Configurar e pesquise defeitos o proxy do telefone da linha lateral do SORVO do CUBO no modo seguro

Índice

Introdução

Este documento descreve como configurar o Cisco Unified Border Element (CUBO) enquanto um proxy do telefone assim que o telefone podem se registrar ao gerente das comunicações unificadas de Cisco (CUCM) de uma rede pública. A comunicação entre o telefone e o CUBO é segura neste desenvolvimento.

Pré-requisitos

Requisitos

A Cisco recomenda que você tenha conhecimento destes tópicos:

- Gerenciamento certificado em CUCM e em CUBO

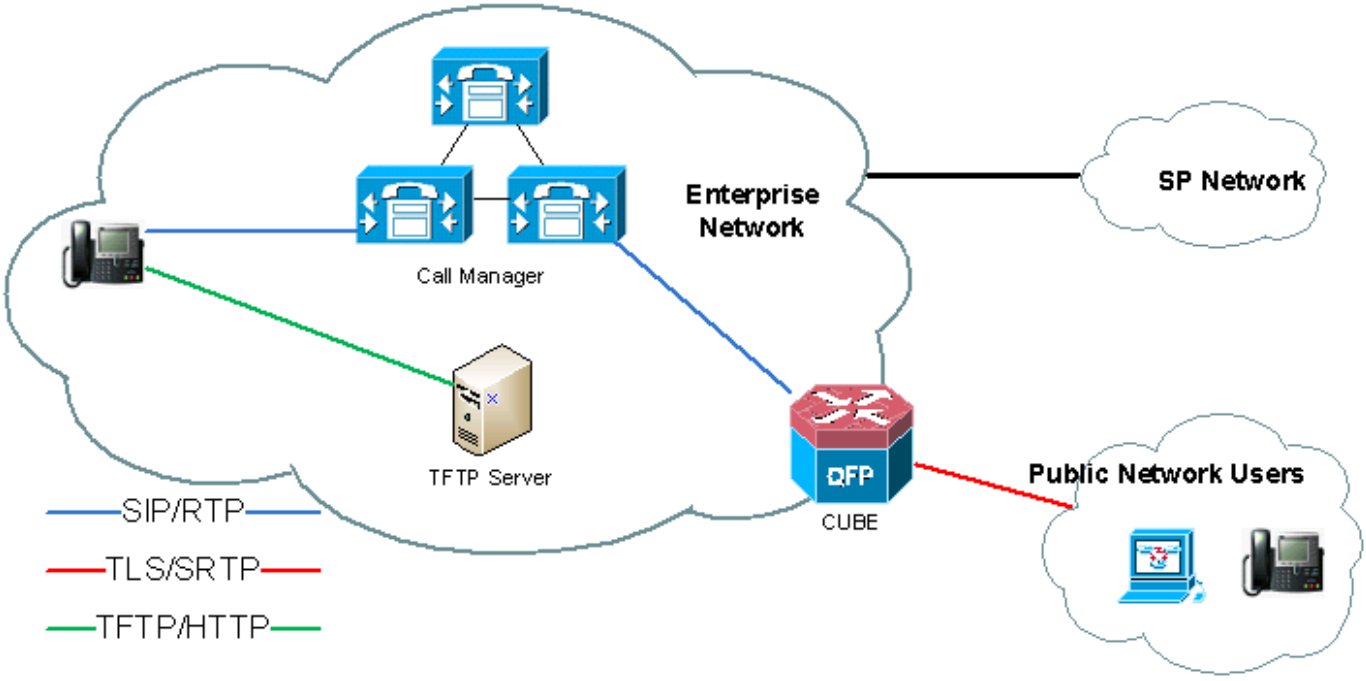
Componentes Utilizados

- Versão do Cisco IOS running 15.3 ou 15.4 do CUBO

- CUCM
- Telefone IP na rede pública

As informações neste documento foram criadas a partir de dispositivos em um ambiente de laboratório específico. Todos os dispositivos utilizados neste documento foram iniciados com uma configuração (padrão) inicial. Se a sua rede estiver ativa, certifique-se de que entende o impacto potencial de qualquer comando.

