Configure y resuelva problemas la grabación de las llamadas básico

Contenido

Introducción

Este documento describe los fundamentos de la grabación de la llamada dentro del encargado de las Comunicaciones unificadas de Cisco (CUCM), los media previstos fluye, los flujos de la llamada esperada para los dispositivos del Session Initiation Protocol (SIP) y del protocolo skinny client control (SCCP), y un ejemplo de un tipo común de error de la disposición de la grabación de la llamada.

Prerequisites

Requisitos

Cisco recomienda que usted tiene conocimiento de CUCM integrado con un servidor de tercera persona de la grabación.

Componentes usados

La información que contiene este documento se basa en las siguientes versiones de software y hardware.

- CUCM
- Internet Protocol (IP) de Cisco
- Servidor de la grabación de las llamadas telefónicas

La información que contiene este documento se creó a partir de los dispositivos en un ambiente de laboratorio específico. Todos los dispositivos que se utilizan en este documento se pusieron en funcionamiento con una configuración verificada (predeterminada). Si su red está viva, asegúrese de que usted entienda el impacto potencial del comando any.

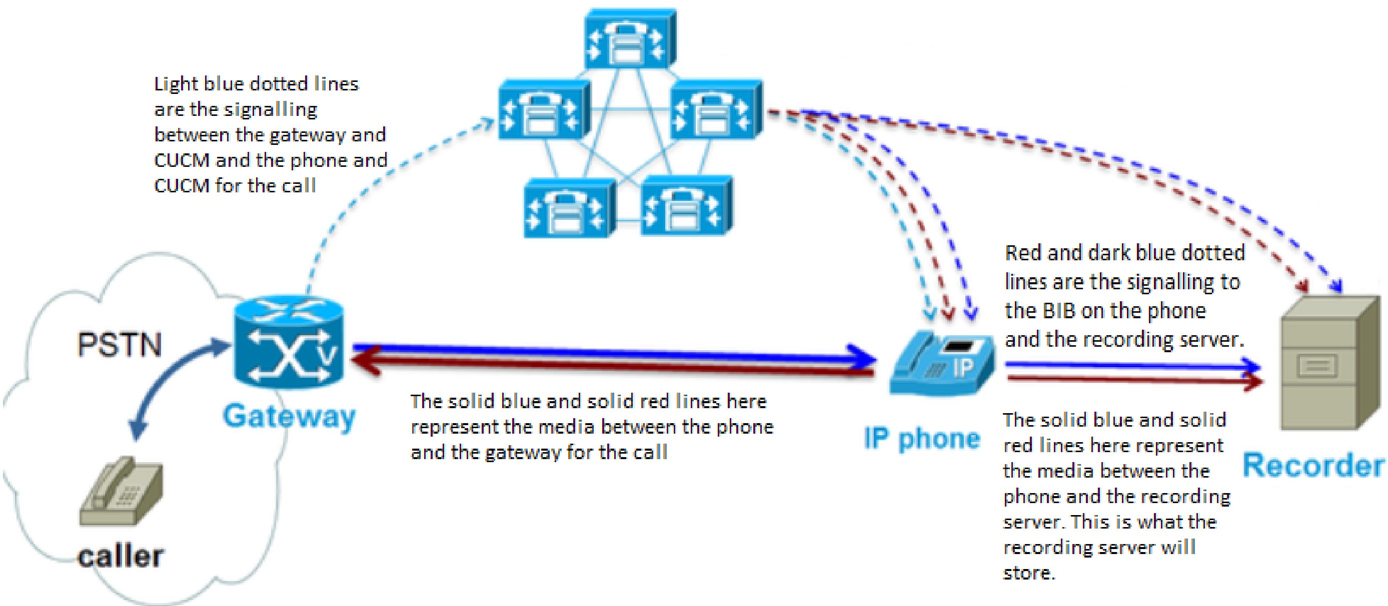
Tipos de grabación de la llamada

Automático

Los elementos fundamentales de la grabación de la llamada automática son como sigue:

- Construir-En-puente de las aplicaciones (BABERO) del teléfono IP para bifurcar audio al destino de la grabación
- Iniciado cada vez que el teléfono IP pone una llamada o recibe una llamada
- Requiere solamente un tronco del SORBO entre CUCM y el destino de la grabación. Algunos vendedores de la grabación requieren el Integración de telefonía de computadora (CTI)
- No permite la registración de los teléfonos que están situados fuera de la red administrada (debe tener acceso para enviar el RTP directamente al servidor la registración y a ser un teléfono IP de Cisco capaz de afectar un aparato un BABERO)

En este diagrama, las líneas llenas representan los media previstos fluyen y las líneas discontinuas representan el flujo de señalización previsto:

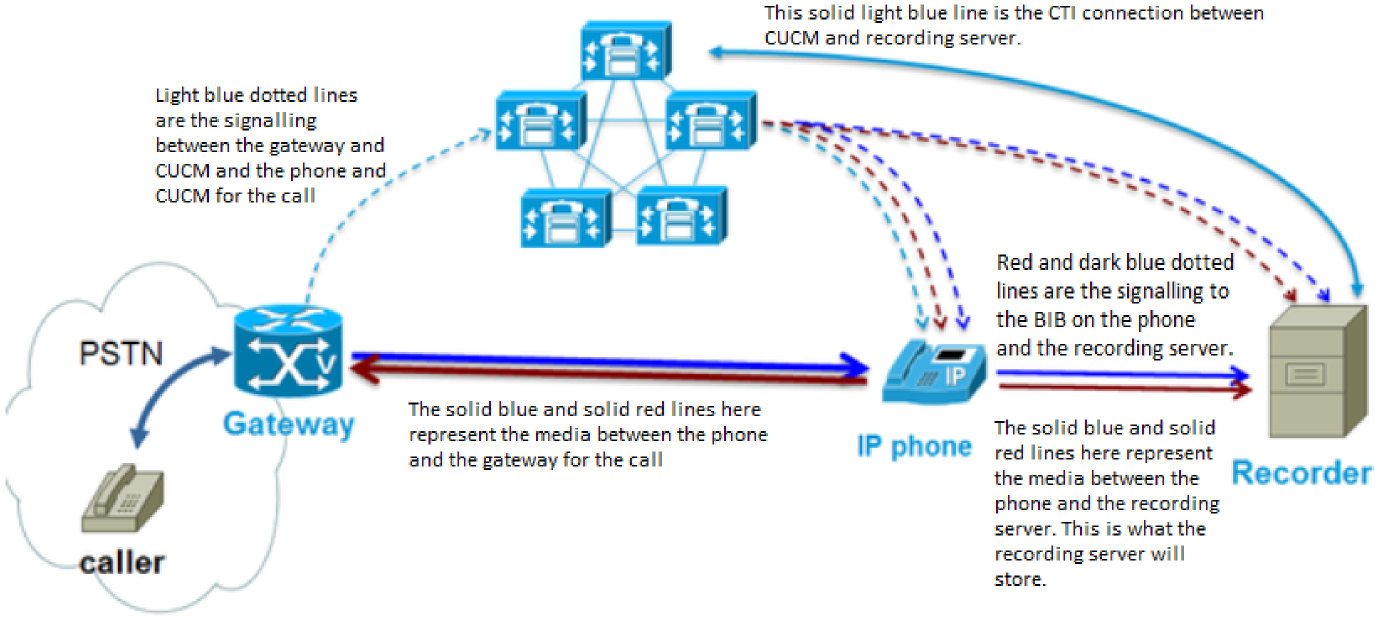


Aplicación invocada

Los elementos fundamentales de la grabación invocada aplicación de la llamada son como sigue:

- Utiliza el BABERO del teléfono IP para bifurcar audio al destino de la grabación
- Iniciado cuando la aplicación (registrador) dicta que debe ser iniciada
- Requiere el tronco del SORBO y CTI con la aplicación de la grabación
- El usuario de la aplicación CTI debe tener acceso a las puntos finales que necesitan ser registradas
- No permite la registración de los teléfonos que están situados fuera de la red administrada (debe tener acceso para enviar el RTP directamente al servidor la registración)

En el diagrama aquí, las líneas llenas representan los media previstos fluyen y las líneas discontinuas representan el flujo de señalización previsto. La línea llena entre CUCM y el servidor de la grabación denota una conexión CTI entre CUCM y la aplicación.

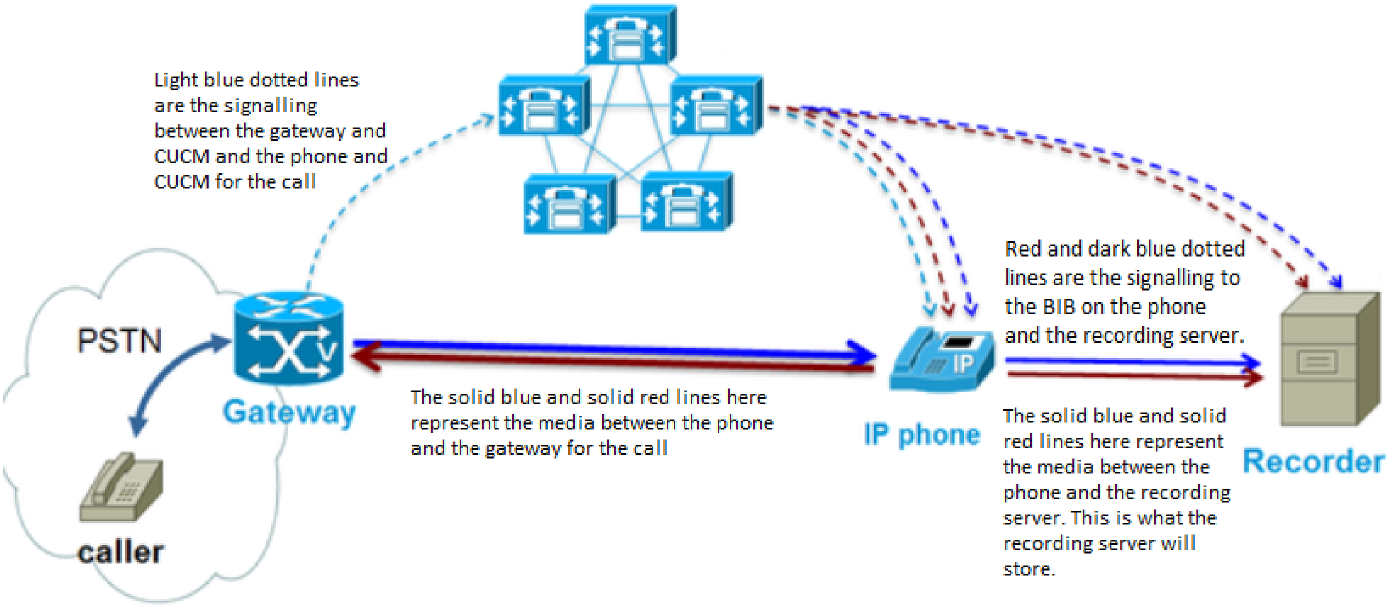


Selectivo

Los elementos fundamentales de la grabación selectiva de la llamada son como sigue:

- Utiliza el BABERO del teléfono IP para bifurcar audio al destino de la grabación
- Iniciado cada vez que usuario de teléfono IP selecciona la opción de la grabación en su teléfono IP (CUCM 9.x+) o en una aplicación como en esta imagen
- Requiere típicamente solamente un tronco del SORBO entre CUCM y el destino de la grabación (que depende del vendedor de la aplicación de la grabación)
- Prohibe a registración de los teléfonos esa mentira fuera de la red administrada (debe tener acceso para enviar el RTP directamente al servidor la registración)

Como usted puede ver en este diagrama aquí, el media y el recorrido de la señal es muy similares a la grabación de la llamada automática:

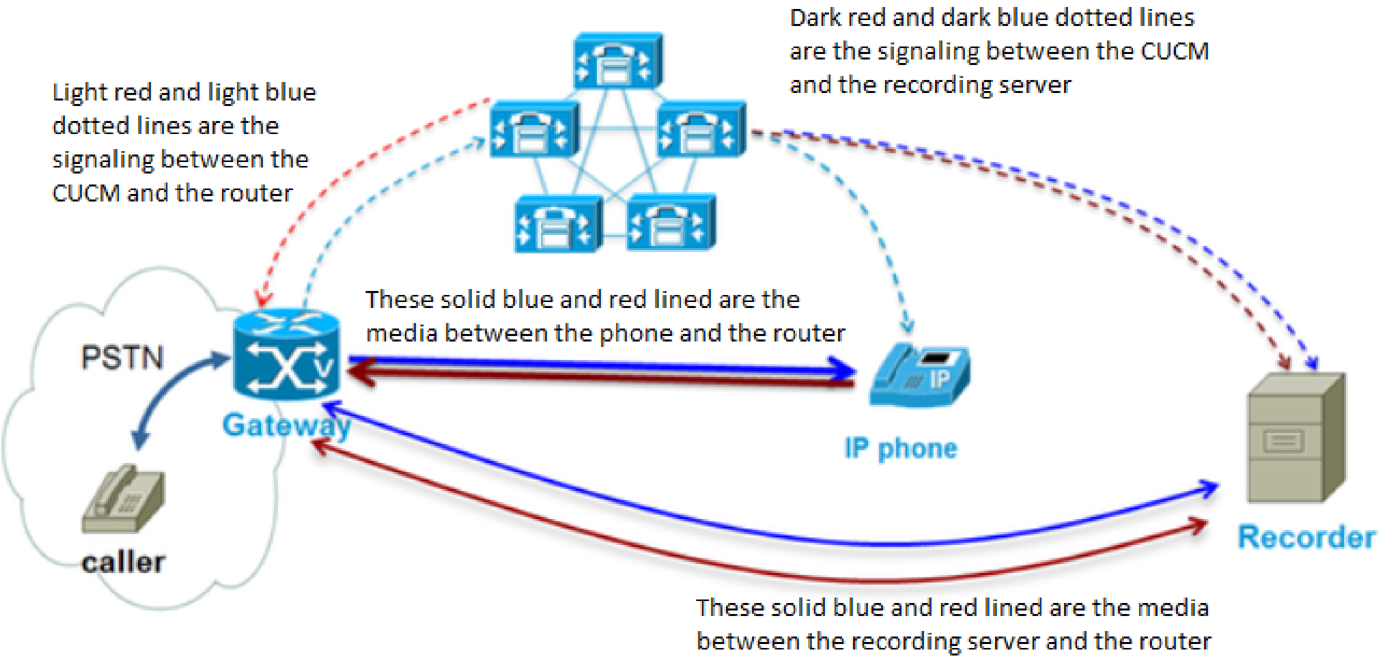


Gateway-basado

Los elementos fundamentales de la grabación gateway-basada de la llamada son como sigue:

- Exprese el gateway bifurca los media hacia el destino de la grabación
- Registros CUCM con el gateway como aplicación
- CUCM utiliza el HTTP para dar instrucciones el gateway (GW) para fluir los media al destino de registración
- CUCM integra con el destino de la grabación vía el tronco del SORBO
- No prohibe a registración de las llamadas eso simplemente paso a través de la red administrada (por ejemplo, a los usuarios ambulantes) o para los teléfonos que no utilizan el BABERO

Como usted puede ver del diagrama aquí, los media fluyen son muy diferentes de los otros tipos de grabación de la llamada:

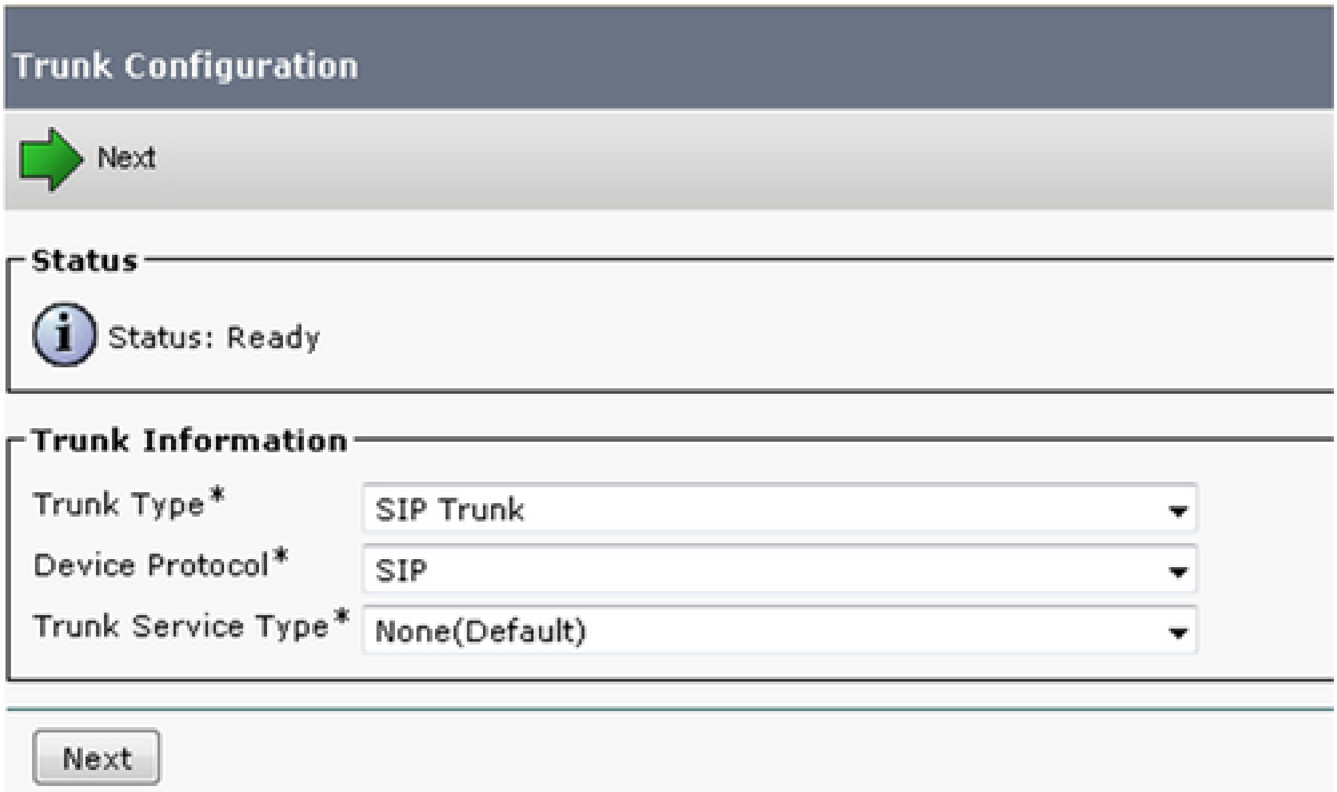


Configuración de la grabación de la llamada automática para la integración del SORBO solamente

Esta sección describe cómo poner la integración del SORBO de un servidor de la grabación.

Cree el tronco del SORBO al destino de registración

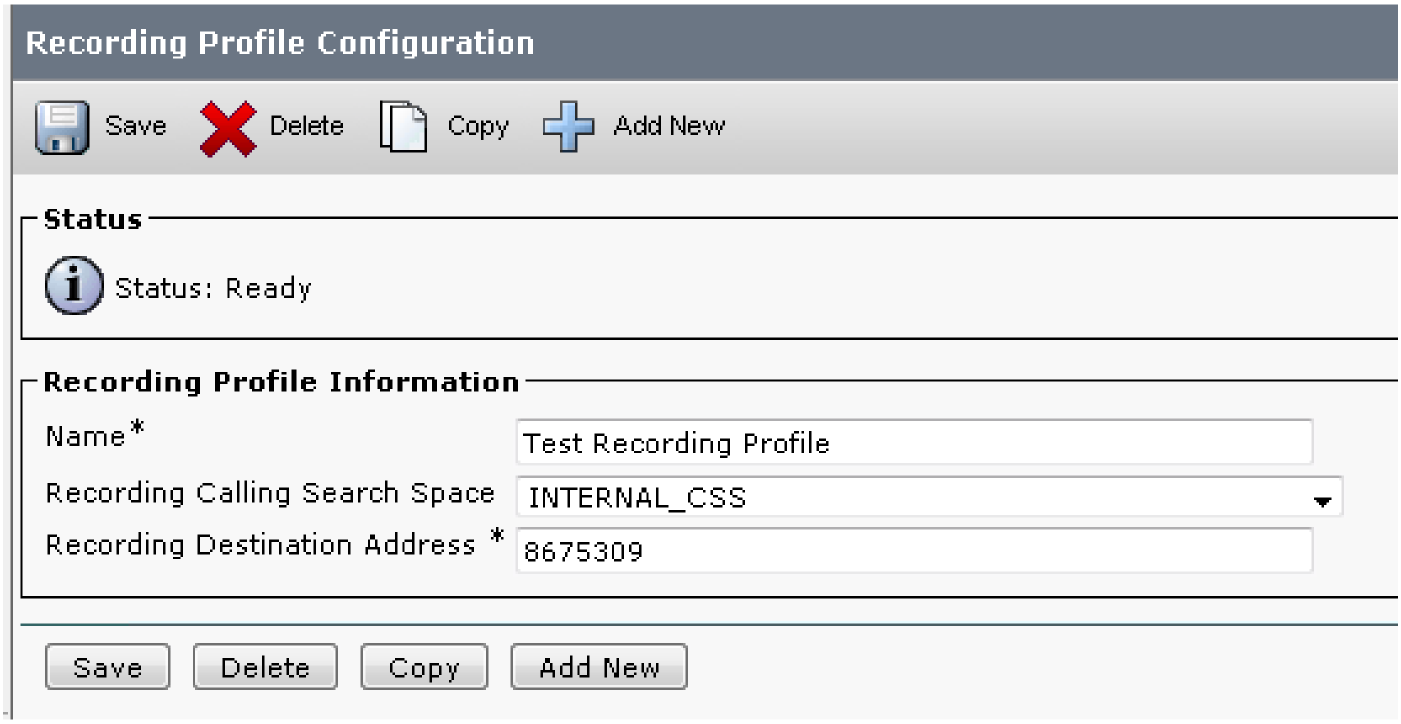
- Navegue al **dispositivo > al tronco**, selectos **agregan nuevo**.
- Cree un tronco del SORBO con las configuraciones tal y como se muestra en de la imagen.



- Entre el Nombre del dispositivo, la agrupación de dispositivos, el perfil de seguridad del tronco MRGL, del SORBO, y el perfil apropiados del SORBO
- El direccionamiento de destino configurado es el direccionamiento del servidor de aplicaciones de la grabación. En el ejemplo aquí, el servidor de la grabación es **14.48.32.170** tal y como se muestra en de la imagen.

Cree el perfil de la grabación

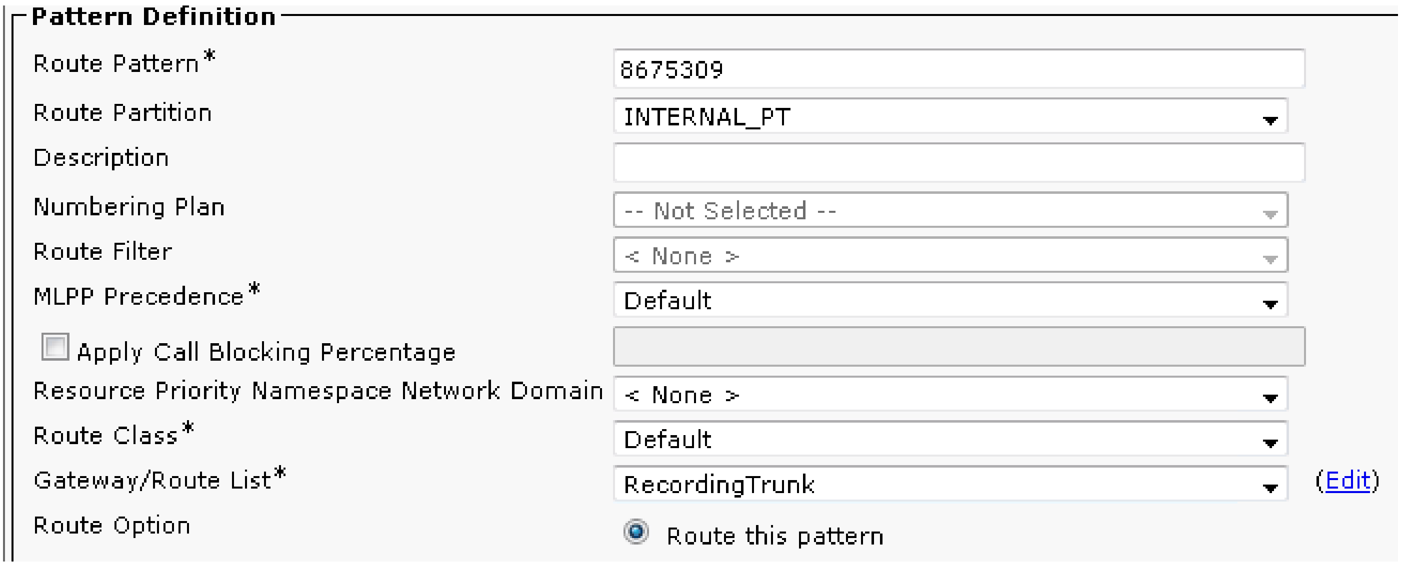
- Navegue al **dispositivo > a las configuraciones del dispositivo > al perfil de la grabación**
- El direccionamiento de destino de registración es adonde las llamadas de la grabación se envían tal y como se muestra en de la imagen.



Cree el modelo de la ruta para encaminar las llamadas de la grabación

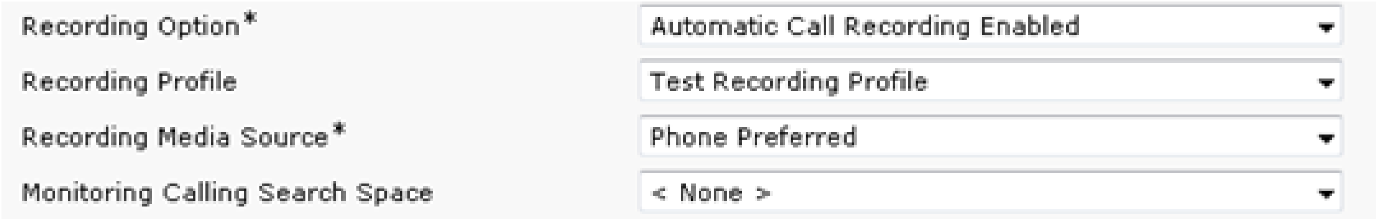
- Cree un modelo de la ruta que haga juego el direccionamiento de destino de la grabación configurado en el Paso previó
- Usted puede señalar a una lista de la ruta en vez de directamente en el tronco del SORBO, si usted desea configurar los troncos redundantes del SORBO

Note: La división asignada a este modelo de la ruta se debe asociar a la **grabación que llama el espacio de búsqueda** y tal y como se muestra en de la imagen.



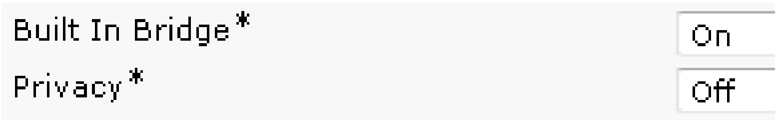
Asigne el perfil de la grabación a la línea telefónica

- En un teléfono ya creado con una extensión existente, asigne el perfil de la grabación creado
- Asigne el tipo de grabación de la llamada en esta ubicación también
- El ejemplo muestra la grabación automática, tal y como se muestra en de la imagen.



