

# Управление сертификатами CUCM и уведомление об изменении

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## 1. Введение

Этот документ описывает, что Управление сертификатами в Cisco, Унифицированная Операционная система является очень важным компонентом CUCM и самого VOS, потому что много приложений и функций полагаются на сертификаты, например: TVS, CAPF, Безопасность по умолчанию или Унифицированные страницы Serviceability. CertMgmt предоставляет единый репозиторий сертификатов и API для других компонентов для легкого включения безопасности и безопасной передачи данных (TLS).

"Сервис" Уведомления об изменении Сертификата Cisco был представлен в основном synchronize некоторые сертификаты через узлы в кластере и проверен ServM. Это делает условие сертификата легче и быстрее для администратора в больших развертываниях.

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## 2. Как сохранены сертификаты?

Certs сохранены в файловой системе, а также в базе данных, и сервис CN поддерживает синхронизацию их между узлами. Сертификатам файловой системы дают более высокий приоритет, чем сертификаты DB.

Таблицы базы данных:

- СЕРТИФИКАТ - хранит все сведения о сертификате как предмет, отправитель, последовательный, сертификат в формате PEM и т.д.
- CERTIFICATESSERVICECERTIFICATEMAP - мapp между сертификатом и Типом сертификата, например, Доверие CallManager, Доверие CAPF
- CERTIFICATEHASHMAP - мapp между сертификатом и хэшем сертификата

- CERTIFICATEPROCESSNODEMAP - мapp между сертификатом и processnode
- CERTIFICATESTRUSTROLEMAP - мapp между сертификатом и role\_enum
- TYPECERTIFICATESSERVICE - сопоставляет перечисления, которые можно найти в CERTIFICATESSERVICECERTIFICATEMAP к Типам сертификата (т.е. tomcat, доверие tomcat, callmanager и т.д.)

Хранилище в файловой системе:

- certs: открытый ключ (X509Certificate - Собственный сертификат) (.der и .pem форматируют с .description), и также в pkcs12 keystore формат.
- ключи: секретный ключ и пароли и CSR.
- доверие-certs: все надежные сертификаты (.der и формат .pem) и также в PKCS-12 keystore формат.

Типовые пути:

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

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

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

Трастовый-certs подкаталог содержит символические ссылки, которые обращаются к файлам .pem со специальными именами, состоят из хэша openssl и, как правило, 0 расширений, которые могут использоваться в качестве итератора, когда вам генерировали тот же хэш. См. пример ниже:

```
[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 и CN Сертификата разрабатывают обзор

Когда сертификат является загрузкой под Страницей администрирования операционной системы, файл в.PEM и формате.DER записан в файловую систему, и Таблицы базы данных обновлены.

Эти сертификаты становятся затем реплицированными посредством репликации DB в другие узлы в кластере.

Некоторые типы сертификатов взяты процессом Уведомления об изменении Сертификата Cisco на удаленных узлах и загружены на файловой системе тем же самым процессом.

Процесс Уведомления об изменении Сертификата Cisco уведомлен для изменений на этих таблицах: СЕРТИФИКАТ и CERTIFICATESSERVICECERTIFICATEMAP.

certs, взятые Уведомлением об изменении Сертификата Cisco, настроены в,

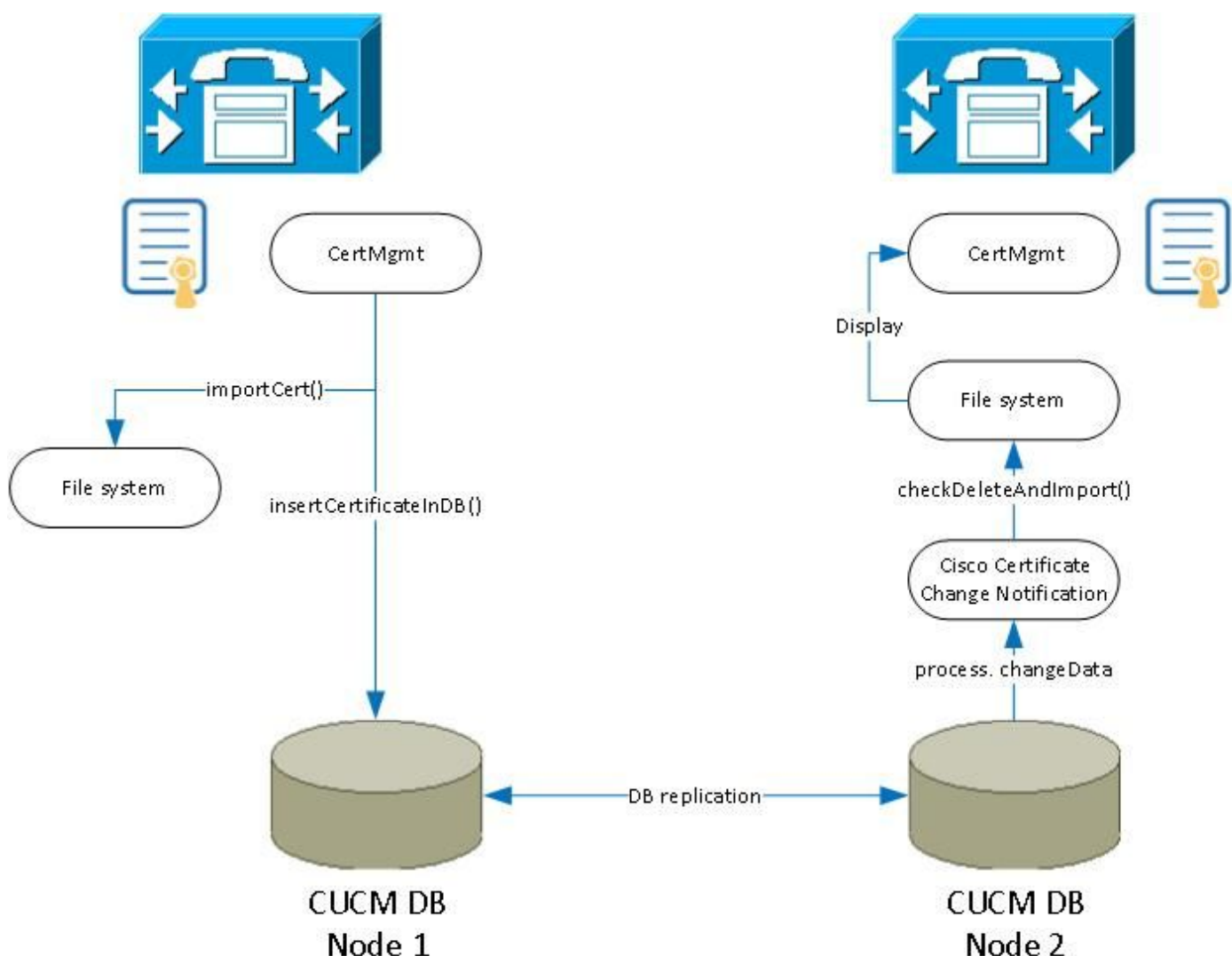
придерживаются файла конфигурации /usr/local/platform/conf/certM.conf:

CHANGE\_NOTIFICATION\_UNIT=tomcat, доверие tomcat, доверие каталога, CallManager, Телефонное доверие SAST, доверие CallManager

Кроме того, сервис выполняет каждые 30 min (1800 сек.) по умолчанию для хранения всего certs в синхронизации, этот таймер также настроен в вышеупомянутом файле: CN\_SYNC\_TIMER=1800

После того, как загруженный, реплицированный в удаленные узлы и загруженный там также на файловую систему страница администратора ОС отобразит сертификаты.

Важно обратить внимание, что Страница администратора ОС и все другие сервисы читают сертификаты из файловой системы а не из DB.



## 4. Примеры

В этом разделе вы рассмотрите 3 других сценария управления сертификатами.

Для каждого сценария вы придерживаетесь процесса подробно и используете снимки экрана и журналы.

Для них сценарий вы используете 2 кластера узла с версией 9.1.2.10000-28 CUCM.

### Легенда:

CM - Управление сертификатами (журналы могут быть найдены в соответствии со 'списком файлов activelog platform/log/certMgmtXXXXX.log '),  
certCN - Сервис Уведомления об изменении сертификата (журналы могут быть найдены в соответствии со 'списком файлов activelog platform/log/certCNXXXXX.log '),

Примеры на основе CUCM кластеризуют 9.1.2.10000-28, два узла:

ПАБ, IP:10.48.46.29, HOSTNAME:CUCM861

SUB, IP: 10.48.46.30, HOSTNAME:CUCM861s

Сертификаты представлены в Странице администратора ОС с серийным номером в десятичном формате. DB хранит их номер в HEX. Для преобразования серийных номеров между HEX/DEC, можно использовать это онлайнное [программное средство](#).

Регистрационные фрагменты содержат некоторые комментарии (полужирный, начиная с '##').

## 4. О. Вставьте новый трастовый tomcat сертификат.

В первом сценарии вы загружаете сертификат в доверие tomcat через Страницу администратора ОС, ниже шагов произойдет на обоих узлах в кластере:

o. Вручную загрузите сертификат

b. Сертификат будет сохранен в файловых системах CM.

c. Сертификат будет вставлен в DB CM.

d. Сертификат будет реплицирован через репликацию DB в абонента. CertCN на обоих узлах (паб и sub) будет уведомлен об изменении. Это не выполнит действие с узлом паба.

e. CertCN на подузле будет сертификат импорта к файловым системам и добавлять его к keystore.

\_\_\_\_\_ F. После этих шагов сертификат будет видим на GUI под Страницей администратора ОС.

o. Когда загрузка сертификата от файла PEM имеет место. Придержитесь ниже снимков экрана:

**Certificate List**

Generate New Upload Certificate/Certificate chain Download CTL Generate CSR

**Status**  
4 records found

**Certificate List (1 - 4 of 4)**

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

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>

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**  
Status: Ready

**Upload Certificate/Certificate chain**

Certificate Name\* tomcat-trust

Description

Upload File Przeglądaj... tomcat.pem

Upload File Close

\* - indicates required item.

**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	<a href="#">tomcat.pem</a>	<a href="#">tomcat.der</a>	Self-signed certificate generated by system
tomcat-trust	trust-certs	<a href="#">CUCM9X.pem</a>	<a href="#">CUCM9X.der</a>	Signed Certificate
tomcat-trust	trust-certs	<a href="#">CUCM861.pem</a>	<a href="#">CUCM861.der</a>	Trust Certificate
tomcat-trust	trust-certs	<a href="#">CUCM861s.pem</a>	<a href="#">CUCM861s.der</a>	Trust Certificate
tomcat-trust	trust-certs	<a href="#">VeriSign_Class_3_Secure_Server_CA - G3.pem</a>	<a href="#">VeriSign_Class_3_Secure_Server_CA - G3.der</a>	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
3376d884bb7f97050b674d0b12fdb33ba156dcb32a98b9a41d76b4f966bce8f50123c7806e33adbbdbd8e611c82623f390e4ee2c
692f9d123c7dbbe83dae6acdbaf674a60b6c1c75372228de3d90a72a6e49138a220b5a88db35304de72f91893e3126745de5f237
65ab910203010001
Extensions: 3 present
[
Extension: KeyUsage (OID.2.5.29.15)
Critical: false
Usage: 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,
]
]
```

Серийный номер нашего нового свидетельства:

Dec: 162503161730851213217569888696899890998

Hex: 7A40F8743A793B44FE802B5F3E1E6F36

Сертификат записан в файловые системы (вы будете придерживаться этого процесса в следующих шагах),

```
[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 ccbase 4096 Aug 2 23:36 certs drwxr-xr-x 2 certbase ccbase 4096 Aug 2
23:36 keys drwxr-xr-x 2 certbase ccbase 4096 Aug 4 15:21 trust-certs [root@CUCM861 tomcat]# ls
-la certs total 48 drwxr-xr-x 2 certbase ccbase 4096 Aug 2 23:36 . drwxr-xr-x 5 root root 4096
Apr 4 12:47 .. -rwxr-xr-x 1 certbase ccbase 939 Aug 2 23:36 tomcat.der -rwxr-xr-x 1 certbase
ccbase 64 Aug 2 23:36 tomcat.description -rwxr-xr-x 1 certbase ccbase 2598 Aug 2 23:36
tomcat.keystore -rwxr-xr-x 1 certbase ccbase 1326 Aug 2 23:36 tomcat.pem
[root@CUCM861 tomcat]# ls -la trust-certs total 140 drwxr-xr-x 2 certbase ccbase 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

```

Как вы можете видеть новый сертификат сохранен в трастовом-certs каталоге. Общее имя (который равняется имени хоста узла CUCM) использовалось в качестве имени файла. Это было сохранено как .pem и .der.

Символическая ссылка 25ffab9b.0-> CUCM9X.pem был также создан, и сертификат был добавлен к tomcat-trust.keystore.

Наконец, вы сравниваете контрольную сумму md5 файла свидетельства на подузле, чтобы доказать, что это - тот же сертификат.

**в.** Давайте бросим более внимательный взгляд на то, как это происходит, что сертификат был сохранен в файловую систему. От журнала CM (комментарии во фрагменте, полужирном, запускается с ##):

```

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 -
```

**с . Сертификат был сохранен в файловых системах, теперь это должно быть вставлено в DB. Эта операция выполнена также API CM.**

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 :  
7a40f8743a793b44fe802b5f3e1e6f36 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 TYPESEVICEROLEMAP (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] - 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} 2014-08-04 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  
MQswCQYDVQQGEWJQTEDEWMBQGA1UEChMNQ2lZy28gU3lzdGVtczEMMAoGA1UECXMd  
VEFDMDQ8wDQYDVQQDEwZDVUNNOVgxEzARBgNVBAgtCk1hbG9wb2xza2ExDzANBgNV  
BACTBktyYWtvdzAeFw0xNDA4MDQxMzE5MDdaFw0xOTA4MDMxMzE5MDZaMGoxCzAJ  
BgNVBAYTALBMMRYwFAYDVQQKEw1DaXNjbyBTeXN0ZW1zMQwwCgYDVQQLEwNUQUxMx  
DzANBgNVBAMTBkNVQ005WDEtMBEgA1UECBMKTWFsYm9uZS3BvbHNRyYTEPMA0GA1UEBxMG  
S3Jha293MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAY0IoIzjyDpaC  
/gGMTwsJUaoyvAdxwRhAUvsro7lqr+rON+HQApZBFdT9qL0Uv+cAvCTKfXs14QJ  
Il6vxcMWBqWf6S10IwAE9DyhY2ZkuRiLX0024eRnf30FePH9j15eVVUw14CKaVS3  
xa9yq6yaYa4o7PE6QypK9SDIKm2IHQ6j1HX26ZXLKLJmHhFK5cnFbo+7UUzdtie  
u3+XBQtnTqsS/bM7oVbcsyqYuaQddrT5Zrzo9QEjx4BuM62929jmEcgmI/OQ504s  
aS+dEjx9u+g9rmrNuvZ0pgtsHHU3IijePZCnKm5JE4oiC1qI2zUwTevkYk+MSZ0  
XeXyN2WrkQIDAQAB0lcwVTALBgNVHQ8EBAMCARwwJwYDVR0lBCAwHgYIKwYBBQUH  
AwEGCCsGAQUFBWMCBggrBgEFBQcDBTAdBgNVHQ4EFgQUt6dlJJ8fTevcRHxEQKG9  
fYV3SPswDQYJKoZIhvcNAQELBQADggEBALAJ9jn5CQWQhMA+Eg9C6QUyLqKNN7Lshy  
loSSE7Nn5RsIB4PQ9cD8Wv17bzRYp70yFoQ1B+Z8U4FgSCWKbGAGAUbMyb/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
CERTIFICATESTRUSTROLEMAP 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 CERTIFICATESTRUSTROLEMAP table :tomcat-trust ::PKID
:4152b36b-002e-68ac-711d-c373fa940779 ::toInsertInCertSrvMap:true 2014-08-04 15:21:27,781 DEBUG
[main] - Insert query of CERTIFICATESTRUSTROLEMAP :INSERT INTO CERTIFICATESTRUSTROLEMAP 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. После того, как certs реплицированы, сервис CertCN на обоих узлах уведомлены об изменении, внесенном в ДВ. Это может быть замечено в журналах. Ниже показов вход в систему Издателя**

```
## notification about the change comes, service is notified about change in CERTIFICATE and
CERTIFICATESERVICECERTIFICATEMAP 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><cdftime>1407158486</cdftime><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
CERTIFICATESERVICECERTIFICATEMAP - I option.. 2014-08-04 15:21:28,019 DEBUG [Thread-5] - Updated
Data in CERTIFICATESERVICECERTIFICATEMAP
::<msg><type>DBL</type><table>certificateservicecertificatemap</table><tableid>44</tableid><acti
on>I</action><time>1407158487</time><new><cdrserver>2</cdrserver><cdftime>1407158487</cdftime><pk
id>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 15:21:28,019 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 -
```