Diagrama de Rede



Legenda:

CUBO do telefone ----------(DP1) (DP2) ---------- CUCM
ACCESS-CUBE-IP-ADDR CORE-CUBE-IP-ADDR CUCM-IP-ADDR

DP1 - Dial-peer 1 que está enfrentando o Internet/rede pública

DP2 - Dial-peer 2 que está enfrentando a rede interna, isto é CUCM

Endereços IP de Um ou Mais Servidores Cisco ICM NT usados neste documento:
ACCESS-CUBE-IP-ADDR - 172.18.110.120 (a relação que os telefones do IP remoto conectarão a)
CORE-CUBE-IP-ADDR - 10.50.209.100 (os usos do CUBO do endereço interno conectar a CUCM)
CUCM-IP-ADDR - 10.50.209.215 (endereço IP do servidor CUCM)

Problemas conhecidos com disposições do proxy do telefone do CUBO

- CSCup83118: Discar KPML falha para telefones do SORVO CUCM Lineside.
  Solução: Isto é fixado nas versões do Cisco IOS 15.3(3)M6, 15.4(3)M1 e 15.4(3)S1.

- CSCup85001: CUCM Lineside caracteriza necessidades de apoiar nomes de host para o conjunto CUCM.

Solução: Isto é fixado nas versões do Cisco IOS 15.4(3)M1 e 15.4(3)S1.

- CSCun86062: TS:SS:XE3.13: O telefone-proxy do CUBO não segue PKCS1 a assinatura do formulário CTL

Solução: Isto é fixado nas versões do Cisco IOS 15.3(3)M4, 15.3(3)S4 e 15.4(3)M1.

Note: Determinados telefones como os telefones 78XX/88XX funcionarão somente no modo NON-seguro (o TCP somente)

Nota: CUCM não pode ter um tronco do SORVO que aponta ao núcleo-endereço no CUBO. Os registros serão rejeitados com o código de erro 405 de CUCM, com aviso: o tronco do SORVO 399 cucm9 recusa o REGISTRO.

Configurar

Nota: A configuração difere entre as versões do Cisco IOS 15.3 e 15.4. Há umas seções específicas para cada Versão do IOS. Contudo, há uma configuração comum ajustada também para ambas as Versões do IOS, que são cobertas primeiramente.

Configuração comum

1. Crie um certificado selfsigned no CUBO.

Nota: O proxy do telefone do CUBO apoia somente a criptografia de bit 1024. Nenhum outro tamanho da criptografia foi testado para trabalhar.

```
!--- Generate a 1024 rsa key first, add “exportable”
crypto key generate rsa modulus 1024 label selfsign exportable !--- Configure the trustpoint
crypto pki trustpoint selfsign enrollment selfsigned subject-name CN=CUBE, O=CISCO revocation-
check none rsakeypair selfsign !--- Enroll the certificate crypto pki enroll selfsign
```

2. Importe a identidade CUCM e o certificado de Manufacturing_CA ao CUBO.

Use o arquivo callmanager.pem para esta etapa.

Em CUCM, navegue a **Cisco unificou o > gerenciamento de certificado do > segurança da administração do OS**. A cópia & cola o CallManager.pem ao bloco de notas.

No CUBO, adicionar o ponto confiável e importe o certificado usando o terminal.

```
crypto pki trustpoint ccm1
 enrollment terminal
 revocation-check none
```

```
crypto pki authenticate ccm1

!--- paste the certificate download from CUCM here and say 'yes' to accept the certificate.
```

3. Execute o mesmo procedimento explicado em etapa 2 para o certificado de Cisco_Manufacturing_CA.

Configurar a versão do Cisco IOS 15.3

1. Crie o arquivo CTL.

```
voice-ctl-file ctl_secure
 record-entry cucm-tftp trustpoint ccm1
 record-entry capf trustpoint Cisco_Manufacturing_CA
 record-entry selfsigned trustpoint selfsignx
 complete
```