Fije el BABERO a encendido y la aislamiento a apagado en la página de la Configuración del teléfono

Mientras que en la página de la configuración del dispositivo, navegue a la sección titulada **información del dispositivo**. Fije construido en el puente a **encendido** y la aislamiento a **apagado** tal y como se muestra en de la imagen.



Verifique

Utilize esta sección para confirmar que su configuración funcione correctamente.

Aquí están las conductas esperadas en los rastros del encargado de llamada para SCCP y SORBEN los teléfonos con la configuración dada. Estos ejemplos son para una llamada de teléfono otro teléfono en el mismo racimo mientras que uno de los teléfonos se pone para la grabación de la llamada.

SCCP

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Normal CCM Traces for SCCP phone to SCCP phone with SIP Integrated Call Recording
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### Calling phone places call

03796977.001 |20:21:08.055 |AppInfo  |StationInit: (0000109) SoftKeyEvent softKeyEvent=1(Redial)
lineInstance=0 callReference=0.

### CUCM performs digit analysis against the dialed digits (dd="9110001")

03797017.001 |20:21:08.057 |AppInfo  |Digit Analysis: star_DaReq: daReq.partitionSearchSpace(),
filteredPartitionSearchSpaceString(), partitionSearchSpaceString()
03797017.002 |20:21:08.057 |AppInfo  |Digit Analysis: star_DaReq: Matching Legacy Numeric,
digits=9110001
03797017.003 |20:21:08.057 |AppInfo  |Digit Analysis: getDaRes data&colon; daRes.ssType=[0]
Intercept DAMR.sstype=[0], TPcount=[0], DAMR.NotifyCount=[0], DaRes.NotifyCount=[0]
03797017.004 |20:21:08.057 |AppInfo  |Digit Analysis: getDaRes - Remote Destination [] isURI[1]
03797017.005 |20:21:08.057 |AppInfo  |Digit analysis: patternUsage=2
03797017.006 |20:21:08.057 |AppInfo  |Digit analysis: match(pi="2", fqcn="9110006",
cn="9110006",plv="5", pss="", TodFilteredPss="", dd="9110001",dac="0")
03797017.007 |20:21:08.057 |AppInfo  |Digit analysis: analysis results
03797017.008 |20:21:08.057 |AppInfo  ||PretransformCallingPartyNumber=9110006
|CallingPartyNumber=9110006
```

```
|DialingPartition=
|DialingPattern=9110001
|FullyQualifiedCalledPartyNumber=9110001
|DialingPatternRegularExpression=(9110001)
|DialingWhere=
|PatternType=Enterprise
|PotentialMatches=NoPotentialMatchesExist
|DialingSdlProcessId=(0,0,0)
|PretransformDigitString=9110001
|PretransformTagsList=SUBSCRIBER
|PretransformPositionalMatchList=9110001
|CollectedDigits=9110001

### CUCM determines call must stay on same node; go to LineControl
(PID=LineControl(2,100,174,137))

03797019.001 |20:21:08.058 |AppInfo  |Digit analysis: wait_DmPidRes- Partition=[]
Pattern=[9110001] Where=[],cmDeviceType=[UserDevice], OutsideDialtone =[0], DeviceOverride=[0],
PID=LineControl(2,100,174,137),CI=[38960749],Sender=Cdcc(2,100,219,29)

### CUCM extends call to phone

03797036.003 |20:21:08.058 |AppInfo  |StationD:    (0000114) DEBUG whatToDo: line=1 calls=0
limit=4, busy=2. GCI=(2, 5033), cm_PL=(5, 0).
03797036.004 |20:21:08.058 |AppInfo  |StationD:    (0000114) DEBUG  whatToDo: busy trigger not
hit... send to open appearance
03797036.005 |20:21:08.058 |AppInfo  |preFilterCapCount =[11], preFilterCaps :: (Cap)= (25) (6)
(4) (2) (7) (8) (15) (16) (11) (12) (257) Filtering Caps due to Service Parameter Configuration
postFilterCapCount =[8], postFilterCaps :: (Cap)= (25) (4) (2) (15) (16) (11) (12) (257)
03797036.006 |20:21:08.058 |AppInfo  |preFilterCapCount =[0], preFilterCaps :: (Cap)= Filtering
Caps due to Service Parameter Configuration postFilterCapCount =[0], postFilterCaps :: (Cap)=
03797036.007 |20:21:08.058 |Created  |                                        |
|StationCdpc(2,100,64,22)         |StationD(2,100,63,114)           |
|NumOfCurrentInstances: 2
03797036.008 |20:21:08.058 |AppInfo  |StationD:    (0000114) DEBUG- getLineRingSetting:
retVal=4.
03797036.009 |20:21:08.058 |AppInfo  |StationD:    (0000114) DEBUG- saveRinger for: ci=38960750,
line=1, mode=2, cm_precedence=5, callPhase=5.
03797036.010 |20:21:08.058 |AppInfo  |StationD:    (0000114) DEBUG- saveRinger: ci=38960750,
line=1, mode=2, cm_precedence=5, callPhase=5, modifier=0
03797036.011 |20:21:08.058 |AppInfo  |StationD:    (0000114) INFO  sendCallAcceptReq: Try to
send StationLineCallAccept to cdpc=22 .
03797036.012 |20:21:08.058 |AppInfo  |StationD:    (0000114) playRinger for: ci=38960750.
03797036.013 |20:21:08.058 |AppInfo  |StationD:    (0000114) DEBUG- getLineRingSetting:
retVal=4.
03797036.014 |20:21:08.058 |AppInfo  |StationD:    (0000114) DEBUG- getLineRingSetting:
retVal=4.
03797036.015 |20:21:08.058 |AppInfo  |StationD:    (0000114) DEBUG- getLineRingSetting:
retVal=4.

### Called (recorded) phone goes off hook

03797089.001 |20:21:09.335 |AppInfo  |StationD:    (0000114) restart0_StationOffHook - INFO:
CI=38960750 on line=1, SPKMode=0, alwaysPrimeLine=0, alwaysUsePrimeLineForVM=0, fid=0,
offHookTrigger=0.

### CUCM Tells the calling phone to open the logical channel

03797153.001 |20:21:09.337 |AppInfo  |StationD:    (0000109) SEP0018195AA209 ,
star_MediaExchangeAgenaOpenLogicalChannel packetSize=20, codec=4, ci=38960749

### CUCM Tells the called (recorded party) phone to open the logical channel
```

03797156.001 |20:21:09.337 |AppInfo |StationD: (0000114) SEP001795BDD16B ,
star_MediaExchangeAgenaOpenLogicalChannel packetSize=20, codec=4, ci=38960750

CUCM Tells the calling phone to open the receive channel

03797164.002 |20:21:09.337 |AppInfo |StationD: (0000109) OpenReceiveChannel
conferenceID=38960749 passThruPartyID=33554450 millisecondPacketSize=20
compressionType=4(Media_Payload_G711Ulaw64k) RFC2833PayloadType=0 qualifierIn=?
sourceIpAddr=IpAddr.type:0 ipAddr:0x0e302021000000000000000000000000(14.48.32.33). myIP:
IpAddr.type:0 ipv4Addr:0x0e30201c(14.48.32.28)

CUCM Tells the called (recorded party) phone to open the receive channel

03797168.002 |20:21:09.337 |AppInfo |StationD: (0000114) OpenReceiveChannel
conferenceID=38960750 passThruPartyID=33554451 millisecondPacketSize=20
compressionType=4(Media_Payload_G711Ulaw64k) RFC2833PayloadType=0 qualifierIn=?
sourceIpAddr=IpAddr.type:0 ipAddr:0x0e30201c000000000000000000000000(14.48.32.28). myIP:
IpAddr.type:0 ipv4Addr:0x0e302021(14.48.32.33)

CUCM allocates BIB on called (recorded) phone

03797210.000 |20:21:09.338 |SdlSig |MrmAllocateUcbResourceReq |waiting
|MediaResourceManager(2,100,138,1) |Cc(2,100,220,1)
|2,100,14,8384.91^14.48.32.33^SEP001795BDD16B |[R:N-H:0,N:1,L:0,V:0,Z:0,D:0] CI=38960751
SsType=33554461 SsKey=9 BridgeType=0 MRGLPkid= NumStream=1 Bib=89cdb152-4ef2-4d60-9e6b-
ab8c77c22618 BibTgCi=38960750 FeatId=159 PL=5 PLDmn=0 DeviceCapability=0 NumVideoCapable=0
requestDeviceType=0 requestDeviceLocale=64 forkingDevicePosition=2 playToneDir=3

BiB places first call to recording destination address (cn is calling party which is the BiB cn="b00223908001" and it is dialing the recordingdestination dd="8675309")

03797269.001 |20:21:09.340 |AppInfo |Digit Analysis: star_DaReq: daReq.partitionSearchSpace(),
filteredPartitionSearchSpaceString(), partitionSearchSpaceString()
03797269.002 |20:21:09.340 |AppInfo |Digit Analysis: star_DaReq: Matching Legacy Numeric,
digits=8675309
03797269.003 |20:21:09.340 |AppInfo |Digit Analysis: getDaRes data: daRes.ssType=[0] Intercept
DAMR.sstype=[0], TPcount=[0], DAMR.NotifyCount=[0], DaRes.NotifyCount=[0]
03797269.004 |20:21:09.340 |AppInfo |Digit Analysis: getDaRes - Remote Destination [8675309]
isURI[0]
03797269.005 |20:21:09.340 |AppInfo |CMUtility routeCallThroughCTIRD: no matching
RemDestDynamic record exists for remdest [8675309]
03797269.006 |20:21:09.340 |AppInfo |DbMobility: getMatchedRemDest starts: cnumber = 8675309
03797269.007 |20:21:09.340 |AppInfo |DbMobility: getMatchedRemDest: full match case
03797269.008 |20:21:09.340 |AppInfo |DbMobility SelectByDestination: no matching RemDestDynamic
record exists for remdest [8675309]
03797269.009 |20:21:09.340 |AppInfo |DbMobility: can't find remdest 8675309 in map
03797269.010 |20:21:09.340 |AppInfo |Digit analysis: patternUsage=5
03797269.011 |20:21:09.340 |AppInfo |Digit analysis: match(pi="1", fqcn="",
cn="b00223908001",plv="5", pss="E911_PT:Phones_PT:EMERGENCY_PT:INTERNAL_PT:INFORMACAST_PT",
TodFilteredPss="E911_PT:Phones_PT:EMERGENCY_PT:INTERNAL_PT:INFORMACAST_PT",
dd="8675309",dac="0")
03797269.012 |20:21:09.340 |AppInfo |Digit analysis: analysis results
03797269.013 |20:21:09.340 |AppInfo ||PretransformCallingPartyNumber=b00223908001
|CallingPartyNumber=b00223908001
|DialingPartition=
|DialingPattern=8675309
|FullyQualifiedCalledPartyNumber=8675309
|DialingPatternRegularExpression=(8675309)
|DialingWhere=
|PatternType=Enterprise
|PotentialMatches=NoPotentialMatchesExist
|DialingSdlProcessId=(0,0,0)
|PretransformDigitString=8675309

```
|PretransformTagsList=SUBSCRIBER
|PretransformPositionalMatchList=8675309
|CollectedDigits=8675309
```

CUCM sends INVITE #1 to configured recording server (14.48.32.170)

```
03797320.001 |20:21:09.343 |AppInfo  |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message
to 14.48.32.170:[5060]:
[212231,NET]
INVITE sip:8675309@14.48.32.170:5060 SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK204d520fedb3
From: <sip:9110001@14.48.32.90;x-nearend;x-refci=38960750;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=38960749;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=73601~713e2333-4032-45f1-b1f5-e33cf471acec-38960754
To: <sip:8675309@14.48.32.170>
Date: Tue, 30 Sep 2014 00:21:09 GMT
Call-ID: abbb8e00-4291f775-204c-5a20300e@14.48.32.90
Supported: timer,resource-priority,replaces
Min-SE:  1800
User-Agent: Cisco-CUCM10.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Call-Info: ;method="NOTIFY;Event=telephone-event;Duration=500"
Cisco-Guid: 2881195520-0000065536-0000000011-1512058894
Session-Expires:  1800
P-Asserted-Identity: <sip:9110001@14.48.32.90>
Remote-Party-ID: <sip:9110001@14.48.32.90>;party=calling;screen=yes;privacy=off
Contact: <sip:9110001@14.48.32.90:5060>;isFocus
Max-Forwards: 70
Content-Length: 0
```

BiB places second call to recording destination address (cn is calling party which is the BiB cn="b00223908001" and it is dialing the recordingdestination dd="8675309")
Note that the BiB number stayed the same (b00223908001) and so did the recordingdestination number

```
03797367.010 |20:21:09.344 |AppInfo  |Digit analysis: patternUsage=5
03797367.011 |20:21:09.344 |AppInfo  |Digit analysis: match(pi="1", fqcn="",
cn="b00223908001",plv="5", pss="E911_PT:Phones_PT:EMERGENCY_PT:INTERNAL_PT:INFORMACAST_PT",
TodFilteredPss="E911_PT:Phones_PT:EMERGENCY_PT:INTERNAL_PT:INFORMACAST_PT",
dd="8675309",dac="0")
03797367.012 |20:21:09.344 |AppInfo  |Digit analysis: analysis results
03797367.013 |20:21:09.344 |AppInfo  ||PretransformCallingPartyNumber=b00223908001
|CallingPartyNumber=b00223908001
|DialingPartition=
|DialingPattern=8675309
|FullyQualifiedCalledPartyNumber=8675309
|DialingPatternRegularExpression=(8675309)
|DialingWhere=
|PatternType=Enterprise
|PotentialMatches=NoPotentialMatchesExist
|DialingSdlProcessId=(0,0,0)
|PretransformDigitString=8675309
|PretransformTagsList=SUBSCRIBER
|PretransformPositionalMatchList=8675309
|CollectedDigits=8675309
```

CUCM receives 200 OK in response to INVITE #1

