [main] - OUT --
DefaultCertMgr.java - setOwnershipAndPermissions - 2014-08-02 23:36:46,073 INFO [main] - OUT --
DefaultCertMgr.java - saveToTrustStore - 2014-08-02 23:36:46,074 INFO [main] - trustdir
::/usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,074 INFO [main] - IN --
Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,074 DEBUG [main] - Executing command from
Util.sysExec : python /usr/local/platform/bin/c_rehash.py
/usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,140 INFO [main] - OUT --
Util.java - sysExec - 2014-08-02 23:36:46,140 INFO [main] - IN -- DefaultCertMgr.java -
setOwnershipAndPermissions(file) - 2014-08-02 23:36:46,140 DEBUG [main] -
setOwnershipAndPermissions : trust-certs 2014-08-02 23:36:46,141 DEBUG [main] - Changing
ownership of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-02 23:36:46,141
INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,141 DEBUG [main] -
Executing command from Util.sysExec : /bin/chown -R certbase
/usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,144 INFO [main] - OUT --
Util.java - sysExec - 2014-08-02 23:36:46,144 DEBUG [main] - Changing group ownership of file
'/usr/local/platform/.security/tomcat/trust-certs' 2014-08-02 23:36:46,144 INFO [main] - IN --
Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,144 DEBUG [main] - Executing command from
Util.sysExec : /bin/chgrp -R ccmbase /usr/local/platform/.security/tomcat/trust-certs 2014-08-02
23:36:46,147 INFO [main] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,147 DEBUG [main] -
Changing mode of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-02 23:36:46,148
INFO [main] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,148 DEBUG [main] -
Executing command from Util.sysExec : /bin/chmod -R 755
/usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,152 INFO [main] - OUT --
Util.java - sysExec - 2014-08-02 23:36:46,152 INFO [main] - OUT -- DefaultCertMgr.java -
setOwnershipAndPermissions - 2014-08-02 23:36:46,152 INFO [main] - IN -- CertUtil.java -
populateCertInfo(cert, opInfo, certFilePemLocation) - 2014-08-02 23:36:46,156 INFO [main] - IN -
- CertUtil.java - getHostName(..) - 2014-08-02 23:36:46,156 INFO [main] - OUT -- CertUtil.java -
getHostName - CUCM861 2014-08-02 23:36:46,156 INFO [main] - IN -- CryptoUtil.java -
saveAsPEM(..) - 2014-08-02 23:36:46,157 INFO [main] - OUT -- CryptoUtil.java - saveAsPEM - 2014-
08-02 23:36:46,157 INFO [main] - OUT -- CertUtil.java - populateCertInfo -
```

现在新建的Tomcat托拉斯是回到在文件系统。什么左是验证它在DB存在和，如果未命中，添加对应的条目。

```
2014-08-02 23:36:46,157 INFO [main] - IN -- CertDBAction.java -
insertCertificateInDB(certFiletoStore, info) -
2014-08-02 23:36:46,157 INFO [main] -
```

DBParameters ...

PKID :null

CN :L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL

serialNo :42c86b2cf293630fe27bbddc7fd02a39

hostName :CUCM861

issuerName :L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL

Certificate :Not Printing huge Certificate String..

IPV4Address :10.48.46.29

IPV6Address :

TimeToLive :NULL

UNIT :tomcat-trust

TYPE :trust-certs

ROLE :null

RoleMoniker :null

RoleEnum :null  
SERVICE :null  
ServiceMoniker :null  
ServiceEnum :0

```
2014-08-02 23:36:46,157 INFO [main] - DB - Certifciate Store Plugin Handler is
:com.cisco.ccm.certmgmt.db.CertDBImpl
2014-08-02 23:36:46,159 DEBUG [main] - Connection Initialized to Publisher. Connection
HashCode:23817301 --Details:Connector(NOT CONNECTED: Driver=com.informix.jdbc.IfxDriver;)
2014-08-02 23:36:46,159 INFO [main] - IN -- CertDBImpl.java - insertCertificate(certInfo, con) -
2014-08-02 23:36:46,159 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true]
2014-08-02 23:36:46,159 DEBUG [main] - Try to get a connection from pool
2014-08-02 23:36:46,159 DEBUG [main] - Getting connection from connection pool entry
<database,jdbcurl>
2014-08-02 23:36:46,159 DEBUG [main] - There are currently 2 connection pool entries
2014-08-02 23:36:46,159 DEBUG [main] - Adding connection
<com.informix.jdbc.IfxSqlConnect@77eb97> to connection list
2014-08-02 23:36:46,159 DEBUG [main] - Marking connection
<com.informix.jdbc.IfxSqlConnect@77eb97> as used
2014-08-02 23:36:46,159 DEBUG [main] - Got connection from pool
2014-08-02 23:36:46,166 INFO [main] - IN -- CertDBImpl.java -
populateRoleEnumServiceEnum(certInfo) -
2014-08-02 23:36:46,166 INFO [main] - UNIT ::: tomcat-trust
2014-08-02 23:36:46,166 INFO [main] - role ::: [ROLE_APPLICATION_SERVER]
2014-08-02 23:36:46,166 INFO [main] - roleEnum ::: [7]
2014-08-02 23:36:46,166 INFO [main] - service ::: null
2014-08-02 23:36:46,166 INFO [main] - serviceEnum ::: 6
2014-08-02 23:36:46,166 INFO [main] - OUT -- CertDBImpl.java - populateRoleEnumServiceEnum -
2014-08-02 23:36:46,166 INFO [main] - IN -- CertDBUtil.java - getProcessNodeId(con, hostName,
ipAddress, fqdn) -
2014-08-02 23:36:46,166 INFO [main] - getProcessNodeId Query :SELECT PKID,NAME FROM PROCESSNODE
WHERE UPPER(NAME)=UPPER("CUCM861") OR UPPER(NAME)=UPPER("10.48.46.29") OR
UPPER(NAME)=UPPER("CUCM861")
2014-08-02 23:36:46,166 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true]
2014-08-02 23:36:46,172 INFO [main] - ProcessNodeId:13f4b0d9-0bae-429a-a86e-625336a35bb6
2014-08-02 23:36:46,172 DEBUG [main] - Closing the resultset.
2014-08-02 23:36:46,173 INFO [main] - Connection/Statement/Resultset is closed properly.
2014-08-02 23:36:46,173 INFO [main] - OUT -- CertDBUtil.java - getProcessNodeId -
2014-08-02 23:36:46,173 INFO [main] - IN -- CertDBImpl.java - getPkidOfCertificate(hash,
serverName, con) -
2014-08-02 23:36:46,173 DEBUG [main] - GetPKID Query :SELECT A.PKID FROM CERTIFICATE A,
CERTIFICATEHASHMAP B WHERE A.PKID=B.FKCERTIFICATE AND B.HASH = "/hSVsEZT+yZeaxE+k0EM02n1Pgk="
2014-08-02 23:36:46,173 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true]
2014-08-02 23:36:46,177 DEBUG [main] - Closing the resultset.
2014-08-02 23:36:46,177 INFO [main] - Connection/Statement/Resultset is closed properly.
2014-08-02 23:36:46,177 INFO [main] - OUT -- CertDBImpl.java - getPkidOfCertificate -
2014-08-02 23:36:46,177 DEBUG [main] - INSERT FLAG :: isCertUpdate=false :: doNothing=false
2014-08-02 23:36:46,177 DEBUG [main] - INSERT/UPDATE Query of CERTIFICATE : null
2014-08-02 23:36:46,177 INFO [main] - IN -- CertDBImpl.java - insertCertSrvCertMap(certInfo,
con) -
2014-08-02 23:36:46,177 INFO [main] - IN -- CertDBImpl.java -
checkExistingCertificateServiceMapping(certInfo, serviceEnum, con) -
```

```
## CM checks CERTIFICATESERVICECERTIFICATEMAP table if the mapping for our cert exist. 2014-08-
02 23:36:46,178 DEBUG [main] - checkExistingTrustCertificateForService Query :SELECT
PKID,FKCERTIFICATE, TKCERTIFICATESERVICE FROM CERTIFICATESERVICECERTIFICATEMAP WHERE
FKCERTIFICATE = "533dbbfc-78ce-b46f-7d64-cd2b7c536f6d" AND TKCERTIFICATESERVICE= "6" 2014-08-02
23:36:46,178 DEBUG [main] - getConn:
usePooling[true]connectToLocalDB[false]_target[0]connectToPubByDefault[true] 2014-08-02
23:36:46,184 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:46,184 INFO [main] -
Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:46,184 INFO [main] - OUT --
```

CertDBImpl.java - checkExistingCertificateServiceMapping - 2014-08-02 23:36:46,184 DEBUG [main] - Certificate to be inserted in CERTIFICATESSERVICECERTIFICATEMAP table :tomcat-trust ::PKID :533dbbfc-78ce-b46f-7d64-cd2b7c536f6d ::toInsertInCertSrvMap:false **## since it has not been previousy removed it is there** 2014-08-02 23:36:46,185 DEBUG [main] - CertService mapping entry already exists.. 2014-08-02 23:36:46,185 INFO [main] - OUT -- CertDBImpl.java - insertCertSrvCertMap - 2014-08-02 23:36:46,185 INFO [main] - IN -- CertDBImpl.java - insertCertTrustRoleMap(certInfo, log, con) - 2014-08-02 23:36:46,185 INFO [main] - IN -- CertDBImpl.java - checkExistingCertificateRoleMapping(certInfo, roleEnum, con) - **## the same is being checked for CERTIFICATESTRUSTROLEMAP table ...** 2014-08-02 23:36:46,185 DEBUG [main] - checkExistingTrustCertificateForRole Query :SELECT PKID,FKCERTIFICATE, TKTRUSTROLE FROM CERTIFICATESTRUSTROLEMAP WHERE FKCERTIFICATE = "533dbbfc-78ce-b46f-7d64-cd2b7c536f6d" AND TKTRUSTROLE= "7" 2014-08-02 23:36:46,185 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[0]connectToPubByDefault[true] 2014-08-02 23:36:46,187 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:46,188 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:46,188 INFO [main] - OUT -- CertDBImpl.java - checkExistingCertificateRoleMapping - 2014-08-02 23:36:46,188 DEBUG [main] - Certificate to be inserted in CERTIFICATESTRUSTROLEMAP table :tomcat-trust ::PKID :533dbbfc-78ce-b46f-7d64-cd2b7c536f6d ::toInsertInCertSrvMap:false **## it exists also here** 2014-08-02 23:36:46,188 DEBUG [main] - CertRole mapping entry already exists.. 2014-08-02 23:36:46,188 INFO [main] - OUT -- CertDBImpl.java - insertCertTrustRoleMap - 2014-08-02 23:36:46,188 INFO [main] - IN -- CertDBImpl.java - insertCertProcessNodeMap(certInfo, con) - 2014-08-02 23:36:46,188 INFO [main] - IN -- CertDBImpl.java - checkExistingCertProcessNodeMapping(certInfo, con) - 2014-08-02 23:36:46,188 DEBUG [main] - checkExistingCertProcessNodeMapping Query :SELECT PKID,FKCERTIFICATE, FKPROCESSNODE,SERVERNAME FROM CERTIFICATEPROCESSNODEMAP WHERE FKCERTIFICATE="533dbbfc-78ce-b46f-7d64-cd2b7c536f6d" AND FKPROCESSNODE="13f4b0d9-0bae-429a-a86e-625336a35bb6" AND SERVERNAME="CUCM861" 2014-08-02 23:36:46,188 DEBUG [main] - getConn: usePooling[true]connectToLocalDB[false]\_target[0]connectToPubByDefault[true] 2014-08-02 23:36:46,190 DEBUG [main] - Closing the resultset. 2014-08-02 23:36:46,191 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:46,191 INFO [main] - OUT -- CertDBImpl.java - checkExistingCertProcessNodeMapping - 2014-08-02 23:36:46,191 DEBUG [main] - CertProcessNode mapping entry already exists.. 2014-08-02 23:36:46,191 INFO [main] - OUT -- CertDBImpl.java - insertCertProcessNodeMap - 2014-08-02 23:36:46,191 DEBUG [main] - Connection committed for insertCertificate.. **## since no entries in DB were missing Insertion finishes.** 2014-08-02 23:36:46,191 DEBUG [main] - Insertion of Certificate in DB is Successful. 2014-08-02 23:36:46,191 INFO [main] - OUT -- CertDBImpl.java - insertCertificate - 2014-08-02 23:36:46,192 DEBUG [main] - Closing the connection. Connection HashCode:23817301 -- Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-02 23:36:46,192 DEBUG [main] - Attempting to close connection 2014-08-02 23:36:46,192 DEBUG [main] - Removing connection <database, jdbcurl> from ConnectionManager list 2014-08-02 23:36:46,192 DEBUG [main] - removeConnectionFromConnectionList() 2014-08-02 23:36:46,192 DEBUG [main] - Removing connection <com.informix.jdbc.IfxSqlConnect@77eb97> from connection list 2014-08-02 23:36:46,192 DEBUG [main] - Connection <com.informix.jdbc.IfxSqlConnect@77eb97> is not closed, adding it back to the pool entry <database,jdbcurl> 2014-08-02 23:36:46,192 INFO [main] - Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:46,192 INFO [main] - DB - Generate Certificate operation in DB is successful 2014-08-02 23:36:46,192 INFO [main] - OUT -- CertDBAction.java - insertCertificateInDB - 2014-08-02 23:36:46,192 INFO [main] - IN -- CryptoUtil.java - isOCSPEnabled(..) - 2014-08-02 23:36:46,192 INFO [main] - IN -- CryptoUtil.java - getCertMonitorXmlParser(..) - 2014-08-02 23:36:46,203 INFO [main] - OUT -- CryptoUtil.java - getCertMonitorXmlParser - 2014-08-02 23:36:46,203 INFO [main] - OUT -- CryptoUtil.java - isOCSPEnabled - false 2014-08-02 23:36:46,203 DEBUG [main] - OCSP is not enabled. 2014-08-02 23:36:46,204 INFO [main] - Successfully imported trusted certificate with Subject DN:L&#61;KRAKOW,ST&#61;MALOPOLSKA,CN&#61;CUCM861,OU&#61;TAC,O&#61;CISCO,C&#61;PL 2014-08-02 23:36:46,204 INFO [main] - OUT -- DefaultCertMgr.java - importTrustCert - Successfully imported trusted certificate with Subject DN:L&#61;KRAKOW,ST&#61;MALOPOLSKA,CN&#61;CUCM861,OU&#61;TAC,O&#61;CISCO,C&#61;PL **## at this moment importing the tomcat-trust ends. CM finishes adding tomcat-trust to the ## trust store and removes CSR file if any.** 2014-08-02 23:36:46,204 INFO [main] - result of import operations is ::Import of trust certificate is successful 2014-08-02 23:36:46,204 INFO [main] - OUT -- DefaultCertMgr.java - importCert - 2014-08-02 23:36:46,204 INFO [main] - OUT -- TomcatCertMgr.java - importCertToTomcatTrustStore - 2014-08-02 23:36:46,204 INFO [main] - Tomcat Self-signed certificate copied in Tomcat trust-store successfully 2014-08-02 23:36:46,204 INFO [main] - OUT -- TomcatCertMgr.java - copyToTomcatTrustStore - 2014-08-02 23:36:46,204 DEBUG [main] - GenCert returned 2014-08-02 23:36:46,204 DEBUG [main] - CSR FileName is tomcat-trust.csr 2014-08-02 23:36:46,204 DEBUG [main] - CSR File Deleted:

```
/usr/local/platform/.security/tomcat/keys/tomcat-trust.csr 2014-08-02 23:36:46,204 INFO [main] -
Delete CSR File: /usr/local/platform/.security/tomcat/keys/tomcat-trust.csr 2014-08-02
23:36:46,204 DEBUG [main] - Private Key in DER Form is: tomcat-trust_priv_csr.der 2014-08-02
23:36:46,204 DEBUG [main] - PEM Key in PEM form is:tomcat-trust_priv_csr.pem 2014-08-02
23:36:46,206 INFO [main] - OUT -- DefaultCertMgr.java - regenCert - 2014-08-02 23:36:46,206 INFO
[main] - IN -- CertMgr.java - logResult(result, desc, resultFile) - 2014-08-02 23:36:46,206 INFO
[main] - CertMgmt Operation Result : null 2014-08-02 23:36:46,207 INFO [main] - OUT --
CertMgr.java - logResult - 2014-08-02 23:36:46,207 INFO [main] - OUT -- CertMgr.java - doOp -
2014-08-02 23:36:46,207 INFO [main] - OUT -- CertMgr.java - mainIntenal -
```

CM角色结束此处。请看一看在certCN注册发行商节点。因为它订阅对DB修改提示将通知关于在证书表上的证书变化。

```
2014-08-02 23:36:45,605 INFO [Thread-5] - IN - process. changeData &colon;
2014-08-02 23:36:45,607 INFO [Thread-5] - Inside CERTIFICATE - I/U option..
2014-08-02 23:36:45,607 DEBUG [Thread-5] - Updated Data in CERTIFICATE
::<msg><type>DBL</type><table>certificate</table><tableid>41</tableid><action>U</action><time>14
07015405</time><old><cdrserver>2</cdrserver><cdrtime>1407012599</cdrtime><pkid>533dbbfc-78ce-
b46f-7d64-
cd2b7c536f6d</pkid><servername>CUCM861</servername><subjectname>L=KRAKOW,ST=MALOPOLSKA,CN=CUCM86
1,OU=TAC,O=CISCO,C=PL</subjectname><issuename>L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,
C=PL</issuename><serialnumber>6cf5bc855b681f658f9e7506d3ec6ea5</serialnumber><certificate></cer
tificate><ipv4address>10.48.46.29</ipv4address><ipv6address></ipv6address><timetolive>NULL</time
tolive><ifx_replcheck>6043073097765093380</ifx_replcheck></old><new><servername>CUCM861</servern
ame><subjectname>L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL</subjectname><issuename>
L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL</issuename><serialnumber>42c86b2cf293630f
e27bbddc7fd02a39</serialnumber><certificate>changed</certificate><ipv4address>10.48.46.29</ipv4a
ddress><ipv6address></ipv6address><timetolive>NULL</timetolive></new></msg>
2014-08-02 23:36:45,607 DEBUG [Thread-5] - Certificate PKID : 533dbbfc-78ce-b46f-7d64-
cd2b7c536f6d , ipAddress : 10.48.46.29 , OldSerialNo : 6cf5bc855b681f658f9e7506d3ec6ea5 ,
NewSerialNo : 42c86b2cf293630fe27bbddc7fd02a39
2014-08-02 23:36:45,607 INFO [Thread-5] - OUT - process.
2014-08-02 23:36:45,608 INFO [InsertThread --- 7] - IN -- CertKeystoreHandler.java - run() -
2014-08-02 23:36:45,609 DEBUG [InsertThread --- 7] - InsertThread --- 7 -- START --
```

```
## getting PKID for which the change occurred
2014-08-02 23:36:45,609 DEBUG [InsertThread --- 7] - DB Value UPDATE: 533dbbfc-78ce-b46f-7d64-
cd2b7c536f6d
2014-08-02 23:36:45,609 INFO [InsertThread --- 7] - IN -- CertKeystoreHandler.java -
updateIntoKeystore() -
2014-08-02 23:36:45,610 INFO [InsertThread --- 7] - IN -- CertDBImpl.java -
getCertificate(certBash64SHAL:null --pkid:533dbbfc-78ce-b46f-7d64-cd2b7c536f6d
2014-08-02 23:36:45,611 DEBUG [InsertThread --- 7] - Connection Initialized to localnode.
Connection HashCode:22502526 --Details:Connector(NOT CONNECTED:
Driver=com.informix.jdbc.IfxDriver;)
2014-08-02 23:36:45,611 DEBUG [InsertThread --- 7] - Select Query to getCertificate :SELECT
A.*,B.HASH FROM CERTIFICATE A, CERTIFICATEHASHMAP B WHERE A.PKID=B.FKCERTIFICATE AND A.PKID =
"533dbbfc-78ce-b46f-7d64-cd2b7c536f6d"
2014-08-02 23:36:45,611 DEBUG [InsertThread --- 7] - getConn:
usePooling[true]connectToLocalDB[true]_target[0]connectToPubByDefault[false]
2014-08-02 23:36:45,611 DEBUG [InsertThread --- 7] - Got connection from pool
2014-08-02 23:36:45,681 DEBUG [InsertThread --- 7] - Closing the resultset.
2014-08-02 23:36:45,681 DEBUG [InsertThread --- 7] - Closing the connection. Connection
HashCode:22502526 --Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;)
2014-08-02 23:36:45,681 DEBUG [InsertThread --- 7] - Attempting to close connection
2014-08-02 23:36:45,681 DEBUG [InsertThread --- 7] - Removing connection <database, jdbcurl2>
from ConnectionManager list
2014-08-02 23:36:45,681 DEBUG [InsertThread --- 7] - removeConnectionFromConnectionList()
2014-08-02 23:36:45,681 DEBUG [InsertThread --- 7] - Removing connection
<com.informix.jdbc.IfxSqlConnect@lccblae> from connection list
2014-08-02 23:36:45,682 DEBUG [InsertThread --- 7] - Connection
<com.informix.jdbc.IfxSqlConnect@lccblae> is not closed, adding it back to the pool entry
<database, jdbcurl2>
2014-08-02 23:36:45,682 INFO [InsertThread --- 7] - Connection/Statement/Resultset is closed
```

properly.

```
2014-08-02 23:36:45,682 DEBUG [InsertThread --- 7] - Connection released from
CertDBImpl.getCertificate method.
2014-08-02 23:36:45,682 INFO [InsertThread --- 7] - OUT -- CertDBImpl.java - getCertificate -
2014-08-02 23:36:45,682 INFO [InsertThread --- 7] - IN -- CertDBImpl.java -
getCertUnitByPkid(pkid) -
2014-08-02 23:36:45,683 DEBUG [InsertThread --- 7] - Connection Initialized to localnode.
Connection HashCode:25877029 --Details:Connector(NOT CONNECTED:
Driver=com.informix.jdbc.IfxDriver;)

## getting info about changed certificate 2014-08-02 23:36:45,684 DEBUG [InsertThread --- 7] -
Select Query to getCertUnitByPkid :SELECT A.PKID, A.FKCERTIFICATE, A.TKCERTIFICATESERVICE,
B.NAME UNIT FROM CERTIFICATESERVICECERTIFICATEMAP A, TYPECERTIFICATESERVICE B WHERE
A.FKCERTIFICATE="533dbbfc-78ce-b46f-7d64-cd2b7c536f6d" AND A.TKCERTIFICATESERVICE = B.ENUM 2014-
08-02 23:36:45,684 DEBUG [InsertThread --- 7] - getConn:
usePooling[true]connectToLocalDB[true]_target[0]connectToPubByDefault[false] 2014-08-02
23:36:45,684 DEBUG [InsertThread --- 7] - Try to get a connection from pool 2014-08-02
23:36:45,684 DEBUG [InsertThread --- 7] - getting local connection from Pool 2014-08-02
23:36:45,684 DEBUG [InsertThread --- 7] - Getting connection from connection pool entry
<database,jdbcurl2> 2014-08-02 23:36:45,684 DEBUG [InsertThread --- 7] - There are currently 2
connection pool entries 2014-08-02 23:36:45,684 DEBUG [InsertThread --- 7] - Adding connection
<com.informix.jdbc.IfxSqlConnect@lccblae> to connection list 2014-08-02 23:36:45,684 DEBUG
[InsertThread --- 7] - Marking connection <com.informix.jdbc.IfxSqlConnect@lccblae> as used
2014-08-02 23:36:45,684 DEBUG [InsertThread --- 7] - Got connection from pool 2014-08-02
23:36:45,687 DEBUG [InsertThread --- 7] - Closing the resultset. 2014-08-02 23:36:45,688 DEBUG
[InsertThread --- 7] - Closing the connection. Connection HashCode:25877029 --
Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-02 23:36:45,688 DEBUG
[InsertThread --- 7] - Attempting to close connection 2014-08-02 23:36:45,688 DEBUG
[InsertThread --- 7] - Removing connection <database, jdbcurl2> from ConnectionManager list
2014-08-02 23:36:45,688 DEBUG [InsertThread --- 7] - removeConnectionFromConnectionList() 2014-
08-02 23:36:45,688 DEBUG [InsertThread --- 7] - Removing connection
<com.informix.jdbc.IfxSqlConnect@lccblae> from connection list 2014-08-02 23:36:45,688 DEBUG
[InsertThread --- 7] - Connection <com.informix.jdbc.IfxSqlConnect@lccblae> is not closed,
adding it back to the pool entry <database,jdbcurl2> 2014-08-02 23:36:45,688 INFO [InsertThread
--- 7] - Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:45,688 DEBUG
[InsertThread --- 7] - Resultset released from CertDBImpl.getCertUnitByPkid method. 2014-08-02
23:36:45,688 INFO [InsertThread --- 7] - OUT -- CertDBImpl.java - getCertUnitByPkid - 2014-08-02
23:36:45,688 INFO [InsertThread --- 7] - UNIT : tomcat 2014-08-02 23:36:45,688 INFO
[InsertThread --- 7] - CurrentIPAddress : 10.48.46.29 2014-08-02 23:36:45,688 INFO [InsertThread
--- 7] - RemoteIPAddress : 10.48.46.29 2014-08-02 23:36:45,688 INFO [InsertThread --- 7] -
OldSerialNo :6cf5bc855b681f658f9e7506d3ec6ea5 2014-08-02 23:36:45,688 INFO [InsertThread --- 7]
- NewSerialNo :42c86b2cf293630fe27bbddc7fd02a39 2014-08-02 23:36:45,688 INFO [InsertThread ---
7] - IN -- CertUtil.java - getListFromComaSeperatedStr(..) - 2014-08-02 23:36:45,688 INFO
[InsertThread --- 7] - OUT -- CertUtil.java - getListFromComaSeperatedStr - ## as you know
tomcat and tomcat-trust certificates are covered by change notification.
## Since both ones has been properly updated by CM service there is nothing to do for the ##
certCN service here. 2014-08-02 23:36:45,688 INFO [InsertThread --- 7] - tomcat --- is included
unit for CN 2014-08-02 23:36:45,688 DEBUG [InsertThread --- 7] - Change notification not require
on same node except tomcat cert. 2014-08-02 23:36:45,688 INFO [InsertThread --- 7] - UNIT :
tomcat-trust 2014-08-02 23:36:45,688 INFO [InsertThread --- 7] - CurrentIPAddress : 10.48.46.29
2014-08-02 23:36:45,688 INFO [InsertThread --- 7] - RemoteIPAddress : 10.48.46.29 2014-08-02
23:36:45,688 INFO [InsertThread --- 7] - OldSerialNo :6cf5bc855b681f658f9e7506d3ec6ea5 2014-08-
02 23:36:45,688 INFO [InsertThread --- 7] - NewSerialNo :42c86b2cf293630fe27bbddc7fd02a39 2014-
08-02 23:36:45,688 INFO [InsertThread --- 7] - IN -- CertUtil.java -
getListFromComaSeperatedStr(..) - 2014-08-02 23:36:45,688 INFO [InsertThread --- 7] - OUT --
CertUtil.java - getListFromComaSeperatedStr - 2014-08-02 23:36:45,688 INFO [InsertThread --- 7]
- tomcat-trust --- is included unit for CN 2014-08-02 23:36:45,688 DEBUG [InsertThread --- 7] -
Change notification not require on same node except tomcat cert. 2014-08-02 23:36:45,689 INFO
[InsertThread --- 7] - tomcat-trust Certificate successfully updated in trust-store by Change
Notification.. 2014-08-02 23:36:45,689 INFO [InsertThread --- 7] - OUT --
CertKeystoreHandler.java - updateIntoKeystore - 2014-08-02 23:36:45,689 DEBUG [InsertThread ---
7] - InsertThread --- 7 -- END -- 2014-08-02 23:36:45,689 INFO [InsertThread --- 7] - OUT --
CertKeystoreHandler.java - run -
```

那么对证书的更改由在发行商节点的certCN服务不是完成。

f.现在让看一看在如何看起来象在用户节点。新的cert插入到DB并且复制对用户节点。certCN通知关于在DB上的变化。

剪断与在下面sub的完整的操作(在线路的注释) :