**е. На абоненте вы видите, что то же происходит, certCN уведомлен относительно изменения, и затем импортируете сертификат на файловую систему, создает символические ссылки и т.д... Это может быть замечено в ниже журнала:**

```
## 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.FK CERTIFICATE 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 CERTIFICATESERVICECERTIFICATEMAP - I option.. ## ... and CERTIFICATESERVICECERTIFICATEMAP 2014-08-04 15:21:29,316 DEBUG [Thread-5] - Updated Data in CERTIFICATESERVICECERTIFICATEMAP ::<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-eld6-42e5-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@1ec9f34> to connection list 2014-08-04 15:21:29,355 DEBUG [InsertThread --- 35] - Marking connection <com.informix.jdbc.IfxSqlConnect@1ec9f34> 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.IfxSqlConnect@lec9f34> to connection list 2014-08-04 15:21:29,364 DEBUG [InsertThread --- 35] - Marking connection <com.informix.jdbc.IfxSqlConnect@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.IfxSqlConnect@lec9f34> from connection list 2014-08-04 15:21:29,369 DEBUG [InsertThread --- 35] - Connection <com.informix.jdbc.IfxSqlConnect@lec9f34> is not closed, adding it back to the pool entry <database, jdbcurl2> 2014-08-04 15:21:29,369 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
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><action>I</action><time>1407158489</time><new><cdrserver>2</cdrserver><cdftime>1407158487</cdftime><pkid>798ff6e1-eld6-42e5-a4e6-30d9d7360d6d</pkid><fkcertificate>4152b36b-002e-68ac-711d-c373fa940779</fkcertificate><tkcertificateservice>6</tkcertificateservice><ifx\_replcheck>6043699681953972226</ifx\_replcheck></new></msg> 2014-08-04 15:21:34,322 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.IfxSqlConnect@lec9f34> to connection list  
2014-08-04 15:21:34,324 DEBUG [Thread-5] - Marking connection  
<com.informix.jdbc.IfxSqlConnect@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.IfxSqlConnect@lec9f34> from connection list 2014-08-04  
15:21:34,329 DEBUG [Thread-5] - Connection <com.informix.jdbc.IfxSqlConnect@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.IfxSqlConnect@lec9f34> to connection list 2014-08-04 15:21:34,330 DEBUG  
[InsertThread --- 36] - Marking connection <com.informix.jdbc.IfxSqlConnect@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.IfxSqlConnect@lec9f34> from connection list 2014-08-04 15:21:34,334 DEBUG  
[InsertThread --- 36] - Connection <com.informix.jdbc.IfxSqlConnect@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.IfxSqlConnect@lec9f34> to connection list 2014-08-04 15:21:34,334 DEBUG  
[InsertThread --- 36] - Marking connection <com.informix.jdbc.IfxSqlConnect@lec9f34> 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.IfxSqlConnect@lec9f34> from connection list 2014-08-04 15:21:34,351 DEBUG  
[InsertThread --- 36] - Connection <com.informix.jdbc.IfxSqlConnect@lec9f34> 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.** Когда вы теперь посмотрели на сертификат на уровне файловой системы , вы можете проверить контрольную сумму (md5sum) md5 и будете видеть, что это совпадает с на узле издателя.

На GUI можно проверить, что то же сравнивает серийный номер.

```

[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 ccbase 4096 Aug 2 22:51 certs drwxr-xr-x 2 certbase ccbase 4096 Aug 2
22:51 keys drwxr-xr-x 2 certbase ccbase 4096 Aug 4 15:21 trust-certs [root@CUCM861s tomcat]# ls
-la certs total 48 drwxr-xr-x 2 certbase ccbase 4096 Aug 2 22:51 . drwxr-xr-x 5 root root 4096
Apr 4 14:33 .. -rwxr-xr-x 1 certbase ccbase 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 a0a2e12a42e4bbbff10655c9b299839d9 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:
3082010a0282010100cb42282338f20e9682fe018c4f0b0951aa32bc0771c1184052fb2ba3b96aafceace37e1d002964115d4f0f6a
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,
```

Delete

Download

## 4. В. Удалите трастовый tomcat сертификат

Во втором сценарии вы удалите трастовый tomcat сертификат, загруженный в 4. Раздел.

Когда анализируют данный пример, необходимо помнить о ниже оператора дизайна:

"Сервис уведомления об изменении не распространится удаление сертификата от базы доверенных сертификатов tomcat узла к другому. Это подразумевает, что удаляют сертификата из доверия tomcat от одного узла, автоматически не удаляет тот же сертификат из других узлов. Это поведение внедрено, чтобы гарантировать, что у администратора будет способность удалить определенные узлы из доверчивых приложений на других узлах из-за учитываемых факторов безопасности".

Выше допустимо только для Типа сертификата доверия tomcat.

Удалите операцию, состоит из ниже шагов:

- a. удалите сертификат из страницы CM.
- b. файлы сертификата удалены из файловых систем
- c. certCN умирает на издателя и подписчике. Никакая операция не требуется ими обоими.
- d. удаление того же трастового tomcat сертификата от узла абонента

o. Удалите операцию, инициируемую из страницы CM

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
```

Свидетельство удалено из файловых систем и соответствующих строк в базе данных, также удаленной. Сам сертификат не удален из таблицы CERTIFICATE. Давайте придерживаться этого в журналах CM (встроенные комментарии):

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 :
7a40f8743a793b44fe802b5f3e1e6f36 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
## 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.IfxSqliConnect@196e136> from connection list 2014-08-19
23:25:13,690 DEBUG [main] - Connection <com.informix.jdbc.IfxSqliConnect@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. Чтобы подтвердить, что операция была успешна на уровне файловой системы, давайте проверим каталог доверия tomcat:**

```

[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

```

Как вы можете видеть 3 файла были удалены (CUCM9X.pem, CUCM9X.der, CUCM9X.description) и символическая ссылка.

Сервис с . CertCN на издателе и подписчике будет уведомлен об изменении в таблице CERTIFICATESSERVICECERTIFICATEMAP механизмом уведомления об изменении DB.