```
03797390.001 |20:21:09.345 |AppInfo  |//SIP/SIPUdp/wait_SdlDataInd: Incoming SIP UDP message
size 737 from 14.48.32.170:[5060]:
[212232,NET]
SIP/2.0 200 OK
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK204d520fedb3
From: <sip:9110001@14.48.32.90;x-nearend;x-refci=38960750;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=38960749;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=73601~713e2333-4032-45f1-b1f5-e33cf471acec-38960754
To: <sip:8675309@14.48.32.170>;tag=1
Call-ID: abbb8e00-4291f775-204c-5a20300e@14.48.32.90
CSeq: 101 INVITE
Contact: <sip:14.48.32.170:5060;transport=udp>
Content-Type: application/sdp
Content-Length:   135

v=0
o=user1 53655765 2353687637 IN IP4 14.48.32.170
s=-
c=IN IP4 14.48.32.170
t=0 0
m=audio 6000 RTP/AVP 0
a=rtpmap:0 PCMU/8000
```

CUCM sends INVITE #2 to recording server (14.48.32.170)

```
03797445.001 |20:21:09.348 |AppInfo  |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message
to 14.48.32.170:[5060]:
[212233,NET]
INVITE sip:8675309@14.48.32.170:5060 SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK204e754eaeae
From: <sip:9110001@14.48.32.90;x-farend;x-refci=38960750;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=38960749;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=73602~713e2333-4032-45f1-b1f5-e33cf471acec-38960757
To: <sip:8675309@14.48.32.170>
Date: Tue, 30 Sep 2014 00:21:09 GMT
Call-ID: abbb8e00-4291f775-204d-5a20300e@14.48.32.90
Supported: timer,resource-priority,replaces
Min-SE:  1800
User-Agent: Cisco-CUCM10.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Call-Info: ;method="NOTIFY;Event=telephone-event;Duration=500"
Cisco-Guid: 2881195520-0000065536-0000000012-1512058894
Session-Expires:  1800
P-Asserted-Identity: <sip:9110001@14.48.32.90>
Remote-Party-ID: <sip:9110001@14.48.32.90>;party=calling;screen=yes;privacy=off
Contact: <sip:9110001@14.48.32.90:5060>;isFocus
Max-Forwards: 70
Content-Length: 0
```

CUCM receives 200 OK in response to INVITE #2

```
03797498.001 |20:21:09.350 |AppInfo  |//SIP/SIPUdp/wait_SdlDataInd: Incoming SIP UDP message
size 736 from 14.48.32.170:[5060]:
[212235,NET]
SIP/2.0 200 OK
```

```
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK204e754eaeae
From: <sip:9110001@14.48.32.90;x-farend;x-refci=38960750;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=38960749;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=73602~713e2333-4032-45f1-b1f5-e33cf471acec-38960757
To: <sip:8675309@14.48.32.170>;tag=2
Call-ID: abbb8e00-4291f775-204d-5a20300e@14.48.32.90
CSeq: 101 INVITE
Contact: <sip:14.48.32.170:5060;transport=udp>
Content-Type: application/sdp
Content-Length:   135

v=0
o=user1 53655765 2353687637 IN IP4 14.48.32.170
s=-
c=IN IP4 14.48.32.170
t=0 0
m=audio 6000 RTP/AVP 0
a=rtpmap:0 PCMU/8000

### CUCM sends outbound ACK in response to 200 OK #1

03797500.001 |20:21:09.351 |AppInfo  |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message
to 14.48.32.170:[5060]:
[212236,NET]
ACK sip:14.48.32.170:5060;transport=UDP SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK204f50bef815
From: <sip:9110001@14.48.32.90;x-nearend;x-refci=38960750;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=38960749;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=73601~713e2333-4032-45f1-b1f5-e33cf471acec-38960754
To: <sip:8675309@14.48.32.170>;tag=1
Date: Tue, 30 Sep 2014 00:21:09 GMT
Call-ID: abbb8e00-4291f775-204c-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 254

v=0
o=CiscoSystemsCCM-SIP 73601 1 IN IP4 14.48.32.90
s=SIP Call
c=IN IP4 14.48.32.33
b=TIAS:64000
b=CT:64
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 0 101
a=ptime:20
a=rtpmap:0 PCMU/8000
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

### CUCM sends startMediaTransmission to the called (recorded) phone telling the phone to send
RTP to recording server (14.48.32.170)

03797479.001 |20:21:09.350 |AppInfo  |StationD:    (0000114) startMediaTransmission
conferenceID=38960750 passThruPartyID=33554452 remoteIpAddress=IpAddr.type:0
ipAddr:0x0e3020aa000000000000000000000000(14.48.32.170) remotePortNumber=6000
milliSecondPacketSize=20 compressType=4(Media_Payload_G711Ulaw64k) RFC2833PayloadType=0
```

```
qualifierOut=?. myIP: IpAddr.type:0 ipv4Addr:0x0e302021(14.48.32.33)
```

CUCM sends startMediaTransmission #2 to the called (recorded) phone telling the phone to send RTP to recording server (14.48.32.170)

```
03797596.001 |20:21:09.354 |AppInfo  |StationD:    (0000114) startMediaTransmission
conferenceID=38960750 passThruPartyID=33554453 remoteIpAddress=IpAddr.type:0
ipAddr:0x0e3020aa000000000000000000000000(14.48.32.170) remotePortNumber=6000
milliSecondPacketSize=20 compressType=4(Media_Payload_G711Ulaw64k) RFC2833PayloadType=0
qualifierOut=?. myIP: IpAddr.type:0 ipv4Addr:0x0e302021(14.48.32.33)
```

CUCM sends outbound ACK in response to 200 OK #2

```
03797615.001 |20:21:09.354 |AppInfo  |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message
to 14.48.32.170:[5060]:
[212237,NET]
ACK sip:14.48.32.170:5060;transport=UDP SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK2050183495f1
From: <sip:9110001@14.48.32.90;x-farend;x-refci=38960750;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=38960749;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=73602~713e2333-4032-45f1-b1f5-e33cf471acec-38960757
To: <sip:8675309@14.48.32.170>;tag=2
Date: Tue, 30 Sep 2014 00:21:09 GMT
Call-ID: abbb8e00-4291f775-204d-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 254

v=0
o=CiscoSystemsCCM-SIP 73602 1 IN IP4 14.48.32.90
s=SIP Call
c=IN IP4 14.48.32.33
b=TIAS:64000
b=CT:64
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 0 101
a=ptime:20
a=rtpmap:0 PCMU/8000
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

Calling phone sends CUCM the ORC ACK

```
03797634.001 |20:21:09.385 |AppInfo  |StationInit: (0000109) OpenReceiveChannelAck Status=0,
IpAddr=IpAddr.type:0 ipAddr:0x0e30201c000000000000000000000000(14.48.32.28), Port=17996,
PartyID=33554450
```

CUCM sends startMediaTransmission to the called (recorded) phone telling the phone to send RTP to the calling phone (14.48.32.28)

```
03797642.001 |20:21:09.385 |AppInfo  |StationD:    (0000114) startMediaTransmission
conferenceID=38960750 passThruPartyID=33554451 remoteIpAddress=IpAddr.type:0
ipAddr:0x0e30201c000000000000000000000000(14.48.32.28) remotePortNumber=17996
milliSecondPacketSize=20 compressType=4(Media_Payload_G711Ulaw64k) RFC2833PayloadType=0
qualifierOut=?. myIP: IpAddr.type:0 ipv4Addr:0x0e302021(14.48.32.33)
```

Called (recorded) phone sends CUCM the ORC ACK

03797643.001 |20:21:09.454 |AppInfo |StationInit: (0000114) OpenReceiveChannelAck Status=0, IpAddr=IpAddr.type:0 ipAddr:0x0e302021000000000000000000000000(14.48.32.33), Port=32588, PartyID=33554451

CUCM sends startMediaTransmission to the calling phone telling the phone to send RTP to the called phone (14.48.32.33)

03797655.001 |20:21:09.454 |AppInfo |StationD: (0000109) startMediaTransmission conferenceID=
38960749 passThruPartyID=33554450 remoteIpAddress=IpAddr.type:0
ipAddr:0x0e302021000000000000000000000000(14.48.32.33) remotePortNumber=32588
milliSecondPacketSize=20 compressType=4(Media_Payload_G711Ulaw64k) RFC2833PayloadType=0
qualifierOut=?. myIP: IpAddr.type:0 ipv4Addr:0x0e30201c(14.48.32.28)

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Normal CCM Traces for SCCP phone to SIP phone with SIP Integrated Call Recording
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Calling phone places call

01314118.001 |11:18:44.472 |AppInfo |StationInit: (0000004) EnblocCall calledParty=9110011.

CUCM performs digit analysis against the dialed digits (dd="9110011")

01314127.001 |11:18:44.473 |AppInfo |Digit Analysis: star_DaReq: daReq.partitionSearchSpace(), filteredPartitionSearchSpaceString(), partitionSearchSpaceString()
01314127.002 |11:18:44.473 |AppInfo |Digit Analysis: star_DaReq: Matching Legacy Numeric, digits=9110011
01314127.003 |11:18:44.499 |AppInfo |Digit Analysis: getDaRes data: daRes.ssType=[0] Intercept DAMR.sstype=[0], TPcount=[0], DAMR.NotifyCount=[0], DaRes.NotifyCount=[0]
01314127.004 |11:18:44.499 |AppInfo |Digit Analysis: getDaRes - Remote Destination [] isURI[1]
01314127.005 |11:18:44.506 |AppInfo |Digit analysis: patternUsage=2
01314127.006 |11:18:44.506 |AppInfo |Digit analysis: match(pi="2", fqcn="9110006", cn="9110006",plv="5", pss="", TodFilteredPss="", dd="9110011",dac="1")
01314127.007 |11:18:44.506 |AppInfo |Digit analysis: analysis results
01314127.008 |11:18:44.506 |AppInfo ||PretransformCallingPartyNumber=9110006
|CallingPartyNumber=9110006
|DialingPartition=
|DialingPattern=9110011
|FullyQualifiedCalledPartyNumber=9110011
|DialingPatternRegularExpression=(9110011)
|DialingWhere=
|PatternType=Enterprise
|PotentialMatches=NoPotentialMatchesExist
|DialingSdlProcessId=(0,0,0)
|PretransformDigitString=9110011
|PretransformTagsList=SUBSCRIBER
|PretransformPositionalMatchList=9110011
|CollectedDigits=9110011

CUCM determines call must stay on same node and go to LineControl (PID=LineControl(2,100,174,19))

01314129.001 |11:18:44.506 |AppInfo |Digit analysis: wait_DmPidRes- Partition=[] Pattern=[9110011] Where=[],cmDeviceType=[UserDevice], OutsideDialtone =[0], DeviceOverride=[0], PID=LineControl(2,100,174,19),CI=[47601637],Sender=Cdcc(2,100,219,1)

CUCM sends outbound INVITE to called (recorded) phone

```
01314173.001 |11:18:44.754 |AppInfo  |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to
14.48.32.17 on port 50841 index 17
[106316,NET]
INVITE sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK203b13880683
From: <sip:9110006@14.48.32.90>;tag=38244~713e2333-4032-45f1-b1f5-e33cf471acec-47601638
To: <sip:9110011@14.48.32.90>
Date: Tue, 14 Oct 2014 15:18:44 GMT
Call-ID: 6198e780-43d13ed4-203c-5a20300e@14.48.32.90
Supported: timer,resource-priority,replaces
Min-SE:  1800
User-Agent: Cisco-CUCM10.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Expires: 180
Allow-Events: presence
Call-Info: ; security= Unknown; orientation= from; gci= 2-6001; isVoip; call-instance= 1
Send-Info: conference, x-cisco-conference
Alert-Info:
Remote-Party-ID: <sip:9110006@14.48.32.90;x-cisco-callback-
number=9110006>;party=calling;screen=yes;privacy=off
Contact: <sip:9110006@14.48.32.90:5060;transport=tcp>
Max-Forwards: 70
Content-Length: 0
```

Called (recorded) phone returns 100 Trying

```
01314174.002 |11:18:44.758 |AppInfo  |SIPTcp - wait_SdlReadRsp: Incoming SIP TCP message from
14.48.32.17 on port 50841 index 17 with 802 bytes:
[106317,NET]
SIP/2.0 100 Trying
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK203b13880683
From: <sip:9110006@14.48.32.90>;tag=38244~713e2333-4032-45f1-b1f5-e33cf471acec-47601638
To: <sip:9110011@14.48.32.90>
Call-ID: 6198e780-43d13ed4-203c-5a20300e@14.48.32.90
Date: Tue, 14 Oct 2014 15:18:51 GMT
CSeq: 101 INVITE
Server: Cisco-CP8841/10.2.1
Contact: <sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO
Supported: replaces,join,sdp-anat,norefersub,resource-priority,extended-refer,X-cisco-
callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-
cisco-monrec,X-cisco-config,X-cisco-sis-7.0.0,X-cisco-xsi-8.5.1
Allow-Events: kpml,dialog
Content-Length: 0
```