```
## certCN on sub is notified about the change in the DB 2014-08-02 23:36:46,147 INFO [Thread-5]
- IN - process. changeData &colon; 2014-08-02 23:36:46,149 INFO [Thread-5] - Inside CERTIFICATE
- I/U option.. ## details about the change are in from DBL (PKID, old serial, new serial, etc.)
2014-08-02 23:36:46,149 DEBUG [Thread-5] - Updated Data in CERTIFICATE
::<msg><type>DBL</type><table>certificate</table><tableid>41</tableid><action>U</action><time>14
07015406</time><old><cdrserver>2</cdrserver><cdrtime>1407012599</cdrtime><pkid>533dbbfc-78ce-
b46f-7d64-
cd2b7c536f6d</pkid><servername>CUCM861</servername><subjectname>L=KRAKOW,ST=MALOPOLSKA,CN=CUCM86
1,OU=TAC,O=CISCO,C=PL</subjectname><issuename>L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,
C=PL</issuename><serialnumber>6cf5bc855b681f658f9e7506d3ec6ea5</serialnumber><certificate></cer
tificate><ipv4address>10.48.46.29</ipv4address><ipv6address></ipv6address><timetolive>NULL</time
tolive><ifx_replcheck>6043073097765093380</ifx_replcheck></old><new><pkid>533dbbfc-78ce-b46f-
7d64-
cd2b7c536f6d</pkid><servername>CUCM861</servername><subjectname>L=KRAKOW,ST=MALOPOLSKA,CN=CUCM86
1,OU=TAC,O=CISCO,C=PL</subjectname><issuename>L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,
C=PL</issuename><serialnumber>42c86b2cf293630fe27bbddc7fd02a39</serialnumber><certificate>chang
ed</certificate><ipv4address>10.48.46.29</ipv4address><ipv6address></ipv6address><timetolive>NUL
L</timetolive></new></msg> 2014-08-02 23:36:46,149 DEBUG [Thread-5] - Certificate PKID :
533dbbfc-78ce-b46f-7d64-cd2b7c536f6d , ipAddress : 10.48.46.29 , OldSerialNo :
6cf5bc855b681f658f9e7506d3ec6ea5 , NewSerialNo : 42c86b2cf293630fe27bbddc7fd02a39 2014-08-02
23:36:46,150 INFO [Thread-5] - OUT - process. 2014-08-02 23:36:46,151 INFO [InsertThread --- 34]
- IN -- CertKeystoreHandler.java - run() - 2014-08-02 23:36:46,152 DEBUG [InsertThread --- 34] -
InsertThread --- 34 -- START -- 2014-08-02 23:36:46,152 DEBUG [InsertThread --- 34] - DB Value
UPDATE: 533dbbfc-78ce-b46f-7d64-cd2b7c536f6d 2014-08-02 23:36:46,152 INFO [InsertThread --- 34]
- IN -- CertKeystoreHandler.java - updateIntoKeystore() - 2014-08-02 23:36:46,153 INFO
[InsertThread --- 34] - IN -- CertDBImpl.java - getCertificate(certBash64SHA1:null --
pkid:533dbbfc-78ce-b46f-7d64-cd2b7c536f6d 2014-08-02 23:36:46,153 DEBUG [InsertThread --- 34] -
Connection Initialized to localnode. Connection HashCode:30330150 --Details:Connector(NOT
CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-02 23:36:46,153 DEBUG [InsertThread ---
34] - Select Query to getCertificate :SELECT A.*,B.HASH FROM CERTIFICATE A, CERTIFICATEHASHMAP B
WHERE A.PKID=B.FKCERTIFICATE AND A.PKID = "533dbbfc-78ce-b46f-7d64-cd2b7c536f6d" 2014-08-02
23:36:46,153 DEBUG [InsertThread --- 34] - getConn:
usePooling[true]connectToLocalDB[true]_target[0]connectToPubByDefault[false] 2014-08-02
23:36:46,154 DEBUG [InsertThread --- 34] - Try to get a connection from pool 2014-08-02
23:36:46,154 DEBUG [InsertThread --- 34] - getting local connection from Pool 2014-08-02
23:36:46,154 DEBUG [InsertThread --- 34] - Getting connection from connection pool entry
<database,jdbcurl2> 2014-08-02 23:36:46,154 DEBUG [InsertThread --- 34] - There are currently 2
connection pool entries 2014-08-02 23:36:46,154 DEBUG [InsertThread --- 34] - Checking if
connection limit has been reached for database 2014-08-02 23:36:46,154 DEBUG [InsertThread ---
34] - Connecting to subscriber so max number of connections allowed is 100 2014-08-02
23:36:46,154 DEBUG [InsertThread --- 34] - Number of connections in use is 0 2014-08-02
23:36:46,154 DEBUG [InsertThread --- 34] - There are currently 2 connection pool entries 2014-
08-02 23:36:46,154 DEBUG [InsertThread --- 34] - Number of available connections in pool: 0
2014-08-02 23:36:46,193 DEBUG [InsertThread --- 34] - Adding connection
<com.informix.jdbc.IfxSqlConnect@1feba51> to connection list 2014-08-02 23:36:46,194 DEBUG
[InsertThread --- 34] - Marking connection <com.informix.jdbc.IfxSqlConnect@1feba51> as used
2014-08-02 23:36:46,194 DEBUG [InsertThread --- 34] - Got connection from pool 2014-08-02
23:36:46,197 DEBUG [InsertThread --- 34] - Closing the resultset. 2014-08-02 23:36:46,198 DEBUG
[InsertThread --- 34] - Closing the connection. Connection HashCode:30330150 --
Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-02 23:36:46,198 DEBUG
[InsertThread --- 34] - Attempting to close connection 2014-08-02 23:36:46,198 DEBUG
[InsertThread --- 34] - Removing connection <database, jdbcurl2> from ConnectionManager list
2014-08-02 23:36:46,198 DEBUG [InsertThread --- 34] - removeConnectionFromConnectionList() 2014-
08-02 23:36:46,198 DEBUG [InsertThread --- 34] - Removing connection
<com.informix.jdbc.IfxSqlConnect@1feba51> from connection list 2014-08-02 23:36:46,198 DEBUG
[InsertThread --- 34] - Connection <com.informix.jdbc.IfxSqlConnect@1feba51> is not closed,
```

adding it back to the pool entry <database,jdbcurl2> 2014-08-02 23:36:46,198 INFO [InsertThread --- 34] - Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:46,198 DEBUG [InsertThread --- 34] - Connection released from CertDBImpl.getCertificate method. 2014-08-02 23:36:46,198 INFO [InsertThread --- 34] - OUT -- CertDBImpl.java - getCertificate - 2014-08-02 23:36:46,198 INFO [InsertThread --- 34] - IN -- CertDBImpl.java - getCertUnitByPkid(pkid) - 2014-08-02 23:36:46,199 DEBUG [InsertThread --- 34] - Connection Initialized to localnode. Connection HashCode:8005144 --Details:Connector(NOT CONNECTED: Driver=com.informix.jdbc.IfxDriver;) **## querying DB for the changed certificate and getting details of it** 2014-08-02 23:36:46,199 DEBUG [InsertThread --- 34] - Select Query to getCertUnitByPkid :SELECT A.PKID, A.FKCERTIFICATE, A.TKCERTIFICATESERVICE, B.NAME UNIT FROM CERTIFICATESERVICECERTIFICATEMAP A, TYPECERTIFICATESERVICE B WHERE A.FKCERTIFICATE="533dbbfc-78ce-b46f-7d64-cd2b7c536f6d" AND A.TKCERTIFICATESERVICE = B.ENUM 2014-08-02 23:36:46,199 DEBUG [InsertThread --- 34] - getConn: usePooling[true]connectToLocalDB[true]\_target[0]connectToPubByDefault[false] 2014-08-02 23:36:46,199 DEBUG [InsertThread --- 34] - Try to get a connection from pool 2014-08-02 23:36:46,199 DEBUG [InsertThread --- 34] - getting local connection from Pool 2014-08-02 23:36:46,199 DEBUG [InsertThread --- 34] - Getting connection from connection pool entry <database,jdbcurl2> 2014-08-02 23:36:46,199 DEBUG [InsertThread --- 34] - There are currently 2 connection pool entries 2014-08-02 23:36:46,199 DEBUG [InsertThread --- 34] - Adding connection <com.informix.jdbc.IfxSqlConnect@1feba51> to connection list 2014-08-02 23:36:46,199 DEBUG [InsertThread --- 34] - Marking connection <com.informix.jdbc.IfxSqlConnect@1feba51> as used 2014-08-02 23:36:46,199 DEBUG [InsertThread --- 34] - Got connection from pool 2014-08-02 23:36:46,203 DEBUG [InsertThread --- 34] - Closing the resultset. 2014-08-02 23:36:46,204 DEBUG [InsertThread --- 34] - Closing the connection. Connection HashCode:8005144 -- Details:Connector(CONNECTED: Driver=com.informix.jdbc.IfxDriver;) 2014-08-02 23:36:46,204 DEBUG [InsertThread --- 34] - Attempting to close connection 2014-08-02 23:36:46,204 DEBUG [InsertThread --- 34] - Removing connection <database,jdbcurl2> from ConnectionManager list 2014-08-02 23:36:46,204 DEBUG [InsertThread --- 34] - removeConnectionFromConnectionList() 2014-08-02 23:36:46,204 DEBUG [InsertThread --- 34] - Removing connection <com.informix.jdbc.IfxSqlConnect@1feba51> from connection list 2014-08-02 23:36:46,204 DEBUG [InsertThread --- 34] - Connection <com.informix.jdbc.IfxSqlConnect@1feba51> is not closed, adding it back to the pool entry <database,jdbcurl2> 2014-08-02 23:36:46,204 INFO [InsertThread --- 34] - Connection/Statement/Resultset is closed properly. 2014-08-02 23:36:46,204 DEBUG [InsertThread --- 34] - Resultset released from CertDBImpl.getCertUnitByPkid method. 2014-08-02 23:36:46,204 INFO [InsertThread --- 34] - OUT -- CertDBImpl.java - getCertUnitByPkid - 2014-08-02 23:36:46,204 INFO [InsertThread --- 34] - UNIT : tomcat 2014-08-02 23:36:46,204 INFO [InsertThread --- 34] - CurrentIPAddress : 10.48.46.30 2014-08-02 23:36:46,204 INFO [InsertThread --- 34] - RemoteIPAddress : 10.48.46.29 2014-08-02 23:36:46,204 INFO [InsertThread --- 34] - OldSerialNo :6cf5bc855b681f658f9e7506d3ec6ea5 2014-08-02 23:36:46,204 INFO [InsertThread --- 34] - NewSerialNo :42c86b2cf293630fe27b7bdc7fd02a39 2014-08-02 23:36:46,204 INFO [InsertThread --- 34] - IN -- CertUtil.java - getListFromComaSeperatedStr(..) - 2014-08-02 23:36:46,204 INFO [InsertThread --- 34] - OUT -- CertUtil.java - getListFromComaSeperatedStr - 2014-08-02 23:36:46,204 INFO [InsertThread --- 34] - tomcat --- is included unit for CN 2014-08-02 23:36:46,204 INFO [InsertThread --- 34] - IN -- CertUtil.java - loadCertFromString(cert) - 2014-08-02 23:36:46,204 INFO [InsertThread --- 34] - IN -- RSACryptoEngine.java - loadCertificate(..) - 2014-08-02 23:36:46,209 INFO [InsertThread --- 34] - OUT -- RSACryptoEngine.java - loadCertificate - 2014-08-02 23:36:46,209 INFO [InsertThread --- 34] - OUT -- CertUtil.java - loadCertFromString - 2014-08-02 23:36:46,209 INFO [InsertThread --- 34] - IN -- CertDBUtil.java - checkDeleteAndImport(unit, dbCert) - 2014-08-02 23:36:46,209 INFO [InsertThread --- 34] - DB CertInfo.--SN:88769680872451706773275250466208361017-- SubjectDN:L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL--GetNotBefore:Sat Aug 02 23:36:44 CEST 2014--GetNotAfter:Thu Aug 01 23:36:43 CEST 2019 **## verifying that you have this certificate in trust store** 2014-08-02 23:36:46,209 INFO [InsertThread --- 34] - loading certificate element named [tomcat-trust] 2014-08-02 23:36:46,210 INFO [InsertThread --- 34] - determining certificates in group [product-cpi] with type [trust-certs] 2014-08-02 23:36:46,210 INFO [InsertThread --- 34] - loading the config file [/usr/local/platform/conf/cert-conf.xml] 2014-08-02 23:36:46,212 INFO [InsertThread --- 34] - looking for first [trust-certs] in [product-cpi] 2014-08-02 23:36:46,212 INFO [InsertThread --- 34] - loaded element [tomcat-trust] 2014-08-02 23:36:46,212 INFO [InsertThread --- 34] - determining cert dir for [tomcat-trust] 2014-08-02 23:36:46,212 INFO [InsertThread --- 34] - looking for first [dir] in [tomcat-trust] 2014-08-02 23:36:46,212 INFO [InsertThread --- 34] - getting the value of [dir] 2014-08-02 23:36:46,213 INFO [InsertThread --- 34] - value is [/usr/local/platform/.security/tomcat/trust-certs] 2014-08-02 23:36:46,213 INFO [InsertThread --- 34] - cert dir is [/usr/local/platform/.security/tomcat/trust-certs] 2014-08-02 23:36:46,213 INFO [InsertThread ---