2. Adicionar configuração da manipulação do serviço, do fluxo de chamadas, do encabeçamento da passagem e da mensagem do cubo (perfis do SORVO).

```
voice service voip
 no ip address trusted authenticate
 allow-connections sip to sip
 fax protocol t38 version 0 ls-redundancy 0 hs-redundancy 0 fallback none
 sip
  header-passing
  registrar server
  nat auto
  pass-thru headers unsupp
  pass-thru subscribe-notify-events all
  pass-thru content unsupp
  registration passthrough


voice class uri 1 sip
 host ipv4:[ACCESS-CUBE-IP-ADDR]
!
voice class uri 2 sip
 host ipv4:[CORE-CUBE-IP-ADDR]
!
voice class uri 3 sip
 host ipv4:[CUCM-IP-ADDR]
!
voice class sip-profiles 11
 request INVITE peer-header sip contact copy ">(;.*)" u01
 request INVITE peer-header sip SIP-Req-URI copy "sip:([^@]*@)" u02
 response 200 peer-header sip contact copy ">(;.*)" u03
 request CANCEL peer-header sip SIP-Req-URI copy "sip:([^@]*@)" u04
 request INVITE sip-header Cisco-Guid remove
 request INVITE sip-header Contact modify "(.*)" "\1\u01"
 request INVITE sip-header SIP-Req-URI modify ".*" "INVITE sip:\u02[CUCM-IP-ADDR] SIP/2.0"
 response 200 sip-header Contact modify "(.*)" "\1\u03"
 request CANCEL sip-header SIP-Req-URI modify ".*" "CANCEL sip:\u04[CUCM-IP-ADDR] SIP/2.0"
!
voice class sip-profiles 10
 request INVITE peer-header sip contact copy ">(;.*)" u01
 request REGISTER peer-header sip contact copy ">(;.*)" u02
 request INVITE sip-header Cisco-Guid remove
```

```
 request INVITE sip-header Contact modify "(.*)" "\1\u01"
 request REGISTER sip-header Contact modify "(.*)" "\1\u02"
!
!
voice class sip-hdr-passthrulist 10
 passthru-hdr Remote-Pary-ID
 passthru-hdr Call-Info
 passthru-hdr Content-ID
 passthru-hdr Allow-Events
 passthru-hdr supported
 passthru-hdr require
 passthru-hdr Referred-By
!
voice class sip-copylist 10
 sip-header SIP-Req-URI
 sip-header contact
!
voice class sip-copylist 11
 sip-header contact

dspfarm profile 1 transcode universal security
 codec g722-64
 codec g711ulaw
 codec g711alaw
 codec g729ar8
 codec g729abr8
 maximum sessions 24
 associate application CUBE

sip-ua
 timers connection aging 60
 registrar 1 ipv4:[CUCM-IP-ADDR] expires 3600 refresh-ratio 100 tcp
 crypto signaling default trustpoint selfsignx
```

3. Crie o proxy do telefone.

```
voice-phone-proxy phone_proxy
 tftp-server address ipv4 [CUCM-IP-ADDR] local-addr ipv4 [CORE-CUBE-IP-ADDR] acc-addr ipv4
[ACCESS-CUBE-IP-ADDR]
 ctl-file ctl_secure
 access-secure
 service-map server-addr ipv4 [CUCM-IP-ADDR] port 8443 acc-addr ipv4 [ACCESS-CUBE-IP-ADDR] port
8443
 service-map server-addr ipv4 [CUCM-IP-ADDR] port 8080 acc-addr ipv4 [ACCESS-CUBE-IP-ADDR] port
8080
 service-map server-addr ipv4 [CUCM-IP-ADDR] port 3804 acc-addr ipv4 [ACCESS-CUBE-IP-ADDR] port
3804
 complete
voice-phone-proxy tftp-address ipv4 [CORE-CUBE-IP-ADDR]
 port-range 40000 50000
voice-phone-proxy tftp-address ipv4 [ACCESS-CUBE-IP-ADDR]
 port-range 40000 50000
voice-phone-proxy file-buffer size 60
```