От узла издателя:

```

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 CERTIFICATESSERVICECERTIFICATEMAP - I option..
2014-08-19 23:25:13,812 DEBUG [Thread-5] - Updated Data in CERTIFICATESSERVICECERTIFICATEMAP
::<msg><type>DBL</type><table>certificateservicecertificatemap</table><tableid>44</tableid><acti
on>D</action><time>1408483513</time><old><cdrserver>2</cdrserver><cdrttime>1407158487</cdrttime><p
kid>798ff6e1-e1d6-42e5-a4e6-30d9d7360d6d</pkid><fkcertificate>4152b36b-002e-68ac-711d-
c373fa940779</fkcertificate><tkcertificateservice>6</tkcertificateservice><ifx_replcheck>6043699
681953972226</ifx_replcheck></old></msg>
2014-08-19 23:25:18,818 INFO [Thread-5] - OUT - process.

```

Ничто не должно быть сделано на узле издателя, так как все было сделано API CM. То же, которое можно наблюдать в certCN, входит в систему абонента.

d. Удалите тот же трастовый tomcat сертификат на узле абонента, выполняют почти ту же операцию, как наблюдался относительно узла издателя. Единственной разницей является заключительный шаг, удаляют запись из таблицы СЕРТИФИКАТА. От журналов CM (только часть, которая содержит изменение):

```
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;)
```

Снова certCN будет уведомлен об изменении в таблице CERTIFICATESERVICECERTIFICATEMAP на обоих узлах. Никакое действие не будет сделано certCN, так как вся работа была сделана CM.

#### 4. С . Восстановите сертификат tomcat на узле издателя

В третьем сценарии вы посмотрели на процесс tomcat.pem регенерации.

можно восстановить на узле издателя и затем посмотреть , как это изменение распространяется к второму узлу.

Эта операция состоит из ниже шагов:

o. восстановите действие, инициируемое под страницей CM.

b. выше триггеров генерируют новый сертификат tomcat и помещают его в файловые системы

c . новый сертификат tomcat вставлен в DB (старый будет перезаписан) CM. Эта информация будет реплицирована по репликации DB.

d. старый трастовый tomcat сертификат удален из файловых систем (+remove это от keystore)

e. доверие tomcat импортировано в файловые системы (+, соответствующие записи DB проверены).

\_\_\_\_\_ F. certCN на подузле умирает, и удалите доверие tomcat из файловых систем и из keystore.

g. наконец новый повторно импортирован в файловые системы и повторно добавлен к keystore.

o. Удар восстанавливает, показывают нам ниже выходных данных (метка времени 23:36):

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

### Certificate Configuration

Regenerate Download Generate CSR

**Status**

**i** 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
0ac76cd245ebb2f38e0f0ca1ced2df87f8dd7f37c8f16561fc7a61d64a01f218eb6a23e56c95e91747299602b58e4512f3778028fd
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,
]
]
```

Regenerate Download Generate CSR

Серийный номер нашего нового свидетельства:

Dec: **88769680872451706773275250466208361017**

Hex: **42C86B2CF293630FE27BBDDC7FD02A39**

Сертификат, сохраненный в файловых системах (от root):

```
[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
```

Как вы можете видеть (на основе времени изменения) наш новый сертификат сохранен в certs каталоге (как tomcat.der) и в доверии-certs (как CUCM861.der). Контрольная сумма (md5sum) MD5 доказывает, что это - тот же сертификат, сохраненный дважды. Символическая ссылка (101f99a6.0-> CUCM861.pem) также обновлена.

**b. Сама регенерация сделана СМ. Давайте бросим более внимательный взгляд на процесс регенерации:**

```
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 -
```

**с**. В данный момент у вас есть новый сертификат, готовый на уровне файловой системы (**tomcat.pem** в **certs**). **CUCM861.pem** в доверии-**certs** также здесь, но не был добавлен на данном этапе. Это - покрытие позже.

Теперь время для обновления нашего сертификата **tomcat** в **DB** для совместного использования изменения с другими узлами.

Перед регенерацией вы видели сертификат **tomcat** в **DB**:

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

Как вы можете видеть существует два сертификата **tomcat** в **DB** (для **PUB** и **SUB**), старое свидетельство **tomcat** имело **serialnumber = '6cf5bc855b681f658f9e7506d3ec6ea5'**. **PKID** нашего свидетельства **tomcat** является **'533dbbfc-78ce-b46f-7d64-cd2b7c536f6d'** и не изменяется когда регенерация свидетельства.

Проверьте дальнейший файл журнала **CM** (комментарии во фрагменте):