Called (recorded) phone returns 180 Ringing

```
01314178.002 |11:18:45.357 |AppInfo  |SIPTcp - wait_SdlReadRsp: Incoming SIP TCP message from
14.48.32.17 on port 50841 index 17 with 950 bytes:
[106318,NET]
SIP/2.0 180 Ringing
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK203b13880683
From: <sip:9110006@14.48.32.90>;tag=38244~713e2333-4032-45f1-b1f5-e33cf471acec-47601638
To: <sip:9110011@14.48.32.90>;tag=b000b4d9e8cb0bba73e445ee-3cc7e650
Call-ID: 6198e780-43d13ed4-203c-5a20300e@14.48.32.90
Date: Tue, 14 Oct 2014 15:18:51 GMT
CSeq: 101 INVITE
Server: Cisco-CP8841/10.2.1
Contact: <sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO
```

```
Remote-Party-ID: "9110011" <sip:9110011@14.48.32.90>;party=called;id-
type=subscriber;privacy=off;screen=yes
Supported: replaces,join,sdp-anat,norefersub,resource-priority,extended-refer,X-cisco-
callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-
cisco-monrec,X-cisco-config,X-cisco-sis-7.0.0,X-cisco-xsi-8.5.1
Allow-Events: kpml,dialog
Content-Length: 0

### Called (recorded) phone returns 200 OK

01314217.002 |11:18:48.466 |AppInfo  |SIPTcp - wait_SdlReadRsp: Incoming SIP TCP message from
14.48.32.17 on port 50841 index 17 with 1430 bytes:
[106319,NET]
SIP/2.0 200 OK
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK203b13880683
From: <sip:9110006@14.48.32.90>;tag=38244~713e2333-4032-45f1-b1f5-e33cf471acec-47601638
To: <sip:9110011@14.48.32.90>;tag=b000b4d9e8cb0bba73e445ee-3cc7e650
Call-ID: 6198e780-43d13ed4-203c-5a20300e@14.48.32.90
Date: Tue, 14 Oct 2014 15:18:54 GMT
CSeq: 101 INVITE
Server: Cisco-CP8841/10.2.1
Contact: <sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO
Remote-Party-ID: "9110011" <sip:9110011@14.48.32.90>;party=called;id-
type=subscriber;privacy=off;screen=yes
Supported: replaces,join,sdp-anat,norefersub,resource-priority,extended-refer,X-cisco-
callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-
cisco-monrec,X-cisco-config,X-cisco-sis-7.0.0,X-cisco-xsi-8.5.1
Allow-Events: kpml,dialog
Content-Length: 404
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 15076 0 IN IP4 14.48.32.17
s=SIP Call
t=0 0
m=audio 28354 RTP/AVP 0 8 18 102 9 116 124 101
c=IN IP4 14.48.32.17
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=fmtp:18 annexb=yes
a=rtpmap:102 L16/16000
a=rtpmap:9 G722/8000
a=rtpmap:116 iLBC/8000
a=fmtp:116 mode=20
a=rtpmap:124 ISAC/16000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

### CUCM Tells the calling phone to open the logical channel

01314284.001 |11:18:48.599 |AppInfo  |StationD:    (0000004) SEP0018195AA209 ,
star_MediaExchangeAgenaOpenLogicalChannel packetSize=20, codec=4, ci=47601637

### CUCM Tells the calling phone to open the receive channel

01314294.002 |11:18:48.599 |AppInfo  |StationD:    (0000004) OpenReceiveChannel
conferenceID=47601637 passThruPartyID=33554433 millisecondPacketSize=20
compressionType=4(Media_Payload_G711Ulaw64k) RFC2833PayloadType=101 qualifierIn=?
sourceIpAddr=IpAddr.type:0 ipAddr:0x0e302011000000000000000000000000(14.48.32.17). myIP:
```

```
IpAddr.type:0 ipv4Addr:0x0e30201c(14.48.32.28)
```

CUCM sends startMediaTransmission to the calling phone telling the phone to send RTP to the called (recorded) phone (14.48.32.17)

```
01314295.001 |11:18:48.599 |AppInfo  |StationD:    (0000004) startMediaTransmission
conferenceID=47601637 passThruPartyID=33554433 remoteIpAddress=IpAddr.type:0
ipAddr:0x0e30201100000000000000000000000(14.48.32.17) remotePortNumber=28354
milliSecondPacketSize=20 compressType=4(Media_Payload_G711Ulaw64k) RFC2833PayloadType=101
qualifierOut=?. myIP: IpAddr.type:0 ipv4Addr:0x0e30201c(14.48.32.28)
```

CUCM sends ACK to called (recorded) phone telling the called phone to send media to the calling phone (14.48.32.28)

```
01314344.001 |11:18:48.652 |AppInfo  |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to
14.48.32.17 on port 50841 index 17
[106320,NET]
ACK sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK203c2831c118
From: <sip:9110006@14.48.32.90>;tag=38244~713e2333-4032-45f1-b1f5-e33cf471acec-47601638
To: <sip:9110011@14.48.32.90>;tag=b000b4d9e8cb0bba73e445ee-3cc7e650
Date: Tue, 14 Oct 2014 15:18:44 GMT
Call-ID: 6198e780-43d13ed4-203c-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 243

v=0
o=CiscoSystemsCCM-SIP 38244 1 IN IP4 14.48.32.90
s=SIP Call
c=IN IP4 14.48.32.28
b=TIAS:64000
b=CT:64
b=AS:64
t=0 0
m=audio 17260 RTP/AVP 0 101
a=ptime:20
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

CUCM allocates BiB on called (recorded) phone

```
01314383.000 |11:18:48.675 |SdlSig   |MrmAllocateUcbResourceReq              |waiting
|MediaResourceManager(2,100,138,1) |Cc(2,100,220,1)
|2,100,14,20.16735^14.48.32.28^SEP0018195AA209 |[R:N-H:0,N:3,L:1,V:0,Z:0,D:0]  CI=47601639
SsType=33554461 SsKey=1 BridgeType=0 MRGLPkid= NumStream=1 Bib=c32d6714-48bd-43d7-b96f-
91363aff3aa0 BibTgCi=47601638 FeatId=159 PL=5 PLDmn=0 DeviceCapability=0 NumVideoCapable=0
requestDeviceType=0 requestDeviceLocale=64 forkingDevicePosition=2 playToneDir=3
```

CUCM sends INVITE #1 to called (recorded) phone with record-invoker=auto in Call-Info field and original Call-ID in Join field
Notice the SDP has a=inactive to tear down the media

```
01314446.001 |11:18:48.682 |AppInfo  |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to
14.48.32.17 on port 50841 index 17
[106321,NET]
INVITE sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK203d55363a7c
From: "Call Manager" ;tag=38246~713e2333-4032-45f1-b1f5-e33cf471acec-47601641
```

```
To: <sip:9110011@14.48.32.90>
Date: Tue, 14 Oct 2014 15:18:48 GMT
Call-ID: 63fb4180-43d13ed8-203d-5a20300e@14.48.32.90
Supported: timer,resource-priority,replaces
Min-SE:  1800
User-Agent: Cisco-CUCM10.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Expires: 180
Allow-Events: presence
Call-Info: ; isVoip; record-invoker=auto
Join: 6198e780-43d13ed4-203c-5a20300e@14.48.32.90;from-tag=b000b4d9e8cb0bba73e445ee-3cc7e650;to-
tag=38244~713e2333-4032-45f1-b1f5-e33cf471acec-47601638
Contact: <sip:14.48.32.90:5060;transport=tcp>
Remote-Party-ID: "Call Manager" ;party=calling;screen=yes;privacy=off
Max-Forwards: 70
Content-Type: application/sdp
Content-Length: 188

v=0
o=CiscoSystemsCCM-SIP 38246 1 IN IP4 14.48.32.90
s=SIP Call
c=IN IP4 14.48.32.90
t=0 0
m=audio 4000 RTP/AVP 0
a=label:X-relay-nearend
a=rtpmap:0 PCMU/8000
a=inactive
a=mid:1

### Called (recorded) phone returns 200 OK
Notice the SDP has a=inactive to tear down the media

01314449.002 |11:18:48.702 |AppInfo  |SIPTcp - wait_SdlReadRsp: Incoming SIP TCP message from
14.48.32.17 on port 50841 index 17 with 1235 bytes:
[106323,NET]
SIP/2.0 200 OK
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK203d55363a7c
From: "Call Manager" ;tag=38246~713e2333-4032-45f1-b1f5-e33cf471acec-47601641
To: <sip:9110011@14.48.32.90>;tag=b000b4d9e8cb0bbb4457e725-6869188a
Call-ID: 63fb4180-43d13ed8-203d-5a20300e@14.48.32.90
Date: Tue, 14 Oct 2014 15:18:55 GMT
CSeq: 101 INVITE
Server: Cisco-CP8841/10.2.1
Contact: <sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO
Remote-Party-ID: "9110011" <sip:9110011@14.48.32.90>;party=called;id-
type=subscriber;privacy=off;screen=yes
Supported: replaces,join,sdp-anat,norefersub,resource-priority,extended-refer,X-cisco-
callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-
cisco-monrec,X-cisco-config,X-cisco-sis-7.0.0,X-cisco-xsi-8.5.1
Allow-Events: kpml,dialog
Content-Length: 202
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 4077 0 IN IP4 14.48.32.17
s=SIP Call
t=0 0
m=audio 28512 RTP/AVP 0 101
c=IN IP4 14.48.32.17
a=rtpmap:0 PCMU/8000
```

```
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=inactive

### CUCM responds to called (recorded) phone with ACK

01314452.001 |11:18:48.702 |AppInfo  |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to
14.48.32.17 on port 50841 index 17
[106324,NET]
ACK sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK203e9999fc7
From: "Call Manager" ;tag=38246~713e2333-4032-45f1-b1f5-e33cf471acec-47601641
To: <sip:9110011@14.48.32.90>;tag=b000b4d9e8cb0bbb4457e725-6869188a
Date: Tue, 14 Oct 2014 15:18:48 GMT
Call-ID: 63fb4180-43d13ed8-203d-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Length: 0

### BiB places first call to recording destination address (cn is calling party which is the BiB
cn="b0028310001" and it is dialing the recordingdestination dd="8675309")


01314484.003 |11:18:48.753 |AppInfo  |Digit Analysis: getDaRes data: daRes.ssType=[0] Intercept
DAMR.sstype=[0], TPcount=[0], DAMR.NotifyCount=[0], DaRes.NotifyCount=[0]
01314484.004 |11:18:48.753 |AppInfo  |Digit Analysis: getDaRes - Remote Destination [8675309]
isURI[0]
01314484.005 |11:18:48.765 |AppInfo  |CMUtility routeCallThroughCTIRD: no matching
RemDestDynamic record exists for remdest [8675309]
01314484.006 |11:18:48.765 |AppInfo  |DbMobility: getMatchedRemDest starts: cnumber = 8675309
01314484.007 |11:18:48.765 |AppInfo  |DbMobility: getMatchedRemDest: full match case
01314484.008 |11:18:48.765 |AppInfo  |DbMobility SelectByDestination: no matching RemDestDynamic
record exists for remdest [8675309]
01314484.009 |11:18:48.765 |AppInfo  |DbMobility: can't find remdest 8675309 in map
01314484.010 |11:18:48.765 |AppInfo  |Digit analysis: patternUsage=5
01314484.011 |11:18:48.765 |AppInfo  |Digit analysis: match(pi="1", fqcn="",
cn="b0028310001",plv="5", pss="E911_PT:Phones_PT:EMERGENCY_PT:INTERNAL_PT:INFORMACAST_PT",
TodFilteredPss="E911_PT:Phones_PT:EMERGENCY_PT:INTERNAL_PT:INFORMACAST_PT",
dd="8675309",dac="1")
01314484.012 |11:18:48.765 |AppInfo  |Digit analysis: analysis results
01314484.013 |11:18:48.765 |AppInfo  ||PretransformCallingPartyNumber=b0028310001
|CallingPartyNumber=b0028310001
|DialingPartition=
|DialingPattern=8675309
|FullyQualifiedCalledPartyNumber=8675309
|DialingPatternRegularExpression=(8675309)
|DialingWhere=
|PatternType=Enterprise
|PotentialMatches=NoPotentialMatchesExist
|DialingSdlProcessId=(0,0,0)
|PretransformDigitString=8675309
|PretransformTagsList=SUBSCRIBER
|PretransformPositionalMatchList=8675309
|CollectedDigits=8675309

### CUCM sends INVITE #1 to configured recording server (14.48.32.170)

01314552.001 |11:18:48.795 |AppInfo  |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message
to 14.48.32.170:[5060]:
[106325,NET]
INVITE sip:8675309@14.48.32.170:5060 SIP/2.0
```

```
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK203f3135e715
From: <sip:9110011@14.48.32.90;x-nearend;x-refci=47601638;x-nearendclusterid=glenscucm10-5;x-nearenddevice=sepb000b4d9e8cb;x-nearendaddr=9110011;x-farendrefci=47601637;x-farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-farendaddr=9110006>;tag=38248~713e2333-4032-45f1-b1f5-e33cf471acec-47601642
To: <sip:8675309@14.48.32.170>
Date: Tue, 14 Oct 2014 15:18:48 GMT
Call-ID: 63fb4180-43d13ed8-203e-5a20300e@14.48.32.90
Supported: timer,resource-priority,replaces
Min-SE:  1800
User-Agent: Cisco-CUCM10.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Call-Info: ;method="NOTIFY;Event=telephone-event;Duration=500"
Call-Info: ;x-cisco-video-traffic-class=DESKTOP
Cisco-Guide: 1677410688-0000065536-0000000001-1512058894
Session-Expires:  1800
P-Asserted-Identity: <sip:9110011@14.48.32.90>
Remote-Party-ID: <sip:9110011@14.48.32.90>;party=calling;screen=yes;privacy=off
Contact: <sip:9110011@14.48.32.90:5060>;isFocus
Max-Forwards: 70
Content-Length: 0
```

CUCM sends INVITE #2 to called (recorded) phone with record-invoker=auto in Call-Info field and original Call-ID in Join field
Notice the SDP has a=inactive to tear down the media