4. Crie os dialpeers do acesso e do núcleo.

```
dial-peer voice 1 voip
```

```
 phone-proxy phone_proxy signal-addr ipv4 [ACCESS-CUBE-IP-ADDR] cucm ipv4 [CUCM-IP-ADDR]
 description *** Dialpeer Facing Outside ***
 session protocol sipv2
 session target registrar
 session transport tcp tls
 destination uri 2
 incoming uri request 1
 voice-class sip call-route url
 voice-class sip profiles 10
 voice-class sip registration passthrough registrar-index 1
 voice-class sip pass-thru headers 10
 voice-class sip copy-list 10
 dtmf-relay rtp-nte
 srtp
 codec transparent
!
dial-peer voice 2 voip
 description *** Dialpeer Facing CUCM ***
 session protocol sipv2
 session target ipv4:[CUCM-IP-ADDR]
 session transport tcp
 destination uri 1
 incoming uri via 3
 voice-class sip call-route url
 voice-class sip profiles 11
 voice-class sip pass-thru headers 10
 voice-class sip copy-list 11
 dtmf-relay rtp-nte
 codec transparent
```

Termine a configuração em funcionamento para a versão do Cisco IOS 15.3

```
crypto pki trustpoint ccm1
 enrollment terminal
 revocation-check none
!
crypto pki trustpoint Cisco_Manufacturing_CA
 enrollment terminal
 revocation-check none
!
!
crypto pki trustpoint selfsignx
 enrollment selfsigned
 subject-name cn=3925_pod5
 revocation-check none
 rsakeypair selfsignx


crypto pki certificate chain ccm1
 certificate ca 55C2FCBFBAC552B7C6CED497D4AD33F8
 [Certificate data omitted]

crypto pki certificate chain Cisco_Manufacturing_CA
 certificate ca 6A6967B3000000000003
 [Certificate data omitted]

crypto pki certificate chain selfsignx
 certificate self-signed 01
 [Certificate data omitted]
```

```
voice service voip
 no ip address trusted authenticate
 allow-connections sip to sip
 fax protocol t38 version 0 ls-redundancy 0 hs-redundancy 0 fallback none
 sip
  header-passing
  registrar server
  nat auto
  pass-thru headers unsupp
  pass-thru subscribe-notify-events all
  pass-thru content unsupp
  registration passthrough
!
!
voice class uri 1 sip
 host ipv4:172.18.110.120
!
voice class uri 2 sip
 host ipv4:10.50.209.100
!
voice class uri 3 sip
 host ipv4:10.50.209.215
!
voice class sip-profiles 11
 request INVITE peer-header sip contact copy ">(;.*)" u01
 request INVITE peer-header sip SIP-Req-URI copy "sip:([^@]*@)" u02
 response 200 peer-header sip contact copy ">(;.*)" u03
 request CANCEL peer-header sip SIP-Req-URI copy "sip:([^@]*@)" u04
 request INVITE sip-header Cisco-Guid remove
 request INVITE sip-header Contact modify "(.*)" "\1\u01"
 request INVITE sip-header SIP-Req-URI modify ".*" "INVITE sip:\u0210.50.209.215 SIP/2.0"
 response 200 sip-header Contact modify "(.*)" "\1\u03"
 request CANCEL sip-header SIP-Req-URI modify ".*" "CANCEL sip:\u0410.50.209.215 SIP/2.0"
!
voice class sip-profiles 10
 request INVITE peer-header sip contact copy ">(;.*)" u01
 request REGISTER peer-header sip contact copy ">(;.*)" u02
 request INVITE sip-header Cisco-Guid remove
 request INVITE sip-header Contact modify "(.*)" "\1\u01"
 request REGISTER sip-header Contact modify "(.*)" "\1\u02"
!
!
voice class sip-hdr-passthrulist 10
 passthru-hdr Remote-Pary-ID
 passthru-hdr Call-Info
 passthru-hdr Content-ID
 passthru-hdr Allow-Events
 passthru-hdr supported
 passthru-hdr require
 passthru-hdr Referred-By
!
voice class sip-copylist 10
 sip-header SIP-Req-URI
 sip-header contact
!
voice class sip-copylist 11
 sip-header contact
!
!
interface GigabitEthernet0/0
 ip address 10.50.209.100 255.255.255.0
 duplex auto
 speed auto
```

```
!
interface GigabitEthernet0/1
 ip address 172.18.110.120 255.255.255.0
 duplex auto
 speed auto


dspfarm profile 1 transcode universal security
 codec g722-64
 codec g711ulaw
 codec g711alaw
 codec g729ar8
 codec g729abr8
 maximum sessions 24
 associate application CUBE

voice-ctl-file ctl_secure
 record-entry cucm-tftp trustpoint ccm1
 record-entry capf trustpoint Cisco_Manufacturing_CA
 record-entry selfsigned trustpoint selfsignx
 complete
voice-phone-proxy phone_proxy
 tftp-server address ipv4 10.50.209.215 local-addr ipv4 10.50.209.100 acc-addr ipv4
172.18.110.120
 ctl-file ctl_secure
 access-secure
 service-map server-addr ipv4 10.50.209.215 port 8443 acc-addr ipv4 172.18.110.120 port 8443
 service-map server-addr ipv4 10.50.209.215 port 8080 acc-addr ipv4 172.18.110.120 port 8080
 service-map server-addr ipv4 10.50.209.215 port 3804 acc-addr ipv4 172.18.110.120 port 3804
 complete
voice-phone-proxy tftp-address ipv4 10.50.209.100
 port-range 40000 50000
voice-phone-proxy tftp-address ipv4 172.18.110.120
 port-range 40000 50000
voice-phone-proxy file-buffer size 60
!
dial-peer voice 1 voip
 phone-proxy phone_proxy signal-addr ipv4 172.18.110.120 cucm ipv4 10.50.209.215
 description *** Dialpeer Facing Outside ***
 session protocol sipv2
 session target registrar
 session transport tcp tls
 destination uri 2
 incoming uri request 1
 voice-class sip call-route url
 voice-class sip profiles 10
 voice-class sip registration passthrough registrar-index 1
 voice-class sip pass-thru headers 10
 voice-class sip copy-list 10
 dtmf-relay rtp-nte
 srtp
 codec transparent
!
dial-peer voice 2 voip
 description *** Dialpeer Facing CUCM ***
 session protocol sipv2
 session target ipv4:10.50.209.215
 session transport tcp
 destination uri 1
 incoming uri via 3
 voice-class sip call-route url
 voice-class sip profiles 11
 voice-class sip pass-thru headers 10
 voice-class sip copy-list 11
```

```
 dtmf-relay rtp-nte
 codec transparent
!
!
sip-ua
 timers connection aging 60
 registrar 1 ipv4:10.50.209.215 expires 3600 refresh-ratio 100 tcp
 crypto signaling default trustpoint selfsignx
```