```
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 - Certificate 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.IfxSqlConnect@1a7789c> to connection list 2014-08-02 23:36:45,382 DEBUG
[main] - Marking connection <com.informix.jdbc.IfxSqlConnect@1a7789c> as used 2014-08-02
23:36:45,382 DEBUG [main] - Got connection from pool 2014-08-02 23:36:45,389 DEBUG [main] -
```

getConnection: 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] - getConnection: 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] - getConnection: 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, CERTIFICATESERVICECERTIFICATEMAP 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] - getConnection: 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", ISSUERNAM="L=KRAKOW,ST=MALOPOLSKA,CN=CUCM861,OU=TAC,O=CISCO,C=PL", SERIALNUMBER="42c86b2cf293630fe27bbddc7fd02a39", CERTIFICATE="-----BEGIN CERTIFICATE-----  
MIIDpzCCAo+gAwIBAgIQQshrLPKTYw/ie73cf9AqOTANBgkqhkiG9w0BAQUFADBjMQswCQYDVQQGEWJQTEDEOMAwGAlUEChMFQ01TQ08xDDAKBgNVBAsTA1RBQzEQMA4GA1UEAxMHQ01VDTTg2MTETMBEgAlUECBMKTUFMT1BPTFNLQTEPMA0GA1UEBxMGS1JB S09XMB4XDTE0MDgwMjIxMzY0NFoXDTE5MDgwMTIxMzY0M1owYzELMAkGAlUEBhMCUEwxMjYzARBgNVBAoTBUJUNU0NPMQwwCgYDVQQLEwNUQUxMxEDAOBgNVBAMTB0NVQ004NjExEzARBgNVBAGTCK1BTE9QT0xTS0ExDzANBgNVBAcTbktSQUtPVzCCAS1wDQYJKoZIhvcNAQEBBQADggEPADCCAQoCggEBALRs5cFzI5Yrq/eXoDHs2gc+AhY+OPeW AHZsQ5+x3TXXiRQ5/SuIyd6VFLbwD6QtsFEeynF6m3mWVYttXH1d9r17M4/I81JMeMUS1JXxmbdNDZUn/M4BhhEuZyTmJpFkgrHbNjF67Lzjg8Moc7S34f43X83yPF1Yfx6YdZKafIY62oj5WyV6RdHKZYCY5FEvN3eAKP0mACnMXe8AN2iWnAlrOYgOZ3oqAI63UXN5cXtdRftM6LlIaShviCiljsg0iytBw0QgQBtKKOTuMrTHbcjVkJDNZ3SsaPgk71SglsJ3Un7E3AIj6hRXsVK9iMEXiwztqpxRhRLT+SuuItQysCAwEAAaNXMFUwCwYDVR0PBAQDAGK8MCcGAlUdJQQgMB4GCCsGAQUFBwMBBggrBgEFBQcDAGYIKwYBBQUHAWUwHQYDVR0OBBYEFPOxKMSHC4gnQQqIgLAgxQjIH0srMA0GCSqGSIb3DQEBBQUAA4IBAQBvSfWzSC1nLTYKuOPs4RtOUQXfuUMLhI74QoBJS98A8a8w1KgM8ilXukBg6VZ37xgYm2uaLTCunXeG/EiN9nkC+kgJ9y78Q4jmRh2//wqdvAkI+RR9745RRntD4xS3sv3uGSljEGd1eCC76NUWpQAWezz0AlAEAE/EWO7hlyZVRghuDhq5vLVNrh0gQkjve56/K7E9E83PqV09JTAGRvjL9/uRpeooucACJYI9WPyXMYa6wsIpCqFRLocYIUGCy9ufroflvptawOJQGZ9Z9k2SpanRD2LJunqgY8Vbveq/7Z2xndm8j36Lyn4IrESrk7Umpr27fn8KktYvMaD -----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.** Поскольку вы помните, что видели то же свидетельство в файловых системах как tomcat и доверие tomcat. До настоящего времени только tomcat каждый был должным образом обновлен в файловых системах. Давайте придерживаться дальнейшего журнала СМ, чтобы видеть, как доверие tomcat обновлено на этом узле:

```

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 CERTIFICATESTRUSTROLEMAP. 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.FK CERTIFICATE 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] -
getConnection: 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 -
```

**е. В данный момент у вас нет трастового tomcat свидетельства в файловых системах. СМ создаст его и повторно импортирует его к базе доверенных сертификатов:**

```
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 -
```

**Теперь новое доверие tomcat вернулось в файловых системах. То, что уехало, должно проверить его, это существует в DB и если это отсутствует, добавьте соответствующие записи.**

```
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 CERTIFICATESERVICECERTIFICATEMAP table :tomcat-trust ::PKID :533dbbfc-78ce-b46f-7d64-cd2b7c536f6d ::toInsertInCertSrvMap:false **## Since it has not been previously 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 CERTIFICATETRUSTROLEMAP table ...** 2014-08-02 23:36:46,185 DEBUG [main] - checkExistingTrustCertificateForRole Query :SELECT PKID,FKCERTIFICATE, TKTRUSTROLE FROM CERTIFICATETRUSTROLEMAP 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 CERTIFICATETRUSTROLEMAP 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 -
```

Роль СМ заканчивается здесь. Давайте смотреть на certCN, входит в систему узла издателя. Так как это подписано на уведомление об изменении DB, это будет уведомлено об изменении сертификата в таблице СЕРТИФИКАТА.

```
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 -
```

Так никакие изменения к сертификатам был сделан certCN сервисом на узле издателя.

\_\_\_\_\_ F. Теперь позволяет, смотрят на то, как это похоже на узле абонента. Новое свидетельство было вставлено в DB и реплицировано в узел абонента. certCN был уведомлен об изменении в DB.

Отрезанный с полной операцией на sub ниже (комментирует в линии):

```
## 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@1fefa51> to connection list 2014-08-02 23:36:46,194 DEBUG
```

[InsertThread --- 34] - Marking connection <com.informix.jdbc.IfxSqliConnect@lfeba51> 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.IfxSqliConnect@lfeba51> from connection list 2014-08-02 23:36:46,198 DEBUG  
[InsertThread --- 34] - Connection <com.informix.jdbc.IfxSqliConnect@lfeba51> 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;) **## quering 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.IfxSqliConnect@lfeba51> to connection list 2014-08-02 23:36:46,199 DEBUG  
[InsertThread --- 34] - Marking connection <com.informix.jdbc.IfxSqliConnect@lfeba51> 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.IfxSqliConnect@lfeba51> from connection list 2014-08-02 23:36:46,204 DEBUG  
[InsertThread --- 34] - Connection <com.informix.jdbc.IfxSqliConnect@lfeba51> 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 :42c86b2cf293630fe27bbddc7fd02a39 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 DNNAME: 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] - deleteDERandPEM: 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

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[/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/101f99a6.0] 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 -

```

Можно подтвердить выше на файловых системах абонента. доверие tomcat для паба было обновлено под доверием-certs (проверьте дату модификации).

```



[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

```

Наконец можно проверить трастовый tomcat сертификат паба под GUI. GUI покажет нам сертификат, которые считаны из файловых систем, не базы данных.