```
- 34] - [/usr/local/platform/.security/tomcat/trust-certs/VeriSign_Class_3_Secure_Server_CA_
_G3.description] match is false 2014-08-02 23:36:46,213 INFO [InsertThread --- 34] -
[/usr/local/platform/.security/tomcat/trust-certs/CUCM861s.description] match is false 2014-08-
02 23:36:46,213 INFO [InsertThread --- 34] - [/usr/local/platform/.security/tomcat/trust-
certs/VeriSign_Class_3_Secure_Server_CA_-_G3.pem] match is true 2014-08-02 23:36:46,213 INFO
[InsertThread --- 34] - [/usr/local/platform/.security/tomcat/trust-
certs/VeriSign_Class_3_Secure_Server_CA_-_G3.der] match is true 2014-08-02 23:36:46,213 INFO
[InsertThread --- 34] - [/usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore]
match is false ## this is the one you are looking for 2014-08-02 23:36:46,213 INFO [InsertThread
--- 34] - [/usr/local/platform/.security/tomcat/trust-certs/CUCM861s.der] match is true 2014-08-
02 23:36:46,213 INFO [InsertThread --- 34] - [/usr/local/platform/.security/tomcat/trust-
certs/CUCM861.der] match is true 2014-08-02 23:36:46,213 INFO [InsertThread --- 34] -
[/usr/local/platform/.security/tomcat/trust-certs/CUCM861.description] match is false 2014-08-02
23:36:46,213 INFO [InsertThread --- 34] - [/usr/local/platform/.security/tomcat/trust-
certs/7e0370f0.0] match is false 2014-08-02 23:36:46,213 INFO [InsertThread --- 34] -
[/usr/local/platform/.security/tomcat/trust-certs/d0aacffb.0] match is false 2014-08-02
23:36:46,213 INFO [InsertThread --- 34] - [/usr/local/platform/.security/tomcat/trust-
certs/101f99a6.0] match is false 2014-08-02 23:36:46,213 INFO [InsertThread --- 34] -
[/usr/local/platform/.security/tomcat/trust-certs/CUCM861.pem] match is true 2014-08-02
23:36:46,213 INFO [InsertThread --- 34] - [/usr/local/platform/.security/tomcat/trust-
certs/CUCM861s.pem] match is true 2014-08-02 23:36:46,213 INFO [InsertThread --- 34] - IN --
RSACryptoEngine.java - loadCertificate(..) - 2014-08-02 23:36:46,213 INFO [InsertThread --- 34]
- OUT -- RSACryptoEngine.java - loadCertificate - 2014-08-02 23:36:46,213 INFO [InsertThread ---
34] - IN -- RSACryptoEngine.java - loadCertificate(..) - 2014-08-02 23:36:46,214 INFO
[InsertThread --- 34] - OUT -- RSACryptoEngine.java - loadCertificate - ## certificate file is
being deleted from the filesystem 2014-08-02 23:36:46,214 DEBUG [InsertThread --- 34] -
SUBJECTDN of DBCert and FileSystemCert compared correctly.. 2014-08-02 23:36:46,214 DEBUG
[InsertThread --- 34] - FILE SYSTEM CERT TO DELETE AND RE-IMPORT.. 2014-08-02 23:36:46,214 INFO
[InsertThread --- 34] - IN -- CertDBUtil.java - deleteTrustCertInFileSystem.. unit : tomcat ::
FileName :: /usr/local/platform/.security/tomcat/trust-certs/CUCM861.pem 2014-08-02 23:36:46,214
INFO [InsertThread --- 34] - IN -- CertDBUtil.java - populateOpInfo(operation, unit, type,
fileLocation, x509Cert, isDBInsert) - 2014-08-02 23:36:46,214 INFO [InsertThread --- 34] -
loading certificate element named [tomcat-trust] 2014-08-02 23:36:46,214 INFO [InsertThread ---
34] - determining certificates in group [product-cpi] with type [trust-certs] 2014-08-02
23:36:46,214 INFO [InsertThread --- 34] - loading the config file
[/usr/local/platform/conf/cert-conf.xml] 2014-08-02 23:36:46,215 INFO [InsertThread --- 34] -
looking for first [trust-certs] in [product-cpi] 2014-08-02 23:36:46,215 INFO [InsertThread ---
34] - loaded element [tomcat-trust] 2014-08-02 23:36:46,215 INFO [InsertThread --- 34] -
determining key dir for [tomcat-trust] 2014-08-02 23:36:46,215 INFO [InsertThread --- 34] -
looking for first [key-dir] in [tomcat-trust] 2014-08-02 23:36:46,215 INFO [InsertThread --- 34]
- getting the value of [key-dir] 2014-08-02 23:36:46,215 INFO [InsertThread --- 34] - value is
[/usr/local/platform/.security/tomcat/keys] 2014-08-02 23:36:46,215 INFO [InsertThread --- 34] -
key dir is [/usr/local/platform/.security/tomcat/keys] 2014-08-02 23:36:46,215 INFO
[InsertThread --- 34] - OUT -- CertDBUtil.java - populateOpInfo - 2014-08-02 23:36:46,215 INFO
[InsertThread --- 34] - IN -- CertMgr.java - getCertMgrObj(unit) - tomcat-trust ## certCN will
call CM api to perform this task. But nothing will land in CM logs. All
## details can be found below 2014-08-02 23:36:46,215 INFO [InsertThread --- 34] - OUT --
CertMgr.java - getCertMgrObj - com.cisco.cpi.certMgmt.manager.TomcatCertMgr@15b0e9f 2014-08-02
23:36:46,215 INFO [InsertThread --- 34] - IN -- DefaultCertMgr.java - deleteCert(info) - decode:
true op: delete unit: tomcat-trust keystoreUnit:tomcat-trust logFile:
/var/log/active/platform/log/cert-mgmt.log resultFile: /var/log/active/platform/log/certde-
info.xml keyDir: /usr/local/platform/.security/tomcat/keys certDir:
/usr/local/platform/.security/tomcat/trust-certs/CUCM861.pem srcCert: null type: trust-certs
rootCACert: null trustDir: null DNAME: null description:null isDBInsert:false 2014-08-02
23:36:46,215 INFO [InsertThread --- 34] - parsed filename: 'CUCM861.pem' 2014-08-02 23:36:46,215
DEBUG [InsertThread --- 34] - filename: 'CUCM861.pem' 2014-08-02 23:36:46,215 DEBUG
[InsertThread --- 34] - fileRoot: 'CUCM861' 2014-08-02 23:36:46,215 INFO [InsertThread --- 34] -
IN -- DefaultCertMgr.java - deleteDERandPEM(filenameRoot, parentDir, info) - 2014-08-02
23:36:46,215 DEBUG [InsertThread --- 34] - ParentDir:/usr/local/platform/.security/tomcat/trust-
certsFileName.(DER/PEM):CUCM861 2014-08-02 23:36:46,215 INFO [InsertThread --- 34] - IN --
RSACryptoEngine.java - loadCertificate(..) - 2014-08-02 23:36:46,224 INFO [InsertThread --- 34]
- OUT -- RSACryptoEngine.java - loadCertificate - 2014-08-02 23:36:46,224 INFO [InsertThread ---
34] - No plugins registered for DB Store 2014-08-02 23:36:46,224 INFO [InsertThread --- 34] -
OUT -- DefaultCertMgr.java - deleteDERandPEM - 2014-08-02 23:36:46,224 DEBUG [InsertThread ---
```