Configurar a versão do Cisco IOS 15.4

> **Note**: A configuração é diferente segundo a versão do Cisco IOS que é executado no CUBO. Em IO 15.3, os sorvo-perfis têm que ser configurados e na Versão do IOS 15.4, o comando do **cucm da extensão** tem que ser entrado. Este comando constrói automaticamente os sorvo-perfis para o CUBO sem tê-los na configuração running.

1. Crie o arquivo CTL.

```
voice-ctl-file ctl_secure
 record-entry capf trustpoint Cisco_Manufacturing_CA
 record-entry selfsigned trustpoint selfsignx
 record-entry cucm-tftp trustpoint ccm1
 complete
```

2. Adicionar configuração da manipulação do serviço, do fluxo de chamadas e da mensagem do cubo.

```
voice service voip
 no ip address trusted authenticate
 allow-connections sip to sip
 fax protocol t38 version 0 ls-redundancy 0 hs-redundancy 0 fallback none
 sip
  session transport tcp
  header-passing
  registrar server
  nat auto
  pass-thru headers unsupp
  pass-thru subscribe-notify-events all
  pass-thru content unsupp
  registration passthrough
  extension cucm
!
!
voice class uri 1 sip
 host ipv4:[ACCESS-CUBE-IP-ADDR]
!
voice class uri 2 sip
 host ipv4:[CORE-CUBE-IP-ADDR]
!
voice class uri 3 sip
 host ipv4:[CUCM-IP-ADDR] !

dspfarm profile 1 transcode universal security
 codec g722-64
 codec g711ulaw
 codec g711alaw
 codec g729ar8
 codec g729abr8
```

```
 maximum sessions 24
 associate application CUBE

 sip-ua
 timers connection aging 60
 registrar 1 ipv4:[CUCM-IP-ADDR] expires 3600 refresh-ratio 100 tcp
 crypto signaling default trustpoint selfsignx
```