```
01314575.001 |11:18:48.796 |AppInfo  |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to 14.48.32.17 on port 50841 index 17
[106326,NET]
INVITE sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK20401b237b36
From: "Call Manager" ;tag=38249~713e2333-4032-45f1-b1f5-e33cf471acec-47601644
To: <sip:9110011@14.48.32.90>
Date: Tue, 14 Oct 2014 15:18:48 GMT
Call-ID: 63fb4180-43d13ed8-203f-5a20300e@14.48.32.90
Supported: timer,resource-priority,replaces
Min-SE:  1800
User-Agent: Cisco-CUCM10.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Expires: 180
Allow-Events: presence
Call-Info: ; isVoip; record-invoker=auto
Join: 6198e780-43d13ed4-203c-5a20300e@14.48.32.90;from-tag=b000b4d9e8cb0bba73e445ee-3cc7e650;to-tag=38244~713e2333-4032-45f1-b1f5-e33cf471acec-47601638
Contact: <sip:14.48.32.90:5060;transport=tcp>
Remote-Party-ID: "Call Manager" ;party=calling;screen=yes;privacy=off
Max-Forwards: 70
Content-Type: application/sdp
Content-Length: 187

v=0
o=CiscoSystemsCCM-SIP 38249 1 IN IP4 14.48.32.90
s=SIP Call
c=IN IP4 14.48.32.90
t=0 0
m=audio 4000 RTP/AVP 0
a=label:X-relay-farend
```

```
a=rtpmap:0 PCMU/8000
a=inactive
a=mid:1
```

CUCM receives 200 OK in response to INVITE #1 to recording server

```
01314583.001 |11:18:48.862 |AppInfo  |//SIP/SIPUdp/wait_SdlDataInd: Incoming SIP UDP message
size 737 from 14.48.32.170:[5060]:
[106328,NET]
SIP/2.0 200 OK
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK203f3135e715
From: <sip:9110011@14.48.32.90;x-nearend;x-refci=47601638;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sepb000b4d9e8cb;x-nearendaddr=9110011;x-farendrefci=47601637;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=38248~713e2333-4032-45f1-b1f5-e33cf471acec-47601642
To: <sip:8675309@14.48.32.170>;tag=1
Call-ID: 63fb4180-43d13ed8-203e-5a20300e@14.48.32.90
CSeq: 101 INVITE
Contact: <sip:14.48.32.170:5060;transport=udp>
Content-Type: application/sdp
Content-Length:   135

v=0
o=user1 53655765 2353687637 IN IP4 14.48.32.170
s=-
c=IN IP4 14.48.32.170
t=0 0
m=audio 6000 RTP/AVP 0
a=rtpmap:0 PCMU/8000
```

CUCM sends re-INVITE to called (recorded) phone for call #1 to invoke the BiB (notice there is no SDP)

```
01314644.001 |11:18:48.864 |AppInfo  |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to
14.48.32.17 on port 50841 index 17
[106329,NET]
INVITE sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK204176d717cd
From: "Call Manager" ;tag=38246~713e2333-4032-45f1-b1f5-e33cf471acec-47601641
To: <sip:9110011@14.48.32.90>;tag=b000b4d9e8cb0bbb4457e725-6869188a
Date: Tue, 14 Oct 2014 15:18:48 GMT
Call-ID: 63fb4180-43d13ed8-203d-5a20300e@14.48.32.90
Supported: timer,resource-priority,replaces
User-Agent: Cisco-CUCM10.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, SUBSCRIBE, NOTIFY
CSeq: 102 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence
Call-Info: ; isVoip; record-invoker=auto
Min-SE:  1800
Remote-Party-ID: "Call Manager" ;party=calling;screen=yes;privacy=off
Contact: <sip:14.48.32.90:5060;transport=tcp>
Content-Length: 0
```

Called (recorded) phone returns 200 OK in response to INVITE #2 to invoke BiB
Notice the SDP has a=inactive to tear down the media

```
01314645.002 |11:18:48.865 |AppInfo  |SIPTcp - wait_SdlReadRsp: Incoming SIP TCP message from
14.48.32.17 on port 50841 index 17 with 1236 bytes:
[106330,NET]
SIP/2.0 200 OK
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK20401b237b36
```

```
From: "Call Manager" ;tag=38249~713e2333-4032-45f1-b1f5-e33cf471acec-47601644
To: <sip:9110011@14.48.32.90>;tag=b000b4d9e8cb0bbc4d5b7fc6-3ab2172f
Call-ID: 63fb4180-43d13ed8-203f-5a20300e@14.48.32.90
Date: Tue, 14 Oct 2014 15:18:55 GMT
CSeq: 101 INVITE
Server: Cisco-CP8841/10.2.1
Contact: <sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO
Remote-Party-ID: "9110011" <sip:9110011@14.48.32.90>;party=called;id-
type=subscriber;privacy=off;screen=yes
Supported: replaces,join,sdp-anat,norefersub,resource-priority,extended-refer,X-cisco-
callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-
cisco-monrec,X-cisco-config,X-cisco-sis-7.0.0,X-cisco-xsi-8.5.1
Allow-Events: kpml,dialog
Content-Length: 203
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 11326 0 IN IP4 14.48.32.17
s=SIP Call
t=0 0
m=audio 19696 RTP/AVP 0 101
c=IN IP4 14.48.32.17
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=inactive
```

CUCM responds with ACK for 200 OK for INVITE #2 to invoke the BiB

```
01314648.001 |11:18:48.866 |AppInfo  |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to
14.48.32.17 on port 50841 index 17
[106331,NET]
ACK sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK20424175effe
From: "Call Manager" ;tag=38249~713e2333-4032-45f1-b1f5-e33cf471acec-47601644
To: <sip:9110011@14.48.32.90>;tag=b000b4d9e8cb0bbc4d5b7fc6-3ab2172f
Date: Tue, 14 Oct 2014 15:18:48 GMT
Call-ID: 63fb4180-43d13ed8-203f-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Length: 0
```

BiB places second call to recording destination address (cn is calling party which is the BiB cn="b0028310001" and it is dialing the recordingdestination dd="8675309")

Note that the BiB number stayed the same (b0028310001) and so did the recordingdestination number

```
01314680.003 |11:18:48.867 |AppInfo  |Digit Analysis: getDaRes data: daRes.ssType=[0] Intercept
DAMR.sstype=[0], TPcount=[0], DAMR.NotifyCount=[0], DaRes.NotifyCount=[0]
01314680.004 |11:18:48.867 |AppInfo  |Digit Analysis: getDaRes - Remote Destination [8675309]
isURI[0]
01314680.005 |11:18:48.867 |AppInfo  |CMUtility routeCallThroughCTIRD: no matching
RemDestDynamic record exists for remdest [8675309]
01314680.006 |11:18:48.867 |AppInfo  |DbMobility: getMatchedRemDest starts: cnumber = 8675309
01314680.007 |11:18:48.867 |AppInfo  |DbMobility: getMatchedRemDest: full match case
01314680.008 |11:18:48.867 |AppInfo  |DbMobility SelectByDestination: no matching RemDestDynamic
record exists for remdest [8675309]
01314680.009 |11:18:48.867 |AppInfo  |DbMobility: can't find remdest 8675309 in map
01314680.010 |11:18:48.867 |AppInfo  |Digit analysis: patternUsage=5
```

```
01314680.011 |11:18:48.867 |AppInfo  |Digit analysis: match(pi="1", fqcn="",
cn="b0028310001",plv="5", pss="E911_PT:Phones_PT:EMERGENCY_PT:INTERNAL_PT:INFORMACAST_PT",
TodFilteredPss="E911_PT:Phones_PT:EMERGENCY_PT:INTERNAL_PT:INFORMACAST_PT",
dd="8675309",dac="1")
01314680.012 |11:18:48.867 |AppInfo  |Digit analysis: analysis results
01314680.013 |11:18:48.867 |AppInfo  ||PretransformCallingPartyNumber=b0028310001
|CallingPartyNumber=b0028310001
|DialingPartition=
|DialingPattern=8675309
|FullyQualifiedCalledPartyNumber=8675309
|DialingPatternRegularExpression=(8675309)
|DialingWhere=
|PatternType=Enterprise
|PotentialMatches=NoPotentialMatchesExist
|DialingSdlProcessId=(0,0,0)
|PretransformDigitString=8675309
|PretransformTagsList=SUBSCRIBER
|PretransformPositionalMatchList=8675309
|CollectedDigits=8675309
```

CUCM sends INVITE #2 to configured recording server

```
01314731.001 |11:18:48.870 |AppInfo  |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message
to 14.48.32.170:[5060]:
[106333,NET]
INVITE sip:8675309@14.48.32.170:5060 SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK20432a53d34c
From: <sip:9110011@14.48.32.90;x-farend;x-refci=47601638;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sepb000b4d9e8cb;x-nearendaddr=9110011;x-farendrefci=47601637;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=38251~713e2333-4032-45f1-b1f5-e33cf471acec-47601645
To: <sip:8675309@14.48.32.170>
Date: Tue, 14 Oct 2014 15:18:48 GMT
Call-ID: 63fb4180-43d13ed8-2040-5a20300e@14.48.32.90
Supported: timer,resource-priority,replaces
Min-SE:  1800
User-Agent: Cisco-CUCM10.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Call-Info: ;method="NOTIFY;Event=telephone-event;Duration=500"
Call-Info: ;x-cisco-video-traffic-class=DESKTOP
Cisco-Guid: 1677410688-0000065536-0000000002-1512058894
Session-Expires:  1800
P-Asserted-Identity: <sip:9110011@14.48.32.90>
Remote-Party-ID: <sip:9110011@14.48.32.90>;party=calling;screen=yes;privacy=off
Contact: <sip:9110011@14.48.32.90:5060>;isFocus
Max-Forwards: 70
Content-Length: 0
```

CUCM receives 200 OK in response to INVITE #2 from configured recording server

```
01314751.001 |11:18:48.871 |AppInfo  |//SIP/SIPUdp/wait_SdlDataInd: Incoming SIP UDP message
size 736 from 14.48.32.170:[5060]:
[106335,NET]
SIP/2.0 200 OK
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK20432a53d34c
From: <sip:9110011@14.48.32.90;x-farend;x-refci=47601638;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sepb000b4d9e8cb;x-nearendaddr=9110011;x-farendrefci=47601637;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
```

```
farendaddr=9110006>;tag=38251~713e2333-4032-45f1-b1f5-e33cf471acec-47601645
To: <sip:8675309@14.48.32.170>;tag=2
Call-ID: 63fb4180-43d13ed8-2040-5a20300e@14.48.32.90
CSeq: 101 INVITE
Contact: <sip:14.48.32.170:5060;transport=udp>
Content-Type: application/sdp
Content-Length:   135

v=0
o=user1 53655765 2353687637 IN IP4 14.48.32.170
s=-
c=IN IP4 14.48.32.170
t=0 0
m=audio 6000 RTP/AVP 0
a=rtpmap:0 PCMU/8000
```

CUCM sends re-INVITE #2 to called (recorded) phone for second BiB invocation call
Notice there is no SDP

```
01314828.001 |11:18:48.875 |AppInfo  |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to
14.48.32.17 on port 50841 index 17
[106336,NET]
INVITE sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK20443475e621
From: "Call Manager" ;tag=38249~713e2333-4032-45f1-b1f5-e33cf471acec-47601644
To: <sip:9110011@14.48.32.90>;tag=b000b4d9e8cb0bbc4d5b7fc6-3ab2172f
Date: Tue, 14 Oct 2014 15:18:48 GMT
Call-ID: 63fb4180-43d13ed8-203f-5a20300e@14.48.32.90
Supported: timer,resource-priority,replaces
User-Agent: Cisco-CUCM10.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, SUBSCRIBE, NOTIFY
CSeq: 102 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence
Call-Info: ; isVoip; record-invoker=auto
Min-SE:  1800
Remote-Party-ID: "Call Manager" ;party=calling;screen=yes;privacy=off
Contact: <sip:14.48.32.90:5060;transport=tcp>
Content-Length: 0
```

Called (recorded) phone returns 200 OK to re-INVITE #1

```
01314829.002 |11:18:48.876 |AppInfo  |SIPTcp - wait_SdlReadRsp: Incoming SIP TCP message from
14.48.32.17 on port 50841 index 17 with 1235 bytes:
[106337,NET]
SIP/2.0 200 OK
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK204176d717cd
From: "Call Manager" ;tag=38246~713e2333-4032-45f1-b1f5-e33cf471acec-47601641
To: <sip:9110011@14.48.32.90>;tag=b000b4d9e8cb0bbb4457e725-6869188a
Call-ID: 63fb4180-43d13ed8-203d-5a20300e@14.48.32.90
Date: Tue, 14 Oct 2014 15:18:55 GMT
CSeq: 102 INVITE
Server: Cisco-CP8841/10.2.1
Contact: <sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO
Remote-Party-ID: "9110011" <sip:9110011@14.48.32.90>;party=called;id-
type=subscriber;privacy=off;screen=yes
Supported: replaces,join,sdp-anat,norefersub,resource-priority,extended-refer,X-cisco-
callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-
cisco-monrec,X-cisco-config,X-cisco-sis-7.0.0,X-cisco-xsi-8.5.1
Allow-Events: kpml,dialog
Content-Length: 202
```

```
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 4077 1 IN IP4 14.48.32.17
s=SIP Call
t=0 0
m=audio 28512 RTP/AVP 0 101
c=IN IP4 14.48.32.17
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

### CUCM sends ACK to called (recorded) phone for re-INVITE #1

01314873.001 |11:18:48.880 |AppInfo  |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to
14.48.32.17 on port 50841 index 17
[106338,NET]
ACK sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK204521531f4b
From: "Call Manager" ;tag=38246~713e2333-4032-45f1-b1f5-e33cf471acec-47601641
To: <sip:9110011@14.48.32.90>;tag=b000b4d9e8cb0bbb4457e725-6869188a
Date: Tue, 14 Oct 2014 15:18:48 GMT
Call-ID: 63fb4180-43d13ed8-203d-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 178

v=0
o=CiscoSystemsCCM-SIP 38246 3 IN IP4 14.48.32.90
s=SIP Call
c=IN IP4 14.48.32.170
b=TIAS:64000
b=AS:64
t=0 0
m=audio 6000 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=recvonly