```
34] - deletedDERandPEM: sCertDir = /usr/local/platform/.security/tomcat/trust-certs --- sAlias =
CUCM861 ## cert file deleted. you need to remove it from key store 2014-08-02 23:36:46,225 INFO
[InsertThread --- 34] - IN -- TomcatCertMgr.java - removeFromKeyStore(..) - 2014-08-02
23:36:46,225 INFO [InsertThread --- 34] - IN -- RSACryptoEngine.java -
removeFromKeyStore(keystoreFile, keystorePass, alias) - 2014-08-02 23:36:46,225 INFO
[InsertThread --- 34] - IN -- RSACryptoEngine.java - loadKeyStore(keystoreFile, keystorePass) -
2014-08-02 23:36:46,232 INFO [InsertThread --- 34] - OUT -- RSACryptoEngine.java - loadKeyStore
- 2014-08-02 23:36:46,238 DEBUG [InsertThread --- 34] - Removing certificate from keystore :
CUCM861 2014-08-02 23:36:46,238 DEBUG [InsertThread --- 34] - Size of the keystore after delete
is : 2 2014-08-02 23:36:46,238 INFO [InsertThread --- 34] - OUT -- RSACryptoEngine.java -
removeFromKeyStore - 2014-08-02 23:36:46,238 INFO [InsertThread --- 34] - OUT --
TomcatCertMgr.java - removeFromKeyStore - 2014-08-02 23:36:46,239 INFO [InsertThread --- 34] -
trustdir : /usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,239 INFO
[InsertThread --- 34] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,239 DEBUG
[InsertThread --- 34] - Executing command from Util.sysExec : python
/usr/local/platform/bin/c_rehash.py /usr/local/platform/.security/tomcat/trust-certs 2014-08-02
23:36:46,295 INFO [InsertThread --- 34] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,295
INFO [InsertThread --- 34] - IN -- DefaultCertMgr.java - setOwnershipAndPermissions(file) -
2014-08-02 23:36:46,295 DEBUG [InsertThread --- 34] - setOwnershipAndPermissions : trust-certs
2014-08-02 23:36:46,296 DEBUG [InsertThread --- 34] - Changing ownership of file
'/usr/local/platform/.security/tomcat/trust-certs' 2014-08-02 23:36:46,296 INFO [InsertThread --
- 34] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,296 DEBUG [InsertThread ---
34] - Executing command from Util.sysExec : /bin/chown -R certbase
/usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,299 INFO [InsertThread ---
34] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,299 DEBUG [InsertThread --- 34] -
Changing group ownership of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-02
23:36:46,299 INFO [InsertThread --- 34] - IN -- Util.java - sysExec(exe, args) - 2014-08-02
23:36:46,299 DEBUG [InsertThread --- 34] - Executing command from Util.sysExec : /bin/chgrp -R
ccmbase /usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,302 INFO
[InsertThread --- 34] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,302 DEBUG [InsertThread
--- 34] - Changing mode of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-02
23:36:46,302 INFO [InsertThread --- 34] - IN -- Util.java - sysExec(exe, args) - 2014-08-02
23:36:46,302 DEBUG [InsertThread --- 34] - Executing command from Util.sysExec : /bin/chmod -R
755 /usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,306 INFO [InsertThread
--- 34] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,306 INFO [InsertThread --- 34] - OUT
-- DefaultCertMgr.java - setOwnershipAndPermissions - 2014-08-02 23:36:46,306 INFO [InsertThread
--- 34] - OUT -- DefaultCertMgr.java - deleteCert - 2014-08-02 23:36:46,306 INFO [InsertThread -
- 34] - OUT -- CertDBUtil.java - deleteTrustCertInFileSystem - ## certificate will be
reimported to the filesystem now into /usr/local/platform/.security/tomcat/trust-certs 2014-08-
02 23:36:46,306 INFO [InsertThread --- 34] - IN -- CertDBUtil.java -
importTrustCertInFileSystem.. unit : tomcat 2014-08-02 23:36:46,306 INFO [InsertThread --- 34] -
IN -- CertDBUtil.java - populateOpInfo(operation, unit, type, fileLocation, x509Cert,
isDBInsert) - 2014-08-02 23:36:46,306 INFO [InsertThread --- 34] - loading certificate element
named [tomcat-trust] 2014-08-02 23:36:46,306 INFO [InsertThread --- 34] - determining
certificates in group [product-cpi] with type [trust-certs] 2014-08-02 23:36:46,306 INFO
[InsertThread --- 34] - loading the config file [/usr/local/platform/conf/cert-conf.xml] 2014-
08-02 23:36:46,308 INFO [InsertThread --- 34] - looking for first [trust-certs] in [product-cpi]
2014-08-02 23:36:46,308 INFO [InsertThread --- 34] - loaded element [tomcat-trust] 2014-08-02
23:36:46,308 INFO [InsertThread --- 34] - determining key dir for [tomcat-trust] 2014-08-02
23:36:46,308 INFO [InsertThread --- 34] - looking for first [key-dir] in [tomcat-trust] 2014-08-
02 23:36:46,308 INFO [InsertThread --- 34] - getting the value of [key-dir] 2014-08-02
23:36:46,308 INFO [InsertThread --- 34] - value is [/usr/local/platform/.security/tomcat/keys]
2014-08-02 23:36:46,308 INFO [InsertThread --- 34] - key dir is
[/usr/local/platform/.security/tomcat/keys] 2014-08-02 23:36:46,308 INFO [InsertThread --- 34] -
loading certificate element named [tomcat-trust] 2014-08-02 23:36:46,308 INFO [InsertThread ---
34] - determining certificates in group [product-cpi] with type [trust-certs] 2014-08-02
23:36:46,308 INFO [InsertThread --- 34] - loading the config file
[/usr/local/platform/conf/cert-conf.xml] 2014-08-02 23:36:46,310 INFO [InsertThread --- 34] -
looking for first [trust-certs] in [product-cpi] 2014-08-02 23:36:46,310 INFO [InsertThread ---
34] - loaded element [tomcat-trust] 2014-08-02 23:36:46,310 INFO [InsertThread --- 34] -
determining cert dir for [tomcat-trust] 2014-08-02 23:36:46,310 INFO [InsertThread --- 34] -
looking for first [dir] in [tomcat-trust] 2014-08-02 23:36:46,310 INFO [InsertThread --- 34] -
getting the value of [dir] 2014-08-02 23:36:46,310 INFO [InsertThread --- 34] - value is
[/usr/local/platform/.security/tomcat/trust-certs] 2014-08-02 23:36:46,310 INFO [InsertThread --
```

- 34] - cert dir is [/usr/local/platform/.security/tomcat/trust-certs] 2014-08-02 23:36:46,310  
INFO [InsertThread --- 34] - OUT -- CertDBUtil.java - populateOpInfo - 2014-08-02 23:36:46,310  
INFO [InsertThread --- 34] - IN -- CertMgr.java - getCertMgrObj(unit) - tomcat-trust **## again CM  
API is called to perform this task** 2014-08-02 23:36:46,310 INFO [InsertThread --- 34] - OUT --  
CertMgr.java - getCertMgrObj - com.cisco.cpi.certMgmt.manager.TomcatCertMgr@1bbe9f 2014-08-02  
23:36:46,310 INFO [InsertThread --- 34] - IN -- DefaultCertMgr.java - importCert(info) - decode:  
true op: import unit: tomcat-trust keystoreUnit:tomcat-trust logFile:  
/var/log/active/platform/log/cert-mgmt.log resultFile: /var/log/active/platform/log/certde-  
info.xml keyDir: /usr/local/platform/.security/tomcat/keys certDir:  
/usr/local/platform/.security/tomcat/trust-certs srcCert: null type: trust-certs rootCACert:  
null trustDir: null DNAME: null description:null isDBInsert:false 2014-08-02 23:36:46,310 DEBUG  
[InsertThread --- 34] - Checking validity of cert 2014-08-02 23:36:46,310 INFO [InsertThread ---  
34] - Verifying certificate L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL 2014-08-02  
23:36:46,310 INFO [InsertThread --- 34] - IN -- CertUtil.java - parseCNfromDN(DN, sSearchStr) -  
2014-08-02 23:36:46,310 DEBUG [InsertThread --- 34] - parseCNfromDN( certSubjDN:  
'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL') 2014-08-02 23:36:46,310 DEBUG  
[InsertThread --- 34] - Truncating CN 'CUCM861,OU=TAC,O=CISCO,C=PL' -> 'CUCM861' 2014-08-02  
23:36:46,310 INFO [InsertThread --- 34] - OUT -- CertUtil.java - parseCNfromDN - 2014-08-02  
23:36:46,310 DEBUG [InsertThread --- 34] - Parsed CN 'CUCM861' from DN  
'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL' 2014-08-02 23:36:46,311 INFO  
[InsertThread --- 34] - trying to load cert from trust store  
::/usr/local/platform/.security/tomcat/trust-certs/CUCM861.pem 2014-08-02 23:36:46,311 INFO  
[InsertThread --- 34] - cert not available in trust store  
::L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL 2014-08-02 23:36:46,311 INFO  
[InsertThread --- 34] - IN -- DefaultCertMgr.java - importTrustCert(info, cert) - 2014-08-02  
23:36:46,311 INFO [InsertThread --- 34] - IN -- DefaultCertMgr.java - saveToTrustStore(info,  
cert) - 2014-08-02 23:36:46,311 ERROR [InsertThread --- 34] - trust directory parameter is null  
2014-08-02 23:36:46,311 INFO [InsertThread --- 34] - IN -- DefaultCertMgr.java -  
saveTrustCert(cert, targetDir, certType) - 2014-08-02 23:36:46,311 INFO [InsertThread --- 34] -  
IN -- CertUtil.java - parseCNfromDN(DN, sSearchStr) - 2014-08-02 23:36:46,311 DEBUG  
[InsertThread --- 34] - parseCNfromDN( certSubjDN:  
'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL') 2014-08-02 23:36:46,311 DEBUG  
[InsertThread --- 34] - Truncating CN 'CUCM861,OU=TAC,O=CISCO,C=PL' -> 'CUCM861' 2014-08-02  
23:36:46,311 INFO [InsertThread --- 34] - OUT -- CertUtil.java - parseCNfromDN - 2014-08-02  
23:36:46,311 DEBUG [InsertThread --- 34] - Parsed CN 'CUCM861' from DN  
'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL' 2014-08-02 23:36:46,311 INFO  
[InsertThread --- 34] - IN -- CertUtil.java - parseCNfromDN(DN, sSearchStr) - 2014-08-02  
23:36:46,312 DEBUG [InsertThread --- 34] - parseCNfromDN( certSubjDN:  
'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL') 2014-08-02 23:36:46,312 DEBUG  
[InsertThread --- 34] - Truncating CN 'CUCM861,OU=TAC,O=CISCO,C=PL' -> 'CUCM861' 2014-08-02  
23:36:46,312 INFO [InsertThread --- 34] - OUT -- CertUtil.java - parseCNfromDN - 2014-08-02  
23:36:46,312 DEBUG [InsertThread --- 34] - Parsed CN 'CUCM861' from DN  
'L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL' 2014-08-02 23:36:46,312 DEBUG  
[InsertThread --- 34] - target filename for imported cert: 'CUCM861.pem' 2014-08-02 23:36:46,312  
DEBUG [InsertThread --- 34] - existing certificate with same filename not found. **## saving cert  
as PEM and DER formats** 2014-08-02 23:36:46,312 DEBUG [InsertThread --- 34] - Saving PEM encoded  
cert '/usr/local/platform/.security/tomcat/trust-certs/CUCM861.pem' 2014-08-02 23:36:46,312 INFO  
[InsertThread --- 34] - IN -- CryptoUtil.java - saveAsPEM(..) - File :  
/usr/local/platform/.security/tomcat/trust-certs/CUCM861.pem 2014-08-02 23:36:46,313 INFO  
[InsertThread --- 34] - OUT -- CryptoUtil.java - saveAsPEM - 2014-08-02 23:36:46,313 DEBUG  
[InsertThread --- 34] - Saving DER encoded cert '/usr/local/platform/.security/tomcat/trust-  
certs/CUCM861.der' 2014-08-02 23:36:46,314 INFO [InsertThread --- 34] - OUT --  
DefaultCertMgr.java - saveTrustCert - **## saving new certificate into keystore** 2014-08-02  
23:36:46,314 INFO [InsertThread --- 34] - IN -- TomcatCertMgr.java - saveToKeyStore(..) - 2014-  
08-02 23:36:46,314 INFO [InsertThread --- 34] - IN -- RSACryptoEngine.java -  
saveToKeyStore(keystoreFile, keystorePass, x509Certificate, alias) - 2014-08-02 23:36:46,314  
INFO [InsertThread --- 34] - IN -- RSACryptoEngine.java - loadKeyStore(keystoreFile,  
keystorePass) - 2014-08-02 23:36:46,323 INFO [InsertThread --- 34] - OUT -- RSACryptoEngine.java  
- loadKeyStore - 2014-08-02 23:36:46,323 INFO [InsertThread --- 34] - Size of the keystore  
before import is : 2 2014-08-02 23:36:46,323 INFO [InsertThread --- 34] - Importing certificate  
: CUCM861 2014-08-02 23:36:46,330 INFO [InsertThread --- 34] - Size of the keystore after import  
is : 3 2014-08-02 23:36:46,330 INFO [InsertThread --- 34] - OUT -- RSACryptoEngine.java -  
saveToKeyStore - 2014-08-02 23:36:46,330 INFO [InsertThread --- 34] - OUT -- TomcatCertMgr.java  
- saveToKeyStore - 2014-08-02 23:36:46,330 DEBUG [InsertThread --- 34] - TrustCert description

filename : 'CUCM861.description' 2014-08-02 23:36:46,330 INFO [InsertThread --- 34] - IN -- DefaultCertMgr.java - createDescriptionFile(name, description) - 2014-08-02 23:36:46,330 INFO [InsertThread --- 34] - description is :Trust Certificate 2014-08-02 23:36:46,331 INFO [InsertThread --- 34] - OUT -- DefaultCertMgr.java - createDescriptionFile - 2014-08-02 23:36:46,331 INFO [InsertThread --- 34] - IN -- DefaultCertMgr.java - setOwnershipAndPermissions(file) - 2014-08-02 23:36:46,331 DEBUG [InsertThread --- 34] - setOwnershipAndPermissions : CUCM861.description 2014-08-02 23:36:46,331 DEBUG [InsertThread --- 34] - Changing ownership of file '/usr/local/platform/.security/tomcat/trust-certs/CUCM861.description' 2014-08-02 23:36:46,331 INFO [InsertThread --- 34] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,331 DEBUG [InsertThread --- 34] - Executing command from Util.sysExec : /bin/chown certbase /usr/local/platform/.security/tomcat/trust-certs/CUCM861.description 2014-08-02 23:36:46,334 INFO [InsertThread --- 34] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,334 DEBUG [InsertThread --- 34] - Changing group ownership of file '/usr/local/platform/.security/tomcat/trust-certs/CUCM861.description' 2014-08-02 23:36:46,334 INFO [InsertThread --- 34] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,334 DEBUG [InsertThread --- 34] - Executing command from Util.sysExec : /bin/chgrp ccmbase /usr/local/platform/.security/tomcat/trust-certs/CUCM861.description 2014-08-02 23:36:46,337 INFO [InsertThread --- 34] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,337 DEBUG [InsertThread --- 34] - Changing mode of file '/usr/local/platform/.security/tomcat/trust-certs/CUCM861.description' 2014-08-02 23:36:46,337 INFO [InsertThread --- 34] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,337 DEBUG [InsertThread --- 34] - Executing command from Util.sysExec : /bin/chmod 755 /usr/local/platform/.security/tomcat/trust-certs/CUCM861.description 2014-08-02 23:36:46,339 INFO [InsertThread --- 34] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,339 INFO [InsertThread --- 34] - OUT -- DefaultCertMgr.java - setOwnershipAndPermissions - 2014-08-02 23:36:46,339 INFO [InsertThread --- 34] - OUT -- DefaultCertMgr.java - saveToTrustStore - 2014-08-02 23:36:46,340 INFO [InsertThread --- 34] - trustdir :/usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,340 INFO [InsertThread --- 34] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,340 DEBUG [InsertThread --- 34] - Executing command from Util.sysExec : python /usr/local/platform/bin/c\_rehash.py /usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,425 INFO [InsertThread --- 34] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,425 INFO [InsertThread --- 34] - IN -- DefaultCertMgr.java - setOwnershipAndPermissions(file) - 2014-08-02 23:36:46,425 DEBUG [InsertThread --- 34] - setOwnershipAndPermissions : trust-certs 2014-08-02 23:36:46,426 DEBUG [InsertThread --- 34] - Changing ownership of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-02 23:36:46,426 INFO [InsertThread --- 34] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,426 DEBUG [InsertThread --- 34] - Executing command from Util.sysExec : /bin/chown -R certbase /usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,429 INFO [InsertThread --- 34] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,429 DEBUG [InsertThread --- 34] - Changing group ownership of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-02 23:36:46,429 INFO [InsertThread --- 34] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,430 DEBUG [InsertThread --- 34] - Executing command from Util.sysExec : /bin/chgrp -R ccmbase /usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,433 INFO [InsertThread --- 34] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,433 DEBUG [InsertThread --- 34] - Changing mode of file '/usr/local/platform/.security/tomcat/trust-certs' 2014-08-02 23:36:46,433 INFO [InsertThread --- 34] - IN -- Util.java - sysExec(exe, args) - 2014-08-02 23:36:46,433 DEBUG [InsertThread --- 34] - Executing command from Util.sysExec : /bin/chmod -R 755 /usr/local/platform/.security/tomcat/trust-certs 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - OUT -- Util.java - sysExec - 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - OUT -- DefaultCertMgr.java - setOwnershipAndPermissions - 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - No plugins registered for DB Store 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - IN -- CryptoUtil.java - isOCSPEnabled(..) - 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - IN -- CryptoUtil.java - getCertMonitorXmlParser(..) - 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - OUT -- CryptoUtil.java - getCertMonitorXmlParser - 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - OUT -- CryptoUtil.java - isOCSPEnabled - false 2014-08-02 23:36:46,437 DEBUG [InsertThread --- 34] - OCSP is not enabled. 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - Successfully imported trusted certificate with Subject DN:L#61;KRAKOW,ST#61;MALOPOLSKA,CN#61;CUCM861,OU#61;TAC,O#61;CISCO,C#61;PL 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - OUT -- DefaultCertMgr.java - importTrustCert - Successfully imported trusted certificate with Subject DN:L#61;KRAKOW,ST#61;MALOPOLSKA,CN#61;CUCM861,OU#61;TAC,O#61;CISCO,C#61;PL **## import ends with success, some additional checks are performed below** 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - result of import operations is ::Import of trust certificate is successful 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - OUT -- DefaultCertMgr.java -

importCert - 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - OUT -- CertDBUtil.java -  
importTrustCertInFileSystem - 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - OUT --  
CertDBUtil.java - checkDeleteAndImport - 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] -  
UNIT : tomcat-trust 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - CurrentIPAddress :  
10.48.46.30 2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - RemoteIPAddress : 10.48.46.29  
2014-08-02 23:36:46,437 INFO [InsertThread --- 34] - OldSerialNo  
:6cf5bc855b681f658f9e7506d3ec6ea5 2014-08-02 23:36:46,438 INFO [InsertThread --- 34] -  
NewSerialNo :42c86b2cf293630fe27bbddc7fd02a39 2014-08-02 23:36:46,438 INFO [InsertThread --- 34]  
- IN -- CertUtil.java - getListFromComaSeperatedStr(..) - 2014-08-02 23:36:46,438 INFO  
[InsertThread --- 34] - OUT -- CertUtil.java - getListFromComaSeperatedStr - 2014-08-02  
23:36:46,438 INFO [InsertThread --- 34] - tomcat-trust --- is included unit for CN 2014-08-02  
23:36:46,438 INFO [InsertThread --- 34] - IN -- CertUtil.java - loadCertFromString(cert) - 2014-  
08-02 23:36:46,438 INFO [InsertThread --- 34] - IN -- RSACryptoEngine.java - loadCertificate(..)  
- 2014-08-02 23:36:46,438 INFO [InsertThread --- 34] - OUT -- RSACryptoEngine.java -  
loadCertificate - 2014-08-02 23:36:46,438 INFO [InsertThread --- 34] - OUT -- CertUtil.java -  
loadCertFromString - 2014-08-02 23:36:46,438 INFO [InsertThread --- 34] - IN -- CertDBUtil.java  
- checkDeleteAndImport(unit, dbCert) - 2014-08-02 23:36:46,438 INFO [InsertThread --- 34] - DB  
CertInfo.--SN:88769680872451706773275250466208361017--  
SubjectDN:L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL--GetNotBefore:Sat Aug 02  
23:36:44 CEST 2014--GetNotAfter:Thu Aug 01 23:36:43 CEST 2019 2014-08-02 23:36:46,438 INFO  
[InsertThread --- 34] - loading certificate element named [tomcat-trust] 2014-08-02 23:36:46,438  
INFO [InsertThread --- 34] - determining certificates in group [product-cpi] with type [trust-  
certs] 2014-08-02 23:36:46,438 INFO [InsertThread --- 34] - loading the config file  
[/usr/local/platform/conf/cert-conf.xml] 2014-08-02 23:36:46,441 INFO [InsertThread --- 34] -  
looking for first [trust-certs] in [product-cpi] 2014-08-02 23:36:46,441 INFO [InsertThread ---  
34] - loaded element [tomcat-trust] 2014-08-02 23:36:46,441 INFO [InsertThread --- 34] -  
determining cert dir for [tomcat-trust] 2014-08-02 23:36:46,441 INFO [InsertThread --- 34] -  
looking for first [dir] in [tomcat-trust] 2014-08-02 23:36:46,441 INFO [InsertThread --- 34] -  
getting the value of [dir] 2014-08-02 23:36:46,441 INFO [InsertThread --- 34] - value is  
[/usr/local/platform/.security/tomcat/trust-certs] 2014-08-02 23:36:46,441 INFO [InsertThread --  
- 34] - cert dir is [/usr/local/platform/.security/tomcat/trust-certs] 2014-08-02 23:36:46,442  
INFO [InsertThread --- 34] - [/usr/local/platform/.security/tomcat/trust-  
certs/VeriSign\_Class\_3\_Secure\_Server\_CA\_-\_G3.description] match is false 2014-08-02 23:36:46,442  
INFO [InsertThread --- 34] - [/usr/local/platform/.security/tomcat/trust-  
certs/CUCM861s.description] match is false 2014-08-02 23:36:46,442 INFO [InsertThread --- 34] -  
[/usr/local/platform/.security/tomcat/trust-certs/VeriSign\_Class\_3\_Secure\_Server\_CA\_-\_G3.pem]  
match is true 2014-08-02 23:36:46,442 INFO [InsertThread --- 34] -  
[/usr/local/platform/.security/tomcat/trust-certs/VeriSign\_Class\_3\_Secure\_Server\_CA\_-\_G3.der]  
match is true 2014-08-02 23:36:46,442 INFO [InsertThread --- 34] -  
[/usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore] match is false 2014-08-  
02 23:36:46,442 INFO [InsertThread --- 34] - [/usr/local/platform/.security/tomcat/trust-  
certs/CUCM861s.der] match is true 2014-08-02 23:36:46,442 INFO [InsertThread --- 34] -  
[/usr/local/platform/.security/tomcat/trust-certs/CUCM861.der] match is true 2014-08-02  
23:36:46,442 INFO [InsertThread --- 34] - [/usr/local/platform/.security/tomcat/trust-  
certs/CUCM861.description] match is false 2014-08-02 23:36:46,442 INFO [InsertThread --- 34] -  
[/usr/local/platform/.security/tomcat/trust-certs/7e0370f0.0] match is false 2014-08-02  
23:36:46,442 INFO [InsertThread --- 34] - [/usr/local/platform/.security/tomcat/trust-  
certs/d0aacffb.0] match is false 2014-08-02 23:36:46,442 INFO [InsertThread --- 34] -  
[/usr/local/platform/.security/tomcat/trust-certs/l01f99a6.0] match is false 2014-08-02  
23:36:46,442 INFO [InsertThread --- 34] - [/usr/local/platform/.security/tomcat/trust-  
certs/CUCM861.pem] match is true 2014-08-02 23:36:46,442 INFO [InsertThread --- 34] -  
[/usr/local/platform/.security/tomcat/trust-certs/CUCM861s.pem] match is true 2014-08-02  
23:36:46,442 INFO [InsertThread --- 34] - IN -- RSACryptoEngine.java - loadCertificate(..) -  
2014-08-02 23:36:46,442 INFO [InsertThread --- 34] - OUT -- RSACryptoEngine.java -  
loadCertificate - 2014-08-02 23:36:46,442 INFO [InsertThread --- 34] - IN --  
RSACryptoEngine.java - loadCertificate(..) - 2014-08-02 23:36:46,443 INFO [InsertThread --- 34]  
- OUT -- RSACryptoEngine.java - loadCertificate - 2014-08-02 23:36:46,443 DEBUG [InsertThread --  
- 34] - SUBJECTDN of DBCert and FileSystemCert compared correctly.. 2014-08-02 23:36:46,443  
DEBUG [InsertThread --- 34] - Certificate already exists in FileSystem.. 2014-08-02 23:36:46,443  
INFO [InsertThread --- 34] - IN -- RSACryptoEngine.java - loadCertificate(..) - 2014-08-02  
23:36:46,443 INFO [InsertThread --- 34] - OUT -- RSACryptoEngine.java - loadCertificate - 2014-  
08-02 23:36:46,443 INFO [InsertThread --- 34] - OUT -- CertDBUtil.java - checkDeleteAndImport -  
2014-08-02 23:36:46,443 INFO [InsertThread --- 34] - tomcat-trust Certificate successfully  
updated in trust-store by Change Notification.. 2014-08-02 23:36:46,443 INFO [InsertThread ---