3. Crie o proxy do telefone.

```
voice-phone-proxy phone_proxy
 tftp-server address ipv4 [CUCM-IP-ADDR] local-addr ipv4 [CORE-CUBE-IP-ADDR] acc-addr ipv4
[ACCESS-CUBE-IP-ADDR]
 ctl-file ctl_secure
 access-secure
 service-map server-addr ipv4 [CUCM-IP-ADDR] port 8443 acc-addr ipv4 [ACCESS-CUBE-IP-ADDR] port
8443
 service-map server-addr ipv4 [CUCM-IP-ADDR] port 8080 acc-addr ipv4 [ACCESS-CUBE-IP-ADDR] port
8080
 service-map server-addr ipv4 [CUCM-IP-ADDR] port 3804 acc-addr ipv4 [ACCESS-CUBE-IP-ADDR] port
3804
 complete
voice-phone-proxy tftp-address ipv4 [CORE-CUBE-IP-ADDR]
 port-range 40000 50000
voice-phone-proxy tftp-address ipv4 [ACCESS-CUBE-IP-ADDR]
 port-range 40000 50000
voice-phone-proxy file-buffer size 60
```

4. Crie os dialpeers do acesso e do núcleo.

```
dial-peer voice 1 voip
 phone-proxy phone_proxy signal-addr ipv4 [ACCESS-CUBE-IP-ADDR] cucm ipv4 [CUCM-IP-ADDR]
 description *** Access Dialpeer Facing Outside ***
 session protocol sipv2
 session target registrar
 session transport tcp tls
 destination uri 2
 incoming uri request 1
 voice-class sip extension cucm
 voice-class sip conn-reuse
 voice-class sip call-route url
 voice-class sip registration passthrough registrar-index 1
 dtmf-relay rtp-nte
 srtp
 codec transparent
!
dial-peer voice 2 voip
 description *** Core Dialpeer Facing CUCM ***
 session protocol sipv2
 session target ipv4:[CUCM-IP-ADDR]
 session transport tcp
 destination uri 1
 incoming uri via 3
 voice-class sip call-route url
 dtmf-relay rtp-nte
 codec transparent
```