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
  Signature Algorithm: 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,
  ]
]
```

Это заканчивается, процесс восстанавливают сертификат tomcat на узле издателя и распространяются это изменение через кластер.

## 5. Устранение неполадок

### 5. Известные предупреждения - классификация

Ниже вас может найти список общих дефектов, которые отнесены к сертификатам и CM.

О. Отнесенный к неправильному распространению изменения в сертификатах:

[CSCu178787](#) - Не удалить Тростовый Certs из CM 9.1 даже после остановки сервиса CertCN

[CSCto86463](#) - Удаленные сертификаты вновь появляются, неспособные удалить сертификаты из CUCM

[CSCth79451](#) - Записи DB сертификата должны быть обновлены при изменении имени

хоста/IP

[CSCup28852](#) - позвоните перезагружает каждые 7 min из-за обновления свидетельства при использовании свидетельства мультисервера

В. Найденный во время операций DRS:

[CSCtn50405](#) - Резервная копия DRF CUCM не резервирует сертификаты

[CSCtt95983](#) - Сертификат CAPF не backup'd/restored с DRF

[CSCup71297](#) - Неправильное обновление сертификата после восстановления DRS

С . Прочее и doc:

[CSCup54818](#) - [DOC] certs подписанный CA (размер ключа >=4096) не поддерживаемый в смешанном режиме

[CSCud49047](#) - Опция RTMT для загрузки служебных журналов уведомления об изменении сертификата

[CSCup88555](#) - Потребность проверить длину серийного номера при загрузке нового свидетельства

## 5. В. Советы и приемы

о. Существует одна таблица в базе данных, которая совпадает с перечислениями к соответствующему типу сертификата. Вы видите эти перечисления довольно часто в certificate связанных запросах DB (журналы CM/certCN, таблица CERTIFICATESERVICECERTIFICATEMAP). Получить то сопоставление вас должно смотреть на TYPECERTIFICATESERVICE

```
admin:run sql select * from TYPECERTIFICATESERVICE
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_TV               f
12    TVS-trust                          CERTIFICATE_SERVICE_TV_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
```

б. Давайте полагать, что необходимо сделать запрос DB и перечислить все сертификаты. Запрос должен вернуть pkid и серийный номер сертификата, IP и имени узла, типа сертификата и его имени субъекта. Проверьте тот ниже:

работайте sql выбирают CERTIFICATE.pkid, CERTIFICATE.serialnumber, CERTIFICATEPROCESSNODEMAP.ipv4address, CERTIFICATEPROCESSNODEMAP.servername, TYPECERTIFICATESERVICE.name, subjectname от СЕРТИФИКАТА внутреннего объединения



CERTIFICATEPROCESSNODEMAP ON (включено) внутреннее объединение  
 CERTIFICATEPROCESSNODEMAP.fkcertificate=CERTIFICATE.pkid  
 CERTIFICATESSERVICECERTIFICATEMAP ON (включено),  
 CERTIFICATESSERVICECERTIFICATEMAP.fkcertificate=CERTIFICATE.pkid  
 ПРИСОЕДИНЯЮТСЯ К TYPECERTIFICATESSERVICE ON (включено) заказ  
 TYPECERTIFICATESSERVICE.enum=CERTIFICATESSERVICECERTIFICATEMAP.tkcertificateser  
 vice CERTIFICATEPROCESSNODEMAP.servername

Типовой результат можно найти в ниже фрагмента.

```
admin:run sql select CERTIFICATE.pkid, CERTIFICATE.serialnumber,
CERTIFICATEPROCESSNODEMAP.ipv4address, CERTIFICATEPROCESSNODEMAP.servername,
TYPECERTIFICATESSERVICE.name, subjectname from CERTIFICATEPROCESSNODEMAP inner join CERTIFICATE
ON CERTIFICATEPROCESSNODEMAP.fkcertificate=CERTIFICATE.pkid inner join
CERTIFICATESSERVICECERTIFICATEMAP ON
CERTIFICATESSERVICECERTIFICATEMAP.fkcertificate=CERTIFICATE.pkid JOIN TYPECERTIFICATESSERVICE ON
TYPECERTIFICATESSERVICE.enum=CERTIFICATESSERVICECERTIFICATEMAP.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 5a82be1ec30346af4c295fb8fc41a7f7 10.48.46.29 CUCM861
CallManager-trust CN=ciscolab-AD-CA,DC=cisco,DC=lab
a2735f97-cbc0-81f6-dadf-c145b657b22e 59dacc01be1dbe84541bc8193a09267e 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 59dacc01be1dbe84541bc8193a09267e 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 59dacc01be1dbe84541bc8193a09267e 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=#134034346262356539376665336362306
23932373966633933332636639373830303863623132316337356532316231623263663234616537656237363963323
935
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=#130d31302e313
0362e36352e323130,2.5.4.5=#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 6249ccbedf4df00155ddcd482dac43e6 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

```

Когда решают проблемы с синхронизацией сертификата между DB и файловыми системами, выше может быть очень полезным.

с . Для проверки даты окончания срока действия сертификата, можно использовать команду OpenSSL (требует root):

Пример выходных данных:

```
[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. Проверять то же как выше, но для сертификата, который находится в базе данных, необходимо знать серийный номер или PKID сертификата, который вы хотите проверить. Задача требует для выполнения двух команд удара (необходимо сделать "su - informix", предшествующий это).

это "разгружается к 'cert\_dumped\_to\_file' разделителю, "" выбирают сертификат от сертификата где serialnumber = '6a6967b3000000000003'" |dbaccess-e ccm9\_1\_2\_10000\_28

Выше создаст файл **cert\_dumped\_to\_file** , где будут сохранены выходные данные команды SQL. Важная вещь должна использовать корректное название базы данных. Можно найти его в dbaccess программном средстве (при выборе соединения с БД).