```
34] - OUT -- CertKeystoreHandler.java - updateIntoKeystore - 2014-08-02 23:36:46,443 DEBUG
[InsertThread --- 34] - InsertThread --- 34 -- END -- 2014-08-02 23:36:46,443 INFO [InsertThread
--- 34] - OUT -- CertKeystoreHandler.java - run -
```



您在用户的文件系统能再确认上述。客栈的Tomcat托拉斯更新在托拉斯CERT (检查修改日期)下。

```
[root@CUCM861s tomcat]# pwd
/usr/local/platform/.security/tomcat [root@CUCM861s tomcat]# ls -la certs total 48 drwxr-xr-x 2
certbase ccmbase 4096 Aug 2 22:51 . drwxr-xr-x 5 root root 4096 Apr 4 14:33 .. -rwxr-xr-x 1
certbase ccmbase 941 Aug 2 22:51 tomcat.der -rwxr-xr-x 1 certbase ccmbase 64 Aug 2 22:51
tomcat.description -rwxr-xr-x 1 certbase ccmbase 2598 Aug 2 22:51 tomcat.keystore -rwxr-xr-x 1
certbase ccmbase 1330 Aug 2 22:51 tomcat.pem [root@CUCM861s tomcat]# ls -la trust-certs total
108 drwxr-xr-x 2 certbase ccmbase 4096 Aug 2 23:36 . drwxr-xr-x 5 root root 4096 Apr 4 14:33 ..
lrwxrwxrwx 1 certbase ccmbase 11 Aug 2 23:36 101f99a6.0 -> CUCM861.pem lrwxrwxrwx 1 certbase
ccmbase 42 Aug 2 23:36 7e0370f0.0 -> VeriSign_Class_3_Secure_Server_CA_-_G3.pem -rwxr-xr-x 1
certbase ccmbase 939 Aug 2 23:36 CUCM861.der -rwxr-xr-x 1 certbase ccmbase 44 Aug 2 23:36
CUCM861.description -rwxr-xr-x 1 certbase ccmbase 1326 Aug 2 23:36 CUCM861.pem -rwxr-xr-x 1
certbase ccmbase 941 Aug 2 22:51 CUCM861s.der -rwxr-xr-x 1 certbase ccmbase 44 Aug 2 22:51
CUCM861s.description -rwxr-xr-x 1 certbase ccmbase 1330 Aug 2 22:51 CUCM861s.pem lrwxrwxrwx 1
certbase ccmbase 12 Aug 2 23:36 d0aacffb.0 -> CUCM861s.pem -rwxr-xr-x 1 certbase ccmbase 3907
Aug 2 23:36 tomcat-trust.keystore -rwxr-xr-x 1 certbase ccmbase 1520 Apr 4 14:33
VeriSign_Class_3_Secure_Server_CA_-_G3.der -rwxr-xr-x 1 certbase ccmbase 44 Apr 4 14:33
VeriSign_Class_3_Secure_Server_CA_-_G3.description -rwxr-xr-x 1 certbase ccmbase 2114 Apr 4
14:33 VeriSign_Class_3_Secure_Server_CA_-_G3.pem [root@CUCM861s tomcat]# md5sum trust-
certs/CUCM861.der a0dd8031bcd3c269844df8a3fafd476c trust-certs/CUCM861.der
```

最终您能验证客栈的Tomcat托拉斯证书在GUI下。GUI将显示读从文件系统的我们证书，不是数据库。


Show ▾ Settings ▾ Security ▾ Software Upgrades ▾ Services ▾ Help ▾

## Certificate Configuration

 Delete  Download

---

**Status**

 Status: Ready

---



**Certificate Settings**

File Name	CUCM861.pem
Certificate Name	tomcat-trust
Certificate Type	trust-certs
Certificate Group	product-cpi
Description	Trust Certificate

---

**Certificate File Data**

```
[
  Version: V3
  Serial Number: 88769680872451706773275250466208361017
  SignatureAlgorithm: SHA1withRSA (1.2.840.113549.1.1.5)
  Issuer Name: L=KRAKOW, ST=MALOPOLSKA, CN=CUCM861, OU=TAC, O=CISCO, C=PL
  Validity From: Sat Aug 02 23:36:44 CEST 2014
  To: Thu Aug 01 23:36:43 CEST 2019
  Subject Name: L=KRAKOW, ST=MALOPOLSKA, CN=CUCM861, OU=TAC, O=CISCO, C=PL
  Key: RSA (1.2.840.113549.1.1.1)
  Key value:
  3082010a0282010100b46ce5c17323962babf797a031ecda073e02163e38f79600766c439fb1dd35d7891439fd2b88c9de9514b6
  f00fa42db0511eca717a9b7996558b6d5c7d5df6b97b338fc8f3524c78c5129495f19a56dd3436549ff338061844b99c93989a5f92
  0ac76cd245ebb2f38e0f0ca1ced2df87f8dd7f37c8f16561fc7a61d64a01f218eb6a23e56c95e91747299602b58e4512f37778028fd
  260029cc5def003768969c096b39880e677a2a008eb7517379717b5d45fb4ce8b9486921ef8828b58ec8348b2b41c34420401b4a
  28e4ee32b4c76dc8d590324d6774ac68f1a4ef54a0d6c277527ec4dc0223ea1457b152bd88c1178b0cedaa9c518512d3f92bae22
  d432b0203010001
  Extensions: 3 present
  [
    Extension: KeyUsage (OID.2.5.29.15)
    Critical: false
    Usages: digitalSignature, keyEncipherment, dataEncipherment, keyAgreement, keyCertSign,
  ]
  [
    Extension: ExtKeyUsageSyntax (OID.2.5.29.37)
    Critical: false
    Usage oids: 1.3.6.1.5.5.7.3.1, 1.3.6.1.5.5.7.3.2, 1.3.6.1.5.5.7.3.5,
  ]
]
```

那结束再生Tomcat证书进程在发行商节点的并且传播在集群间的此更改。

## 5. 故障排除

### 5.A. 已知问题说明-目录

在您之下能找到与证书和CM涉及普通的缺陷的列表。

A. 与一个变化的不正确传播在证书上的涉及：

[CSCuI78787](#) -不能在终止CertCN服务以后删除从CM 9.1的托拉斯Certs

[CSCto86463](#) -删除的证书再现，无法从CUCM删除证书

[CSCth79451](#) -证书应该更新DB条目，当更改主机名/IP时

当曾经多服务器的cert时，[CSCup28852](#) -电话重置每个7min由于cert更新

B. 找到在DR操作期间：

[CSCtn50405](#) - CUCM DRF备份不备份证书

[CSCtt95983](#) - CAPF不是证书backup'd/恢复与DRF

[CSCCup71297](#) -在DR恢复以后的不正确证书更新

C. 其他和文档：

[CSCCup54818](#) - CA签字的[DOC] certs (密钥大小>=4096)不支持混合模式

[CSCCud49047](#) - RTMT选项下载证书修改提示服务日志

[CSCCup88555](#) -需要验证序列号长度，当上传新建的cert时

## 5.B. 提示和窍门

a. 有在匹配enums对证书的对应的类型的数据库的一个表。您能相当经常看到这些enums在certificat涉及的DB查询(CM/certCN日志，表CERTIFICATESEVICECERTIFICATEMAP)。获得映射您请需要看一看在TYPECERTIFICATESEVIC