Termine a configuração em funcionamento para a versão do Cisco IOS 15.4

```
crypto pki trustpoint ccm1
 enrollment terminal
 revocation-check none
!
crypto pki trustpoint Cisco_Manufacturing_CA
 enrollment terminal
 revocation-check none
!
!
crypto pki trustpoint selfsignx
 enrollment selfsigned
 subject-name cn=3925_pod5
 revocation-check none
 rsakeypair selfsignx


crypto pki certificate chain ccm1
 certificate ca 55C2FCBFBAC552B7C6CED497D4AD33F8
 [Certificate data omitted]

crypto pki certificate chain Cisco_Manufacturing_CA
 certificate ca 6A6967B3000000000003
 [Certificate data omitted]

crypto pki certificate chain selfsignx
 certificate self-signed 01
 [Certificate data omitted]

!
voice service voip
 no ip address trusted authenticate
 allow-connections sip to sip
 fax protocol t38 version 0 ls-redundancy 0 hs-redundancy 0 fallback none
 sip
 session transport tcp
 header-passing
 registrar server
 nat auto
 pass-thru headers unsupp
 pass-thru subscribe-notify-events all
 pass-thru content unsupp
 registration passthrough
 extension cucm
!
!
voice class uri 1 sip
 host ipv4:172.18.110.120
!
voice class uri 2 sip
 host ipv4:10.50.209.100
!
voice class uri 3 sip
 host ipv4:10.50.209.215
!
!

interface GigabitEthernet0/0
 ip address 10.50.209.100 255.255.255.0
 duplex auto
 speed auto
!
interface GigabitEthernet0/1
 ip address 172.18.110.120 255.255.255.0
 duplex auto
```

```
 speed auto
!
!
!
dspfarm profile 1 transcode universal security
 codec g722-64
 codec g711ulaw
 codec g711alaw
 codec g729ar8
 codec g729abr8
 maximum sessions 24
 associate application CUBE


voice-ctl-file ctl_secure
 record-entry capf trustpoint Cisco_Manufacturing_CA
 record-entry selfsigned trustpoint selfsignx
 record-entry cucm-tftp trustpoint ccm1
 complete

voice-phone-proxy phone_proxy
 tftp-server address ipv4 10.50.209.215 local-addr ipv4 10.50.209.100 acc-addr ipv4
172.18.110.120
 ctl-file ctl_secure
 access-secure
 service-map server-addr ipv4 10.50.209.215 port 8443 acc-addr ipv4 172.18.110.120 port 8443
 service-map server-addr ipv4 10.50.209.215 port 8080 acc-addr ipv4 172.18.110.120 port 8080
 service-map server-addr ipv4 10.50.209.215 port 3804 acc-addr ipv4 172.18.110.120 port 3804
 complete

voice-phone-proxy tftp-address ipv4 10.50.209.100
 port-range 40000 50000
voice-phone-proxy tftp-address ipv4 172.18.110.120
 port-range 40000 50000
voice-phone-proxy file-buffer size 60
!
dial-peer voice 1 voip
 phone-proxy phone_proxy signal-addr ipv4 172.18.110.120 cucm ipv4 10.50.209.215
 description *** Access Dialpeer Facing Outside ***
 session protocol sipv2
 session target registrar
 session transport tcp tls
 destination uri 2
 incoming uri request 1
 voice-class sip extension cucm
 voice-class sip conn-reuse
 voice-class sip call-route url
 voice-class sip registration passthrough registrar-index 1
 dtmf-relay rtp-nte
 srtp
 codec transparent
!
dial-peer voice 2 voip
 description *** Core Dialpeer Facing CUCM ***
 session protocol sipv2
 session target ipv4:10.50.209.215
 session transport tcp
 destination uri 1
 incoming uri via 3
 voice-class sip call-route url
 dtmf-relay rtp-nte
 codec transparent
!
!
```

```
sip-ua
 timers connection aging 60
 registrar 1 ipv4:10.50.209.215 expires 3600 refresh-ratio 100 tcp
 crypto signaling default trustpoint selfsignx !
```

Troubleshooting

Debugs exigiu:

Proxy do telefone

debugar o detalhe do telefone-proxy da Voz
debugar o telefone-proxy todo da Voz

SORVO

debugar o mensagem de ccsip

Cripto e SSL debuga para edições do certificado

> **Caution**: Não permita o TCP debuga quando o roteador tem muito tráfego que atravessa ele.

debugar o pacote IP tcp
debugar transações IP tcp

debugar erros do OpenSSL SSL
debugar msg do OpenSSL SSL
debugar o ext> do OpenSSL SSL
debugar estados do OpenSSL SSL

pki api do debug crypto
rechamadas do pki do debug crypto
debug crypto pki messages
scep do pki do debug crypto
server do pki do debug crypto
debug crypto pki transactions
validação do pki do debug crypto

Comandos show

mostre o estado da transmissão do registro do sorvo

```
Example of a working show passthrough command.
3925_pod5#show sip registration passthrough status
CallId       DirectoryNum peer         mode In-Exp        reg-I Out-Exp survival
============ ============ ============ ==== ============= ===== ======= ========
9            5554420      1            p2p  98    /120    1     120     normal
26           5554418      1            p2p  45    /120    1     120     normal
================================================================================
```

Notas do Troubleshooting adicional

Alterando o arquivo CTL

A fim fazer mudanças aos arquivos CTL, unlink primeiramente a característica do proxy do telefone.

```
dial-peer voice 1 voip
no phone-proxy phone_proxy signal-addr ipv4 172.18.110.120 cucm ipv4 10.50.209.215

voice-phone-proxy phone_proxy
no complete
no ctl-file ctl_file

voice-ctl-file ctl_file
no complete
```

> **Note**: Sempre que o arquivo CTL é alterado, os arquivos CTL instalados previamente a todos os telefones devem ser suprimidos.