Вторая команда используется для отображения даты:

```
sed 's/\\//g' cert_dumped_to_file | openssl x509-noout - даты
```

Пример выходных данных:

```
[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. С . Проверка Трудовой книжки ССМ

CallManager как сервис должен проверить сертификат клиента для successful TLS/ПОЕТРЕРЖЕЕНИЯ СРЯЗИ SSL с телефоном или шлюзом.

Ошибки могут быть найдены в трассировках SDL/SDI вместе с кодом ошибки, который обращается к библиотеке OpenSSL:

```
00370874.000 |09:50:27.713 |AppInfo |SdISSTCPLListener:: verify_cb pre-verified=0, проверка
свидетельства errno=20, depth=0
00370875.000 |09:50:27.713 |AppInfo |HandleSSLError - Проверка сертификата отказала:
(Проверка error:20) - неспособный получить локальный сертификат отправителя для
192.168.255.95:52089
```

Список кодов ошибки OpenSSL:

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

Когда вы генерируете подписанные сертификаты CA, гарантируют, что они генерируются с корректным Ключевым Использованием согласно просьбе в CSR, иначе они не могли бы быть проверены должным образом:

[http://www.cisco.com/c/en/us/td/docs/voice\\_ip\\_comm/cucm/cucos/8\\_6\\_1/cucos/osg\\_861\\_cm/iptpch6.html#wp1055278](http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/cucos/8_6_1/cucos/osg_861_cm/iptpch6.html#wp1055278)

CUCM использует openssl библиотеку для операций сертификата, таким образом, можно вручную проверить сертификат под root. Пример для сертификата Tomcat, подписанного внешним CA, представлен ниже:

```
[root@cucmpub trust-certs]# ls -l e87b20d3.0
lrwxrwxrwx 1 certbase ccmbase 31 Jul 8 00:01
e87b20d3.0 -> molszowy-WIN-V8HGEMMBHOUC-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. База доверенных сертификатов Tomcat и keystore проверка

Tomcat может использовать две других реализации SSL:

- реализация JSSE, предоставленная как часть Среды исполнения Java (начиная с 1.4)
- реализация APR, которая использует механизм OpenSSL по умолчанию.

В том, какая реализация SSL используется Tomcat, можно зарегистрироваться **server.xml** (расположенный в */usr/local/thirdparty/jakarta-tomcat/conf*), файл конфигурации под конфигурацией разъёма HTTPS - keystores используется реализацией JSSE, сертификаты в pem/der-form используются реализацией APR:

```
<Разъём SSLEnabled = "истинный" URIEncoding = "UTF 8" acceptCount = "100" шифры =
"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 = "ложь" disableUploadTimeout =
"истинный" enableLookups = "ложь" keystoreFile =
"/usr/local/platform/.security/tomcat/certs/tomcat.keystore" keystorePass = "pPSTJpLa8QLuEpVp"
keystoreType = "PKCS12" maxHttpHeaderSize = "8192" maxSpareThreads = "150" maxThreads
= "150" minSpareThreads = "25" порт = "443" протокол = схема "HTTP/1.1" = "https" защищают
= "истинный" сервер = "sessionTimeout = "3600" sslProtocol = "TLSv1.2" sessionCacheSize =
"10000"/>
```

Сертификат, который представлен, когда вы пытаетесь инициировать соединение с одним из web - приложений, размещенных Tomcat, расположен в защищенном паролем keystore:

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

К этому keystore можно обратиться с OpenSSL utilite, чтобы проверить, что это - содержание:

```
pkcs12 openssl - в/usr/local/platform/.security/tomcat/certs/tomcat.keystore - информации -
пароль file:/usr/local/platform/.security/tomcat/keys/tomcat.passphrase
```

Выходные данные предоставленных выше команды покажут рет-закодированный сертификат Сервиса Tomcat, и также закрытый ключ после keystorePass будет введен в приглашение.

Размещенные Tomcat сервисы, которым нужна Проверка сертификата для исходящих

подключений SSL (таких как безопасное соединение с LDAP IMS), используют tomcat-trust.keystore в качестве трастового хранилища для проверки сертификатов, представленных сервером во время подтверждения связи SSL.

Местоположение базы доверенных сертификатов:

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

Получите список сертификатов от базы доверенных сертификатов:

```
pkcs12 openssl - в/usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore - информация - пароль file:/usr/local/platform/.security/tomcat/keys/tomcat-trust.passphrase
```

Разгрузите сертификаты от базы доверенных сертификатов до временного файла и просмотрите их внезапно:

```
pkcs12 openssl - в/usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore - информация - пароль file:/usr/local/platform/.security/tomcat/keys/tomcat-trust.passphrase 2> dev/пустой указатель 1>/root/tomcat-trust.pem
```

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

Если сертификат, который должен быть в базе доверенных сертификатов, отсутствует, это может быть импортировано в keystore:

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

Если целая база доверенных сертификатов повреждена, она может быть восстановлена со следующим сценарием:

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

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

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

```
для f в/usr/local/platform/.security/tomcat/trust-certs / *.pem
```

сделать

повторите "Обработку \$f"

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

```
keystore/usr/local/platform/.security/tomcat/trust-certs/tomcat-trust.keystore - искажают "$ ($
```

```
базового имени {f %%. pem})"-noprompt-storepass $passphrase-storetype pkcs12-providername
```

```
JsafeJCE-providerclass com.rsa.jsafe.provider. JsafeJCE-
```

```
providerpath/usr/local/thirdparty/java/cryptojFIPS.jar - файл "$f"
```

сделанный

```
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 - ссылка = '/usr/local/platform/.security/tomcat/trust-certs/tomcat-
```

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

Текст сценария может быть сохранен в файле и выполнен следующим способом:

*удал/root/truststore\_repair.sh*