### CUCM sends ACK to configured recording server for INVITE #1

01314875.001 |11:18:48.880 |AppInfo  |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message
to 14.48.32.170:[5060]:
[106339,NET]
ACK sip:14.48.32.170:5060;transport=UDP SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK20467ee6be7
From: <sip:9110011@14.48.32.90;x-nearend;x-refci=47601638;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sepb000b4d9e8cb;x-nearendaddr=9110011;x-farendrefci=47601637;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=38248~713e2333-4032-45f1-b1f5-e33cf471acec-47601642
To: <sip:8675309@14.48.32.170>;tag=1
Date: Tue, 14 Oct 2014 15:18:48 GMT
Call-ID: 63fb4180-43d13ed8-203e-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 234
```

```
v=0
o=CiscoSystemsCCM-SIP 38248 1 IN IP4 14.48.32.90
s=SIP Call
c=IN IP4 14.48.32.17
b=TIAS:64000
b=AS:64
t=0 0
m=audio 28512 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

Called (recorded) phone returns 200 OK for re-INVITE #2

```
01314878.005 |11:18:48.881 |AppInfo  |SIPTcp - wait_SdlReadRsp: Incoming SIP TCP message from
14.48.32.17 on port 50841 index 17 with 1236 bytes:
[106341,NET]
SIP/2.0 200 OK
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK20443475e621
From: "Call Manager" ;tag=38249~713e2333-4032-45f1-b1f5-e33cf471acec-47601644
To: <sip:9110011@14.48.32.90>;tag=b000b4d9e8cb0bbc4d5b7fc6-3ab2172f
Call-ID: 63fb4180-43d13ed8-203f-5a20300e@14.48.32.90
Date: Tue, 14 Oct 2014 15:18:55 GMT
CSeq: 102 INVITE
Server: Cisco-CP8841/10.2.1
Contact: <sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO
Remote-Party-ID: "9110011" <sip:9110011@14.48.32.90>;party=called;id-
type=subscriber;privacy=off;screen=yes
Supported: replaces,join,sdp-anat,norefersub,resource-priority,extended-refer,X-cisco-
callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-
cisco-monrec,X-cisco-config,X-cisco-sis-7.0.0,X-cisco-xsi-8.5.1
Allow-Events: kpml,dialog
Content-Length: 203
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 11326 1 IN IP4 14.48.32.17
s=SIP Call
t=0 0
m=audio 19696 RTP/AVP 0 101
c=IN IP4 14.48.32.17
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv
```

CUCM sends ACK to called (recorded) phone for re-INVITE #2

```
01314907.001 |11:18:48.883 |AppInfo  |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to
14.48.32.17 on port 50841 index 17
[106342,NET]
ACK sip:56ce4d7f-d3a2-40fd-a8b3-3f93c8832b9d@14.48.32.17:50841;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 14.48.32.90:5060;branch=z9hG4bK204755ae79c7
From: "Call Manager" ;tag=38249~713e2333-4032-45f1-b1f5-e33cf471acec-47601644
To: <sip:9110011@14.48.32.90>;tag=b000b4d9e8cb0bbc4d5b7fc6-3ab2172f
Date: Tue, 14 Oct 2014 15:18:48 GMT
Call-ID: 63fb4180-43d13ed8-203f-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
```

```
CSeq: 102 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 178

v=0
o=CiscoSystemsCCM-SIP 38249 3 IN IP4 14.48.32.90
s=SIP Call
c=IN IP4 14.48.32.170
b=TIAS:64000
b=AS:64
t=0 0
m=audio 6000 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=recvonly

### CUCM sends ACK to configured recording server for INVITE #2

01314909.001 |11:18:48.883 |AppInfo  |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message
to 14.48.32.170:[5060]:
[106343,NET]
ACK sip:14.48.32.170:5060;transport=UDP SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK204854e1b53f
From: <sip:9110011@14.48.32.90;x-farend;x-refci=47601638;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sepb000b4d9e8cb;x-nearendaddr=9110011;x-farendrefci=47601637;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=38251~713e2333-4032-45f1-b1f5-e33cf471acec-47601645
To: <sip:8675309@14.48.32.170>;tag=2
Date: Tue, 14 Oct 2014 15:18:48 GMT
Call-ID: 63fb4180-43d13ed8-2040-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 234

v=0
o=CiscoSystemsCCM-SIP 38251 1 IN IP4 14.48.32.90
s=SIP Call
c=IN IP4 14.48.32.17
b=TIAS:64000
b=AS:64
t=0 0
m=audio 19696 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

Troubleshooting

Esta sección proporciona a la información que usted puede utilizar para resolver problemas su configuración.

Negociación de códec

Éste es un ejemplo de uno de la mayoría de los tipos comunes de errores de la grabación de la llamada - discrepancia de cÓdec entre el teléfono registrado y el servidor de la grabación:

```
~~~~~~~~~~~~~~~~~~~~~~~~~~
Codec Negotiation Failure
~~~~~~~~~~~~~~~~~~~~~~~~~~

### Calling phone places call

00019629.001 |12:48:34.510 |AppInfo  |StationInit: (0000005) EnblocCall calledParty=9110001.



### CUCM performs digit analysis against the dialed digits (dd="9110001")

00019638.001 |12:48:34.511 |AppInfo  |Digit Analysis: star_DaReq: daReq.partitionSearchSpace(),
filteredPartitionSearchSpaceString(), partitionSearchSpaceString()
00019638.002 |12:48:34.511 |AppInfo  |Digit Analysis: star_DaReq: Matching Legacy Numeric,
digits=9110001
00019638.003 |12:48:34.522 |AppInfo  |Digit Analysis: getDaRes data: daRes.ssType=[0] Intercept
DAMR.sstype=[0], TPcount=[0], DAMR.NotifyCount=[0], DaRes.NotifyCount=[0]
00019638.004 |12:48:34.522 |AppInfo  |Digit Analysis: getDaRes - Remote Destination [] isURI[1]
00019638.005 |12:48:34.522 |AppInfo  |Digit analysis: patternUsage=2
00019638.006 |12:48:34.522 |AppInfo  |Digit analysis: match(pi="2", fqcn="9110006",
cn="9110006",plv="5", pss="", TodFilteredPss="", dd="9110001",dac="1")
00019638.007 |12:48:34.522 |AppInfo  |Digit analysis: analysis results
00019638.008 |12:48:34.522 |AppInfo  ||PretransformCallingPartyNumber=9110006
|CallingPartyNumber=9110006
|DialingPartition=
|DialingPattern=9110001
|FullyQualifiedCalledPartyNumber=9110001
|DialingPatternRegularExpression=(9110001)
|DialingWhere=
|PatternType=Enterprise
|PotentialMatches=NoPotentialMatchesExist
|DialingSdlProcessId=(0,0,0)
|PretransformDigitString=9110001
|PretransformTagsList=SUBSCRIBER
|PretransformPositionalMatchList=9110001
|CollectedDigits=9110001

### CUCM determines call must stay on same node and go to LineControl
(PID=LineControl(2,100,174,19))

00019640.001 |12:48:34.522 |AppInfo  |Digit analysis: wait_DmPidRes- Partition=[]
Pattern=[9110001] Where=[],cmDeviceType=[UserDevice], OutsideDialtone =[0], DeviceOverride=[0],
PID=LineControl(2,100,174,7),CI=[49613637],Sender=Cdcc(2,100,219,1)