Endereço IP de Um ou Mais Servidores Cisco ICM NT 0.0.0.0

Épossível que o proxy do telefone debuga a mostra que a reescrita de endereço está adicionando 0.0.0.0. Se isto acontece, verifique o conjunto CUCM para certificar-se de que está usando endereços IP de Um ou Mais Servidores Cisco ICM NT em vez dos nomes de host.

snippet detrabalho:

```
001952: Jul  9 14:22:05.571: PP: Complete configuration file received from Call Manager TFTP
server, beginning config file modification process.
001953: Jul  9 14:22:05.571: PP: Config Modify: rewriting addr to 10.50.209.215
001954: Jul  9 14:22:05.571: PP: Config Modify: rewriting addr to 0.0.0.0
001955: Jul  9 14:22:05.571: PP: CM Name Config Modify : detected Call Manager Name.
001956: Jul  9 14:22:05.571: PP: Config Modify: rewriting addr to 10.50.209.215
001957: Jul  9 14:22:05.571: PP: Config Modify: rewriting addr to 0.0.0.0 !--- incorrect here
001958: Jul  9 14:22:05.571: PP: CM Name Config Modify : detected Call Manager Name.
001959: Jul  9 14:22:05.571: PP: Config Modify: rewriting port 5060 to 5060
001960: Jul  9 14:22:05.571: PP: Config Modify: rewriting port 5061 to 5061
001961: Jul  9 14:22:05.571: PP: Config Modify: rewriting addr to 10.50.209.215
001962: Jul  9 14:22:05.571: PP: Config Modify: rewriting addr to 0.0.0.0 !--- incorrect here
```

Snippet de trabalho:

```
000144: *Jul 22 20:41:07.015: PP: Complete configuration file received from Call Manager TFTP
server, beginning config file modification process.
000145: *Jul 22 20:41:07.015: PP: Config Modify: rewriting addr to 10.50.209.215
000146: *Jul 22 20:41:07.015: PP: Config Modify: rewriting addr to 0.0.0.0
000147: *Jul 22 20:41:07.015: PP: CM Name Config Modify : detected Call Manager Name.
000148: *Jul 22 20:41:07.015: PP: Config Modify: rewriting addr to 10.50.209.215
000149: *Jul 22 20:41:07.015: PP: Config Modify: rewriting addr to 172.18.110.120
000150: *Jul 22 20:41:07.015: PP: CM Name Config Modify : detected Call Manager Name.
000151: *Jul 22 20:41:07.015: PP: Config Modify: rewriting port 5060 to 5060
000152: *Jul 22 20:41:07.015: PP: Config Modify: rewriting port 5061 to 5061
```

```
000153: *Jul 22 20:41:07.015: PP: Config Modify: rewriting addr to 10.50.209.215
000154: *Jul 22 20:41:07.015: PP: Config Modify: rewriting addr to 172.18.110.120
000155: *Jul 22 20:41:07.015: PP: CM Config Modify : detected Call Manager Node Name.
000156: *Jul 22 20:41:07.015: PP: Config Modify : deviceSecurityMode set to 1 (unencrypted),
modifying deviceSecurityMode to 3 (encrypted).
```

CUCM joga o erro 405

Ao debugar registros do SORVO, CUCM pode rejeitar o registro do telefone com o seguinte erro:

```
006050: *Jul 18 17:00:34.819: //128/000000000000/SIP/Msg/ccsipDisplayMsg:
Received:
SIP/2.0 405 Method Not Allowed
Via: SIP/2.0/TCP 10.50.209.100:5060;branch=z9hG4bK3C1DDE
From: <sip:5554414@10.50.209.215>;tag=3BB270-125
To: <sip:5554414@10.50.209.215>;tag=279884435
Date: Fri, 18 Jul 2014 17:02:01 GMT
Call-ID: DE60F64D-DD311E4-809886CE-D6EFE1FB
Server: Cisco-CUCM9.1
CSeq: 2 REGISTER
Warning: 399 cucm9 "SIP trunk disallows REGISTER" !--- See this warning here
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Content-Length: 0
```

A edição é que os registros estão tentando usar um endereço IP de Um ou Mais Servidores Cisco ICM NT que CUCM atribua a um tronco do SORVO. Para resolver a edição suprima do tronco do SORVO em CUCM ou mude o endereço IP de Um ou Mais Servidores Cisco ICM NT usado no roteamento de chamada do CUBO para esse tronco do SORVO em CUCM.