```
admin:run sql select * from TYPECERTIFICATESEVIC
enum name                               moniker                               usestruststore
====  =====
1    Phone-trust                         CERTIFICATE_SERVICE_PHONE_TRUST      t
2    Phone-VPN-trust                     CERTIFICATE_SERVICE_PHONE_VPN_TRUST  t
3    CallManager                         CERTIFICATE_SERVICE_CALLMANAGER      f
4    CallManager-trust                   CERTIFICATE_SERVICE_CALLMANAGER_TRUST t
5    tomcat                             CERTIFICATE_SERVICE_TOMCAT           f
6    tomcat-trust                        CERTIFICATE_SERVICE_TOMCAT_TRUST     t
7    ipsec                              CERTIFICATE_SERVICE_IPSEC            f
8    ipsec-trust                         CERTIFICATE_SERVICE_IPSEC_TRUST      t
9    CAPF                               CERTIFICATE_SERVICE_CAPF             f
10   CAPF-trust                          CERTIFICATE_SERVICE_CAPF_TRUST       t
11   TVS                                CERTIFICATE_SERVICE_TVS              f
12   TVS-trust                          CERTIFICATE_SERVICE_TVS_TRUST        t
13   directory-trust                    CERTIFICATE_SERVICE_DIRECTORY_TRUST  t
14   Phone-SAST-trust                   CERTIFICATE_SERVICE_PHONE_SAST_TRUST  t
15   Phone-CTL-trust                    CERTIFICATE_SERVICE_PHONE_CTL_TRUST   t
16   userlicensing-trust                CERTIFICATE_SERVICE_USERLICENSING_TRUST t
```

b. 请考虑您需要查询DB和列出所有证书。查询必须返回证书pkid和序列号、IP和证书的节点名、类型和其主题名称。如下请检查那个：

运行SQL由CERTIFICATEPROCESSNODEMAP.servername选择CERTIFICATE.pkid，CERTIFICATE.serialnumber，CERTIFICATEPROCESSNODEMAP.ipv4address，CERTIFICATEPROCESSNODEMAP.servername，TYPECERTIFICATESEVIC.name，从CERTIFICATEPROCESSNODEMAP内联证书的subjectname在CERTIFICATESEVICCERTIFICATEMAP.fkcertificate=CERTIFICATE.pkid加入TYPECERTIFICATESEVIC的CERTIFICATEPROCESSNODEMAP.fkcertificate=CERTIFICATE.pkid内联CERTIFICATESEVICCERTIFICATEMAP在TYPECERTIFICATESEVIC.enum=CERTIFICATESEVICCERTIFICATEMAP.tkcertificateservice命令

您能在片断之下找到的示例结果。

```
admin:run sql select CERTIFICATE.pkid, CERTIFICATE.serialnumber,
CERTIFICATEPROCESSNODEMAP.ipv4address, CERTIFICATEPROCESSNODEMAP.servername,
TYPECERTIFICATESEVIC.name, subjectname from CERTIFICATEPROCESSNODEMAP inner join CERTIFICATE
```



```

ON CERTIFICATEPROCESSNODEMAP.fkcertificate=CERTIFICATE.pkid inner join
CERTIFICATESERVICECERTIFICATEMAP ON
CERTIFICATESERVICECERTIFICATEMAP.fkcertificate=CERTIFICATE.pkid JOIN TYPECERTIFICATESERVICE ON
TYPECERTIFICATESERVICE.enum=CERTIFICATESERVICECERTIFICATEMAP.tkcertificateservice order by
CERTIFICATEPROCESSNODEMAP.servername
pkid                               serialnumber                       ipv4address servername
name                               subjectname
=====
=====
=====
=====
=====
===
e380b725-19b1-e3ec-71bf-1bb106d3d454 6a6967b3000000000003           10.48.46.29 CUCM861
CAPF-trust                          CN=Cisco Manufacturing CA,O=Cisco Systems
cc7b18b3-3a50-3dcb-578a-1ca50e076198 17226b84000000000012           10.48.46.29 CUCM861
CallManager-trust
CN=CUCM861,OU=TAC,O=CISCO,L=KRAKOW,ST=MALOPOLSKA,C=PL,2.5.4.5=#134034346262356539376665336362306
239323739666339333332636639373830303863623132316337356532316231623263663234616537656237363963323
935
664b66c9-485c-aedf-9848-ed34616b8fe7 1461af2a00000000000a           10.48.46.29 CUCM861
CallManager-trust
CN=TVGRTHC501,1.2.840.113549.1.9.2=#130a54564752544843353031,1.2.840.113549.1.9.8=#130d31302e313
0362e36352e323130,2.5.4.5=#130b46474c3137343732353241
cc7b18b3-3a50-3dcb-578a-1ca50e076198 17226b84000000000012           10.48.46.29 CUCM861
Phone-SAST-trust
CN=CUCM861,OU=TAC,O=CISCO,L=KRAKOW,ST=MALOPOLSKA,C=PL,2.5.4.5=#134034346262356539376665336362306
239323739666339333332636639373830303863623132316337356532316231623263663234616537656237363963323
935
0c879119-476e-c608-049c-03710c47cdd2 5a82belec30346af4c295fb8fc41a7f7 10.48.46.29 CUCM861
CallManager-trust CN=ciscolab-AD-CA,DC=cisco,DC=lab
a2735f97-cbc0-81f6-dadf-c145b657b22e 59dacc01beldbe84541bc8193a09267e 10.48.46.29 CUCM861
CallManager-trust L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-91e6eb10,OU=TAC,O=CISCO,C=PL
311830a0-8b8d-2216-7037-f60940976dcd 353fb24bd70f14a346c1f3a9ac725675 10.48.46.29 CUCM861
CallManager-trust CN=CAP-RTP-002,O=Cisco Systems
a2735f97-cbc0-81f6-dadf-c145b657b22e 59dacc01beldbe84541bc8193a09267e 10.48.46.29 CUCM861
CAPF                                L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-91e6eb10,OU=TAC,O=CISCO,C=PL
3fb48b23-84e7-cecf-dd24-e38cbd32c20f 6249ccbdf4df00155ddcd482dac43e6 10.48.46.29 CUCM861
Phone-SAST-trust L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL
a2735f97-cbc0-81f6-dadf-c145b657b22e 59dacc01beldbe84541bc8193a09267e 10.48.46.29 CUCM861
CAPF-trust                          L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-91e6eb10,OU=TAC,O=CISCO,C=PL
311830a0-8b8d-2216-7037-f60940976dcd 353fb24bd70f14a346c1f3a9ac725675 10.48.46.29 CUCM861
CAPF-trust                          CN=CAP-RTP-002,O=Cisco Systems
07849796-ff87-eee3-ef89-61f368b3e34a 7f325a657ab1316fbd8334b565e55033 10.48.46.29 CUCM861   TVS
L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL
9cbcb782-c37d-6f63-7608-2f51a683ceb6 609bf431ad462fe12b4c571866458dee 10.48.46.29 CUCM861
ipsec                                L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL
33a86281-4f7e-2833-0c4e-12a9259b5fea 484c2e9b1996a63e45e57dc067d68ec2 10.48.46.29 CUCM861
Phone-SAST-trust L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL
9cbcb782-c37d-6f63-7608-2f51a683ceb6 609bf431ad462fe12b4c571866458dee 10.48.46.29 CUCM861
ipsec-trust                          L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL
b98fc2a9-ffc1-31b2-f793-701a4b4b59c4 6cdbac937a099bf9eaf8324de5440ff4 10.48.46.29 CUCM861
CallManager-trust L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-0087c0a5,OU=TAC,O=CISCO,C=PL
533dbbfc-78ce-b46f-7d64-cd2b7c536f6d 42c86b2cf293630fe27bbddc7fd02a39 10.48.46.29 CUCM861
tomcat                               L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL
a6b18f66-bf72-261d-8ecd-bfcea02add4e 68052e2e9cd6c979079e6449ff873031 10.48.46.29 CUCM861
tomcat                               L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861s,OU=TAC,O=CISCO,C=PL
533dbbfc-78ce-b46f-7d64-cd2b7c536f6d 42c86b2cf293630fe27bbddc7fd02a39 10.48.46.29 CUCM861
tomcat-trust                          L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL
6fe4bd7d-76fe-1d19-4e5e-9cfa4f073487 692c45e5f81da30a779e73907e17ef7f 10.48.46.29 CUCM861
CAPF-trust                          L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-8480bdc7,OU=TAC,O=CISCO,C=PL
839d761f-f8e8-695b-bf1d-d08ce93b621e 6ecc7aa5a7032009b8cebcf4e952d491 10.48.46.29 CUCM861
tomcat-trust                          CN=VeriSign Class 3 Secure Server CA - G3,OU=Terms of use at
https://www.verisign.com/rpa (c)10,OU=VeriSign Trust Network,O=VeriSign\, Inc.,C=US
a6b18f66-bf72-261d-8ecd-bfcea02add4e 68052e2e9cd6c979079e6449ff873031 10.48.46.29 CUCM861

```

tomcat-trust L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861s,OU=TAC,O=CISCO,C=PL  
3c241de1-2eec-e63a-667c-c07147e298d5 5ff87b282b54dc8d42a315b568c9adff 10.48.46.29 CUCM861  
CallManager-trust CN=Cisco Root CA 2048,O=Cisco Systems  
6fe4bd7d-76fe-1d19-4e5e-9cfa4f073487 692c45e5f81da30a779e73907e17ef7f 10.48.46.29 CUCM861  
CAPF L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-8480bdc7,OU=TAC,O=CISCO,C=PL  
3c241de1-2eec-e63a-667c-c07147e298d5 5ff87b282b54dc8d42a315b568c9adff 10.48.46.29 CUCM861  
CAPF-trust CN=Cisco Root CA 2048,O=Cisco Systems  
6fe4bd7d-76fe-1d19-4e5e-9cfa4f073487 692c45e5f81da30a779e73907e17ef7f 10.48.46.29 CUCM861  
CallManager-trust L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-8480bdc7,OU=TAC,O=CISCO,C=PL  
5a4e9685-e9c4-dc52-586d-a36c927208b5 7612f960153d6f9f4e42202032b72356 10.48.46.29 CUCM861  
CallManager-trust CN=CAP-RTP-001,O=Cisco Systems  
3cf492fa-e88e-e751-040e-c31827870353 4a5d72eb7de2768c9d70260c8e3b4096 10.48.46.29 CUCM861  
CallManager L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861s,OU=TAC,O=CISCO,C=PL  
5a4e9685-e9c4-dc52-586d-a36c927208b5 7612f960153d6f9f4e42202032b72356 10.48.46.29 CUCM861  
CAPF-trust CN=CAP-RTP-001,O=Cisco Systems  
3cf492fa-e88e-e751-040e-c31827870353 4a5d72eb7de2768c9d70260c8e3b4096 10.48.46.29 CUCM861  
Phone-SAST-trust L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861s,OU=TAC,O=CISCO,C=PL  
e380b725-19b1-e3ec-71bf-1bb106d3d454 6a6967b3000000000003 10.48.46.29 CUCM861  
CallManager-trust CN=Cisco Manufacturing CA,O=Cisco Systems  
3cf492fa-e88e-e751-040e-c31827870353 4a5d72eb7de2768c9d70260c8e3b4096 10.48.46.29 CUCM861  
CallManager-trust L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861s,OU=TAC,O=CISCO,C=PL  
cc7b18b3-3a50-3dcb-578a-1ca50e076198 17226b84000000000012 10.48.46.29 CUCM861  
CallManager  
CN=CUCM861,OU=TAC,O=CISCO,L=KRAKOW,ST=MALOPOLSKA,C=PL,2.5.4.5=#134034346262356539376665336362306  
239323739666339333332636639373830303863623132316337356532316231623263663234616537656237363963323  
935  
cc7b18b3-3a50-3dcb-578a-1ca50e076198 17226b84000000000012 10.48.46.30 CUCM861s  
CallManager-trust  
CN=CUCM861,OU=TAC,O=CISCO,L=KRAKOW,ST=MALOPOLSKA,C=PL,2.5.4.5=#134034346262356539376665336362306  
239323739666339333332636639373830303863623132316337356532316231623263663234616537656237363963323  
935  
cc7b18b3-3a50-3dcb-578a-1ca50e076198 17226b84000000000012 10.48.46.30 CUCM861s  
Phone-SAST-trust  
CN=CUCM861,OU=TAC,O=CISCO,L=KRAKOW,ST=MALOPOLSKA,C=PL,2.5.4.5=#134034346262356539376665336362306  
239323739666339333332636639373830303863623132316337356532316231623263663234616537656237363963323  
935  
a2735f97-cbc0-81f6-dadf-c145b657b22e 59dacc01be1dbe84541bc8193a09267e 10.48.46.30 CUCM861s  
CallManager-trust L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-91e6eb10,OU=TAC,O=CISCO,C=PL  
a2735f97-cbc0-81f6-dadf-c145b657b22e 59dacc01be1dbe84541bc8193a09267e 10.48.46.30 CUCM861s  
CAPF L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-91e6eb10,OU=TAC,O=CISCO,C=PL  
a2735f97-cbc0-81f6-dadf-c145b657b22e 59dacc01be1dbe84541bc8193a09267e 10.48.46.30 CUCM861s  
CAPF-trust L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-91e6eb10,OU=TAC,O=CISCO,C=PL  
9cbcb782-c37d-6f63-7608-2f51a683ceb6 609bf431ad462fe12b4c571866458dee 10.48.46.30 CUCM861s  
ipsec L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL  
9cbcb782-c37d-6f63-7608-2f51a683ceb6 609bf431ad462fe12b4c571866458dee 10.48.46.30 CUCM861s  
ipsec-trust L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL  
533dbbfc-78ce-b46f-7d64-cd2b7c536f6d 42c86b2cf293630fe27bbddc7fd02a39 10.48.46.30 CUCM861s  
tomcat L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL  
533dbbfc-78ce-b46f-7d64-cd2b7c536f6d 42c86b2cf293630fe27bbddc7fd02a39 10.48.46.30 CUCM861s  
tomcat-trust L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL  
839d761f-f8e8-695b-bf1d-d08ce93b621e 6ecc7aa5a7032009b8cebcf4e952d491 10.48.46.30 CUCM861s  
tomcat-trust CN=VeriSign Class 3 Secure Server CA - G3,OU=Terms of use at  
<https://www.verisign.com/rpa> (c)10,OU=VeriSign Trust Network,O=VeriSign\, Inc.,C=US  
3c241de1-2eec-e63a-667c-c07147e298d5 5ff87b282b54dc8d42a315b568c9adff 10.48.46.30 CUCM861s  
CallManager-trust CN=Cisco Root CA 2048,O=Cisco Systems  
3c241de1-2eec-e63a-667c-c07147e298d5 5ff87b282b54dc8d42a315b568c9adff 10.48.46.30 CUCM861s  
CAPF-trust CN=Cisco Root CA 2048,O=Cisco Systems  
5a4e9685-e9c4-dc52-586d-a36c927208b5 7612f960153d6f9f4e42202032b72356 10.48.46.30 CUCM861s  
CallManager-trust CN=CAP-RTP-001,O=Cisco Systems  
5a4e9685-e9c4-dc52-586d-a36c927208b5 7612f960153d6f9f4e42202032b72356 10.48.46.30 CUCM861s  
CAPF-trust CN=CAP-RTP-001,O=Cisco Systems  
e380b725-19b1-e3ec-71bf-1bb106d3d454 6a6967b3000000000003 10.48.46.30 CUCM861s  
CallManager-trust CN=Cisco Manufacturing CA,O=Cisco Systems  
cc7b18b3-3a50-3dcb-578a-1ca50e076198 17226b84000000000012 10.48.46.30 CUCM861s

CallManager

```
CN=CUCM861,OU=TAC,O=CISCO,L=KRAKOW,ST=MALOPOLSKA,C=PL,2.5.4.5=#134034346262356539376665336362306239323739666339333332636639373830303863623132316337356532316231623263663234616537656237363963323935
```

```
3cf492fa-e88e-e751-040e-c31827870353 4a5d72eb7de2768c9d70260c8e3b4096 10.48.46.30 CUCM861s  
Phone-SAST-trust L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861s,OU=TAC,O=CISCO,C=PL  
664b66c9-485c-aedf-9848-ed34616b8fe7 1461af2a00000000000a 10.48.46.30 CUCM861s  
CallManager-trust
```

```
CN=TVGRTHC501,1.2.840.113549.1.9.2=#130a54564752544843353031,1.2.840.113549.1.9.8=#130d31302e3130362e36352e323130,2.5.4.5=#130b46474c3137343732353241
```

```
6fe4bd7d-76fe-1d19-4e5e-9cfa4f073487 692c45e5f81da30a779e73907e17ef7f 10.48.46.30 CUCM861s  
CallManager-trust L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-8480bdc7,OU=TAC,O=CISCO,C=PL
```

```
3cf492fa-e88e-e751-040e-c31827870353 4a5d72eb7de2768c9d70260c8e3b4096 10.48.46.30 CUCM861s  
CallManager-trust L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861s,OU=TAC,O=CISCO,C=PL
```

```
6fe4bd7d-76fe-1d19-4e5e-9cfa4f073487 692c45e5f81da30a779e73907e17ef7f 10.48.46.30 CUCM861s  
CAPF L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-8480bdc7,OU=TAC,O=CISCO,C=PL
```

```
3cf492fa-e88e-e751-040e-c31827870353 4a5d72eb7de2768c9d70260c8e3b4096 10.48.46.30 CUCM861s  
CallManager L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861s,OU=TAC,O=CISCO,C=PL
```

```
6fe4bd7d-76fe-1d19-4e5e-9cfa4f073487 692c45e5f81da30a779e73907e17ef7f 10.48.46.30 CUCM861s  
CAPF-trust L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-8480bdc7,OU=TAC,O=CISCO,C=PL
```

```
648651b6-f175-8307-7d19-810061b27eed 7da8a70felb3a9bebe2f85000498d935 10.48.46.30 CUCM861s  
ipsec L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861s,OU=TAC,O=CISCO,C=PL
```

```
0c27516c-bb4e-dc88-0bb9-f672394b265f 5de78d9912f1d88be14b2472c6eb1865 10.48.46.30 CUCM861s TVS  
L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861s,OU=TAC,O=CISCO,C=PL
```

```
b98fc2a9-ffc1-31b2-f793-701a4b4b59c4 6cdbac937a099bf9eaf8324de5440ff4 10.48.46.30 CUCM861s  
CallManager-trust L=KRAKOW,ST=MALOPOLSKA,CN=CAPF-0087c0a5,OU=TAC,O=CISCO,C=PL
```

```
a6b18f66-bf72-261d-8ecd-bfcea02add4e 68052e2e9cd6c979079e6449ff873031 10.48.46.30 CUCM861s  
tomcat-trust L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861s,OU=TAC,O=CISCO,C=PL
```

```
a6b18f66-bf72-261d-8ecd-bfcea02add4e 68052e2e9cd6c979079e6449ff873031 10.48.46.30 CUCM861s  
tomcat L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861s,OU=TAC,O=CISCO,C=PL
```

```
33a86281-4f7e-2833-0c4e-12a9259b5fea 484c2e9b1996a63e45e57dc067d68ec2 10.48.46.30 CUCM861s  
Phone-SAST-trust L=Krakow,ST=Malopolska,CN=CUCM9X,OU=TAC,O=Cisco Systems,C=PL
```

```
311830a0-8b8d-2216-7037-f60940976dcd 353fb24bd70f14a346c1f3a9ac725675 10.48.46.30 CUCM861s  
CAPF-trust CN=CAP-RTP-002,O=Cisco Systems
```

```
3fb48b23-84e7-cecf-dd24-e38cbd32c20f 6249ccbdf4df00155ddcd482dac43e6 10.48.46.30 CUCM861s  
Phone-SAST-trust L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL
```

```
311830a0-8b8d-2216-7037-f60940976dcd 353fb24bd70f14a346c1f3a9ac725675 10.48.46.30 CUCM861s  
CallManager-trust CN=CAP-RTP-002,O=Cisco Systems
```

```
0c879119-476e-c608-049c-03710c47cdd2 5a82belec30346af4c295fb8fc41a7f7 10.48.46.30 CUCM861s  
CallManager-trust CN=ciscolab-AD-CA,DC=cisco,DC=lab
```

```
e380b725-19b1-e3ec-71bf-1bb106d3d454 6a6967b3000000000003 10.48.46.30 CUCM861s  
CAPF-trust CN=Cisco Manufacturing CA,O=Cisco Systems
```

在可以，当请排除故障与同步证书的问题在DB和文件系统之间时，是上非常有用的。

c. 要检查证书到期到期日您能使用OpenSSL命令(要求根)：

示例输出：

```
[root@CUCM861 certs]# openssl x509 -noout -dates -in tomcat.pem notBefore=Aug 2 21:36:44 2014  
GMT notAfter=Aug 1 21:36:43 2019 GMT [root@CUCM861 certs]#
```

D. 要检查同上述一样，但是位于数据库您的证书需要认识您要验证证书的序列号或PKID。任务需要运行两bash命令(您需要执行“su -前期的informix公司”这)。

响应“转存对‘cert\_dumped\_to\_file’分隔符”“从号码= '6a6967b3000000000003'|dbaccess - e  
ccm9\_1\_2\_10000\_28的证书的挑选证书

上面将创建cert\_dumped\_to\_file的文件sql命令输出将存储的地方。重要事情是使用数据库的正确名称。您在dbaccess工具能找到它(当选择DB连接)时。

第二条命令用于显示日期：

SED 's/\ \//g' cert\_dumped\_to\_file |openssl x509 - noout -日期

示例输出：

```
[root@CUCM861 certs]# su - informix
-bash-3.2$ echo "unload to 'cert_dumped_to_file' delimiter " " select certificate from
certificate where serialnumber = '6a6967b3000000000003'"|dbaccess -e ccm9_1_2_10000_28 Database
selected. unload to 'cert_dumped_to_file' delimiter select certificate from certificate where
serialnumber = '6a6967b3000000000003' 1 row(s) unloaded. Database closed. -bash-3.2$ sed
's/\ \//g' cert_dumped_to_file | openssl x509 -noout -dates notBefore=Jun 10 22:16:01 2005 GMT
notAfter=May 14 20:25:42 2029 GMT
```

## 5.C. CCM服务证书验证

CallManager作为服务必须验证successful TLS/SSL握手的客户端证书用电话或网关。

错误可以在SDL/SDI跟踪找到与是指Openssl库的错误代码一起：

```
00370874.000|09:50:27.713|AppInfo|SdlSSLTCPListener : : verify_cb pre-verified=0,cert验证
errno=20,depth=0
00370875.000|09:50:27.713|AppInfo|HandleSSLERror -失败的证书验证 : (验证错误 : 无法的20)-获
得192.168.255.95:52089的本地发布者证书
```

Openssl错误代码列表：

<https://www.openssl.org/docs/apps/verify.html#DIAGNOSTICS>

当您生成时CA签名证书保证他们生成与正确密钥用法按照CSR的要求，否则他们也许不适当地验证：

[http://www.cisco.com/c/en/us/td/docs/voice\\_ip\\_comm/cucm/cucos/8\\_6\\_1/cucos/osg\\_861\\_cm/iptpc\\_h6.html#wp1055278](http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/cucos/8_6_1/cucos/osg_861_cm/iptpc_h6.html#wp1055278)

CUCM为证书操作使用openssl库，因此您能手工验证证书在根下。如下提交外部CA签字的Tomcat证书的示例：

```
[root@cucmpub trust-certs]# ls -l e87b20d3.0
lrwxrwxrwx 1 certbase ccmbase 31 Jul 8 00:01
e87b20d3.0 -> molszowy-WIN-V8HGEMMBHOU-CA.pem
```

```
[root@cucmpub trust-certs]# cd /usr/local/platform/.security/tomcat/certs
[root@cucmpub certs]# openssl verify -CApath /usr/local/platform/.security/tomcat/trust-certs
tomcat.pem
```

tomcat.pem: OK

## 5.D. Tomcat托拉斯存储和keystore验证

Tomcat能使用SSL的两个不同的实施：

- JSSE实施提供作为Java运行时一部分(从1.4)
- APR实施，默认情况下使用Openssl引擎。

Tomcat使用哪个SSL实施可以是被登记的server.xml (查找在/usr/local/thirdparty/jakarta-tomcat/conf)配置文件在HTTPS连接器配置下- JSSEIMPLEMENTATION使用，证书在pem/DER表APR实施使用kestores：

```
<Connector SSLEnabled= "真" URIEncoding="UTF-8" acceptCount="100"
ciphers="TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384,TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256,TLS_RSA_WITH_AES_256_CBC_SHA,TLS_DHE_DSS_WITH_AES_256_CBC_SHA,TLS_RSA_WITH_AES_128_CBC_SHA,TLS_DHE_RSA_WITH_AES_128_CBC_SHA,SSL_RSA_WITH_3DES_EDE_CBC_SHA,SSL_DHE_RSA_WITH_3DES_EDE_CBC_SHA" clientAuth=
"错误" disableUploadTimeout= "真" enableLookups= "错误" keystoreFile =
/usr/local/platform/.security/tomcat/certs/tomcat.keystore" keystorePass="pPSTJpLa8QLuEpVp"
keystoreType="PKCS12" maxHttpHeaderSize="8192" maxSpareThreads="150"
maxThreads="150" minSpareThreads="25" port="443" protocol="HTTP/1.1" scheme= " https"
secure= "真的" server=" "sessionTimeout="3600" sslProtocol="TLSv1.2"
sessionCacheSize="10000"/>
```

提交的证书，当您设法首次连接到Tomcat时主机的其中一个Web应用程序在一密码保护的keystore查找：

```
/usr/local/platform/.security/tomcat/certs/tomcat.keystore
```

此keystore可以访问与Openssl utilite检查它是内容：

```
openssl pkcs12 -在/usr/local/platform/.security/tomcat/certs/tomcat.keystore -信息-密码
file:/usr/local/platform/.security/tomcat/keys/tomcat.passphrase
```

在keystorePass在提示符后，将被输入输出提供在命令上将显示Tomcat服务PEM编码的证书，并且专用密钥。

Tomcat托管的服务，需要出站SSL连接的证书验证(例如对LDAP的安全连接由IMS)，使用Tomcattrust.keystore作为服务器提交的证书的验证的托拉斯存储设备在SSL握手期间。

Truststore位置：

```
/usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore
```

从托拉斯存储得到证书列表：

```
openssl pkcs12 -在/usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore -信息-密码
file:/usr/local/platform/.security/tomcat/keys/tomcat-trust.passphrase
```

转存证书从托拉斯存储到临时文件并且同时查看他们：

```
openssl pkcs12 -在/usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore -信息-密码
file:/usr/local/platform/.security/tomcat/keys/tomcat-trust.passphrase 2>dev/null 1>/root/tomcat-
trust.pem
```

```
openssl crl2pkcs7 -nocrl -certfile /root/tomcat-trust.pem|openssl pkcs7 -print_certs -noout -文本
```

如果证书，必须在truststore，未命中，可以导入到keystore：

```
keytool -importcert -文件somecert.pem -storetype pkcs12 - keystore
/usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore - storepass $ (cat
/usr/local/platform/.security/tomcat/keys/tomcat-trust.passphrase)
```

如果全托拉斯存储是损坏的，可以恢复与跟随的脚本：

```
#!/bin/bash
```

```
mv /usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore { , .bak}
```

```
passphrase=$(cat /usr/local/platform/.security/tomcat/keys/tomcat-trust.passphrase)
```

在/usr/local/platform/.security/tomcat/trust-certs/ \*.pem的f

响应“处理\$f”

```
/usr/local/thirdparty/java/j2sdk/bin/keytool - importcert - keystore
```

```
/usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore -别名“$(基本名称${f%%.pem})” - noprompt - storepass $passphrase - storetype pkcs12 - providername JsafeJCE -  
providerclass com.rsa.jsafe.provider.JsafeJCE - providerpath
```

```
/usr/local/thirdparty/java/cryptojFIPS.jar -文件“$f”
```

执行

```
chown certbase : ccmbase /usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore
```

```
chmod 755 /usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore
```

```
chcon--reference=/usr/本地/platform/.security/tomcat/trust-certs/tomcat-trust.keystore.bak
```

```
/usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore
```

脚本的文本在文件可以保存和被执行用以下方式：

```
bash /root/truststore_repair.sh
```