### CUCM extends the call to the called phone

00019657.003 |12:48:34.560 |AppInfo  |StationD:    (0000007) DEBUG whatToDo: line=1 calls=0
limit=4, busy=2. GCI=(2, 7001), cm_PL=(5, 0).
00019657.004 |12:48:34.560 |AppInfo  |StationD:    (0000007) DEBUG  whatToDo: busy trigger not
hit... send to open appearance
00019657.005 |12:48:34.560 |AppInfo  |preFilterCapCount =[11], preFilterCaps :: (Cap)= (25) (6)
(4) (2) (7) (8) (15) (16) (11) (12) (257) Filtering Caps due to Service Parameter Configuration
postFilterCapCount =[8], postFilterCaps :: (Cap)= (25) (4) (2) (15) (16) (11) (12) (257)
00019657.006 |12:48:34.560 |AppInfo  |preFilterCapCount =[0], preFilterCaps :: (Cap)= Filtering
Caps due to Service Parameter Configuration postFilterCapCount =[0], postFilterCaps :: (Cap)=
00019657.007 |12:48:34.560 |Created  |                                       |
|StationCdpc(2,100,64,2)          |StationD(2,100,63,7)             |
|NumOfCurrentInstances: 2
00019657.008 |12:48:34.560 |AppInfo  |StationD:    (0000007) DEBUG- getLineRingSetting:
```

retVal=4.
00019657.009 |12:48:34.560 |AppInfo |StationD: (0000007) DEBUG- saveRinger for: ci=49613638, line=1, mode=2, cm_precedence=5, callPhase=5.
00019657.010 |12:48:34.560 |AppInfo |StationD: (0000007) DEBUG- saveRinger: ci=49613638, line=1, mode=2, cm_precedence=5, callPhase=5, modifier=0
00019657.011 |12:48:34.560 |AppInfo |StationD: (0000007) INFO sendCallAcceptReq: Try to send StationLineCallAccept to cdpc=2 .
00019657.012 |12:48:34.560 |AppInfo |StationD: (0000007) playRinger for: ci=49613638.
00019657.013 |12:48:34.560 |AppInfo |StationD: (0000007) DEBUG- getLineRingSetting: retVal=4.
00019657.014 |12:48:34.560 |AppInfo |StationD: (0000007) DEBUG- getLineRingSetting: retVal=4.
00019657.015 |12:48:34.560 |AppInfo |StationD: (0000007) DEBUG- getLineRingSetting: retVal=4.

The Called (recorded) phone goes off hook

00019709.001 |12:48:36.042 |AppInfo |StationD: (0000007) restart0_StationOffHook - INFO: CI=49613638 on line=1, SPKMode=0, alwaysPrimeLine=0, alwaysUsePrimeLineForVM=0, fid=9999, offHookTrigger=1.

CUCM Tells the calling phone to open the logical channel

00019773.001 |12:48:36.061 |AppInfo |StationD: (0000005) SEP0018195AA209 , star_MediaExchangeAgenaOpenLogicalChannel packetSize=20, codec=4, ci=49613637

CUCM Tells the called (recorded) to open the logical channel

00019776.001 |12:48:36.061 |AppInfo |StationD: (0000007) SEP001795BDD16B , star_MediaExchangeAgenaOpenLogicalChannel packetSize=20, codec=4, ci=49613638

CUCM Tells the calling phone to open the receive channel

00019784.002 |12:48:36.062 |AppInfo |StationD: (0000005) OpenReceiveChannel conferenceID=49613637 passThruPartyID=33554433 millisecondPacketSize=20 compressionType=4(Media_Payload_G711Ulaw64k) RFC2833PayloadType=0 qualifierIn=? sourceIpAddr=IpAddr.type:0 ipAddr:0x0e302021000000000000000000000000(14.48.32.33). myIP: IpAddr.type:0 ipv4Addr:0x0e30201c(14.48.32.28)

Codec locked due to recording on called (recorded) phone

00019785.003 |12:48:36.062 |AppInfo | StationCdpc: star_MediaExchangeAgenaQueryCapability - Device SEP001795BDD16B, codec locked due to recording, codecType=4

CUCM Tells the called (recorded) phone to open the receive channel

00019788.002 |12:48:36.062 |AppInfo |StationD: (0000007) OpenReceiveChannel conferenceID=49613638 passThruPartyID=33554434 millisecondPacketSize=20 compressionType=4(Media_Payload_G711Ulaw64k) RFC2833PayloadType=0 qualifierIn=? sourceIpAddr=IpAddr.type:0 ipAddr:0x0e30201c000000000000000000000000(14.48.32.28). myIP: IpAddr.type:0 ipv4Addr:0x0e302021(14.48.32.33)

CUCM allocates the BiB on the called (recorded) phone

00019830.000 |12:48:36.074 |SdlSig |MrmAllocateUcbResourceReq |waiting |MediaResourceManager(2,100,138,1) |Cc(2,100,220,1) |2,100,14,19.206^14.48.32.33^SEP001795BDD16B |[R:N-H:0,N:1,L:0,V:0,Z:0,D:0] CI=49613639 SsType=33554461 SsKey=1 BridgeType=0 MRGLPkid= NumStream=1 Bib=89cdb152-4ef2-4d60-9e6b-ab8c77c22618 BibTgCi=49613638 FeatId=159 PL=5 PLDmn=0 DeviceCapability=0 NumVideoCapable=0 requestDeviceType=0 requestDeviceLocale=64 forkingDevicePosition=2 playToneDir=3

BiB places it's first call to recording destination address (cn is calling number which is

the BiB cn="b00223906001" and it is dialing the recordingdestination dd="8675309")

00019889.001 |12:48:36.100 |AppInfo |Digit Analysis: star_DaReq: daReq.partitionSearchSpace(), filteredPartitionSearchSpaceString(), partitionSearchSpaceString()
00019889.002 |12:48:36.100 |AppInfo |Digit Analysis: star_DaReq: Matching Legacy Numeric, digits=8675309
00019889.003 |12:48:36.100 |AppInfo |Digit Analysis: getDaRes data: daRes.ssType=[0] Intercept DAMR.sstype=[0], TPcount=[0], DAMR.NotifyCount=[0], DaRes.NotifyCount=[0]
00019889.004 |12:48:36.100 |AppInfo |Digit Analysis: getDaRes - Remote Destination [8675309] isURI[0]
00019889.005 |12:48:36.100 |AppInfo |CMUtility routeCallThroughCTIRD: no matching RemDestDynamic record exists for remdest [8675309]
00019889.006 |12:48:36.100 |AppInfo |DbMobility: getMatchedRemDest starts: cnumber = 8675309
00019889.007 |12:48:36.100 |AppInfo |DbMobility: getMatchedRemDest: full match case
00019889.008 |12:48:36.100 |AppInfo |DbMobility SelectByDestination: no matching RemDestDynamic record exists for remdest [8675309]
00019889.009 |12:48:36.100 |AppInfo |DbMobility: can't find remdest 8675309 in map
00019889.010 |12:48:36.100 |AppInfo |Digit analysis: patternUsage=5
00019889.011 |12:48:36.100 |AppInfo |Digit analysis: match(pi="1", fqcn="", cn="b00223906001",plv="5", pss="E911_PT:Phones_PT:EMERGENCY_PT:INTERNAL_PT:INFORMACAST_PT", TodFilteredPss="E911_PT:Phones_PT:EMERGENCY_PT:INTERNAL_PT:INFORMACAST_PT", dd="8675309",dac="1")
00019889.012 |12:48:36.100 |AppInfo |Digit analysis: analysis results
00019889.013 |12:48:36.100 |AppInfo ||PretransformCallingPartyNumber=b00223906001
|CallingPartyNumber=b00223906001
|DialingPartition=
|DialingPattern=8675309
|FullyQualifiedCalledPartyNumber=8675309
|DialingPatternRegularExpression=(8675309)
|DialingWhere=
|PatternType=Enterprise
|PotentialMatches=NoPotentialMatchesExist
|DialingSdlProcessId=(0,0,0)
|PretransformDigitString=8675309
|PretransformTagsList=SUBSCRIBER
|PretransformPositionalMatchList=8675309
|CollectedDigits=8675309

Calling phone sends CUCM the ORC ACK

00019912.001 |12:48:36.139 |AppInfo |StationInit: (0000005) OpenReceiveChannelAck Status=0, IpAddr=IpAddr.type:0 ipAddr:0x0e30201c000000000000000000000000(14.48.32.28), Port=31678, PartyID=33554433

CUCM sends startMediaTransmission to the called (recorded) phone telling the phone to send RTP to the calling phone (14.48.32.28)

00019920.001 |12:48:36.139 |AppInfo |StationD: (0000007) startMediaTransmission conferenceID=49613638 passThruPartyID=33554434 remoteIpAddress=IpAddr.type:0 ipAddr:0x0e30201c000000000000000000000000(14.48.32.28) remotePortNumber=31678 milliSecondPacketSize=20 compressType=4(Media_Payload_G711Ulaw64k) RFC2833PayloadType=0 qualifierOut=?. myIP: IpAddr.type:0 ipv4Addr:0x0e302021(14.48.32.33)

Called (recorded) phone sends CUCM the ORC ACK

00019959.001 |12:48:36.145 |AppInfo |StationInit: (0000007) OpenReceiveChannelAck Status=0, IpAddr=IpAddr.type:0 ipAddr:0x0e302021000000000000000000000000(14.48.32.33), Port=28360, PartyID=33554434

CUCM sends startMediaTransmission to the calling phone telling the phone to send RTP to the called phone (14.48.32.33)

00019977.001 |12:48:36.146 |AppInfo |StationD: (0000005) startMediaTransmission

conferenceID=49613637 passThruPartyID=33554433 remoteIpAddress=IpAddr.type:0
ipAddr:0x0e302021000000000000000000000000(14.48.32.33) remotePortNumber=28360
milliSecondPacketSize=20 compressType=4(Media_Payload_G711Ulaw64k) RFC2833PayloadType=0
qualifierOut=?. myIP: IpAddr.type:0 ipv4Addr:0x0e30201c(14.48.32.28)

BiB places second call to recording destination address (cn is calling number which is the BiB cn="b00223906001" and it is dialing the recordingdestination dd="8675309")

Note that the BiB number stayed the same (b00223906001) and so did the recordingdestination number 00020002.001 |12:48:36.147 |AppInfo |Digit Analysis: star_DaReq: daReq.partitionSearchSpace(), filteredPartitionSearchSpaceString(), partitionSearchSpaceString() 00020002.002 |12:48:36.147 |AppInfo |Digit Analysis: star_DaReq: Matching Legacy Numeric, digits=8675309 00020002.003 |12:48:36.147 |AppInfo |Digit Analysis: getDaRes data: daRes.ssType=[0] Intercept DAMR.sstype=[0], TPcount=[0], DAMR.NotifyCount=[0], DaRes.NotifyCount=[0] 00020002.004 |12:48:36.147 |AppInfo |Digit Analysis: getDaRes - Remote Destination [8675309] isURI[0] 00020002.005 |12:48:36.147 |AppInfo |CMUtility routeCallThroughCTIRD: no matching RemDestDynamic record exists for remdest [8675309] 00020002.006 |12:48:36.147 |AppInfo |DbMobility: getMatchedRemDest starts: cnumber = 8675309 00020002.007 |12:48:36.147 |AppInfo |DbMobility: getMatchedRemDest: full match case 00020002.008 |12:48:36.147 |AppInfo |DbMobility SelectByDestination: no matching RemDestDynamic record exists for remdest [8675309] 00020002.009 |12:48:36.147 |AppInfo |DbMobility: can't find remdest 8675309 in map 00020002.010 |12:48:36.147 |AppInfo |Digit analysis: patternUsage=5 00020002.011 |12:48:36.147 |AppInfo |Digit analysis: match(pi="1", fqcn="", cn="b00223906001",plv="5", pss="E911_PT:Phones_PT:EMERGENCY_PT:INTERNAL_PT:INFORMACAST_PT", TodFilteredPss="E911_PT:Phones_PT:EMERGENCY_PT:INTERNAL_PT:INFORMACAST_PT", dd="8675309",dac="1") 00020002.012 |12:48:36.147 |AppInfo |Digit analysis: analysis results 00020002.013 |12:48:36.147 |AppInfo ||PretransformCallingPartyNumber=b00223906001 |CallingPartyNumber=b00223906001 |DialingPartition= |DialingPattern=8675309 |FullyQualifiedCalledPartyNumber=8675309 |DialingPatternRegularExpression=(8675309) |DialingWhere= |PatternType=Enterprise |PotentialMatches=NoPotentialMatchesExist |DialingSdlProcessId=(0,0,0) |PretransformDigitString=8675309 |PretransformTagsList=SUBSCRIBER |PretransformPositionalMatchList=8675309 |CollectedDigits=8675309 |UnconsumedDigits= |TagsList=SUBSCRIBER |PositionalMatchList=8675309

CUCM sends INVITE #1 to configured recording server (14.48.32.170)

00020086.001 |12:48:36.156 |AppInfo |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message to 14.48.32.170:[5060]:
[901,NET]
INVITE sip:8675309@14.48.32.170:5060 SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK4f2a857d3d
From: <sip:9110001@14.48.32.90;x-nearend;x-refci=49613638;x-nearendclusterid=glenscucm10-5;x-nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=49613637;x-farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-farendaddr=9110006>;tag=351~713e2333-4032-45f1-b1f5-e33cf471acec-49613642
To: <sip:8675309@14.48.32.170>
Date: Tue, 14 Oct 2014 16:48:36 GMT
Call-ID: ef7acf80-43d153e4-50-5a20300e@14.48.32.90
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM10.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Call-Info: ;method="NOTIFY;Event=telephone-event;Duration=500"
Cisco-Guid: 4017803136-0000065536-0000000001-1512058894
Session-Expires: 1800
P-Asserted-Identity: <sip:9110001@14.48.32.90>
Remote-Party-ID: <sip:9110001@14.48.32.90>;party=calling;screen=yes;privacy=off
Contact: <sip:9110001@14.48.32.90:5060>;isFocus
Max-Forwards: 70

```
Content-Length: 0
```

CUCM sends INVITE #2 to configured recording server (14.48.32.170)

```
00020088.001 |12:48:36.157 |AppInfo  |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message
to 14.48.32.170:[5060]:
[902,NET]
INVITE sip:8675309@14.48.32.170:5060 SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK5014378d0b
From: <sip:9110001@14.48.32.90;x-farend;x-refci=49613638;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=49613637;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=352~713e2333-4032-45f1-b1f5-e33cf471acec-49613645
To: <sip:8675309@14.48.32.170>
Date: Tue, 14 Oct 2014 16:48:36 GMT
Call-ID: ef7acf80-43d153e4-51-5a20300e@14.48.32.90
Supported: timer,resource-priority,replaces
Min-SE:  1800
User-Agent: Cisco-CUCM10.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Call-Info: ;method="NOTIFY;Event=telephone-event;Duration=500"
Cisco-Guid: 4017803136-0000065536-0000000002-1512058894
Session-Expires:  1800
P-Asserted-Identity: <sip:9110001@14.48.32.90>
Remote-Party-ID: <sip:9110001@14.48.32.90>;party=calling;screen=yes;privacy=off
Contact: <sip:9110001@14.48.32.90:5060>;isFocus
Max-Forwards: 70
Content-Length: 0
```

CUCM receives a 200 OK from recording server for INVITE #1

```
00020089.001 |12:48:36.161 |AppInfo  |//SIP/SIPUdp/wait_SdlDataInd: Incoming SIP UDP message
size 731 from 14.48.32.170:[5060]:
[903,NET]
SIP/2.0 200 OK
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK4f2a857d3d
From: <sip:9110001@14.48.32.90;x-nearend;x-refci=49613638;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=49613637;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=351~713e2333-4032-45f1-b1f5-e33cf471acec-49613642
To: <sip:8675309@14.48.32.170>;tag=1
Call-ID: ef7acf80-43d153e4-50-5a20300e@14.48.32.90
CSeq: 101 INVITE
Contact: <sip:14.48.32.170:5060;transport=udp>
Content-Type: application/sdp
Content-Length:   135

v=0
o=user1 53655765 2353687637 IN IP4 14.48.32.170
s=-
c=IN IP4 14.48.32.170
t=0 0
m=audio 6000 RTP/AVP 0
a=rtpmap:0 PCMU/8000
```

CUCM receives a 200 OK from recording server for INVITE #2

```
00020092.001 |12:48:36.161 |AppInfo  |//SIP/SIPUdp/wait_SdlDataInd: Incoming SIP UDP message
```

size 730 from 14.48.32.170:[5060]:
[905,NET]
SIP/2.0 200 OK
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK5014378d0b
From: <sip:9110001@14.48.32.90;x-farend;x-refci=49613638;x-nearendclusterid=glenscucm10-5;x-nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=49613637;x-farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-farendaddr=9110006>;tag=352~713e2333-4032-45f1-b1f5-e33cf471acec-49613645
To: <sip:8675309@14.48.32.170>;tag=2
Call-ID: ef7acf80-43d153e4-51-5a20300e@14.48.32.90
CSeq: 101 INVITE
Contact: <sip:14.48.32.170:5060;transport=udp>
Content-Type: application/sdp
Content-Length: 135

v=0
o=user1 53655765 2353687637 IN IP4 14.48.32.170
s=-
c=IN IP4 14.48.32.170
t=0 0
m=audio 6000 RTP/AVP 0
a=rtpmap:0 PCMU/8000

Region information for connecting audio for recording call, both appear to support G.711.
Note that the bandwidth capabilities printed is kbps=8 meaning the region relationship between the two regions is limitted to codecs using 8kbps or less. 00020160.005 |12:48:36.190 |AppInfo |DET-RegionsServer::matchCapabilities-- savedOption=3, PREF_NONE, regionA=(null) regionB=(null) latentCaps(A=0, B=0) kbps=8, capACount=1, capBCount=1 00020160.006 |12:48:36.190 |AppInfo |DET-MediaManager-(2)::checkAudioPassThru, param(bPostMTPAllocation=0,chkTrp=1), capCount(1,1), mtpPT=1, aPT=2 00020160.007 |12:48:36.190 |AppInfo |DET-MediaManager-(2)::preCheckCapabilities, **region1=Default**, **region2=RecordingTrunk**, **Pty1** capCount=1 (Cap,ptime)= **(4,20)**, **Pty2** capCount=1 (Cap,ptime)= **(4,20)**
00020160.008 |12:48:36.190 |AppInfo |DET-RegionsServer::matchCapabilities-- savedOption=0, PREF_NONE, regionA=(null) regionB=(null) latentCaps(A=0, B=0) **kbps=8**, capACount=1, capBCount=1

CUCM determines 2 transcoders are required and attempts to allocate

00020160.011 |12:48:36.190 |AppInfo |DET-MediaManager-(2)::preCheckCapabilities, **caps mismatch! Xcoder Reqd. kbps(8)**, filtered A[capCount=0 (Cap,ptime)=], B[capCount=0 (Cap,ptime)=] allowMTP=0 **numXcoderRequired=2** xcodingSide=0

CUCM determines 2 transcoders are required and attempts to allocate

00020160.011 |12:48:36.190 |AppInfo |DET-MediaManager-(2)::preCheckCapabilities, **caps mismatch! Xcoder Reqd. kbps(8)**, filtered A[capCount=0 (Cap,ptime)=], B[capCount=0 (Cap,ptime)=] allowMTP=0 **numXcoderRequired=2** xcodingSide=0

CUCM sendt the ACK and BYE to the recording server in response to INVITE #1
Note the Q.850 cause code

00020210.001 |12:48:36.216 |AppInfo |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message to 14.48.32.170:[5060]:
[906,NET]
ACK sip:14.48.32.170:5060;transport=UDP SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK51257b2b47
From: <sip:9110001@14.48.32.90;x-nearend;x-refci=49613638;x-nearendclusterid=glenscucm10-5;x-nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=49613637;x-farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-farendaddr=9110006>;tag=351~713e2333-4032-45f1-b1f5-e33cf471acec-49613642
To: <sip:8675309@14.48.32.170>;tag=1
Date: Tue, 14 Oct 2014 16:48:36 GMT
Call-ID: ef7acf80-43d153e4-50-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5

```
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Length: 0


00020211.001 |12:48:36.216 |AppInfo |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message to
14.48.32.170:[5060]:
[907,NET]
BYE sip:14.48.32.170:5060;transport=UDP SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK526f3d2afa
From: <sip:9110001@14.48.32.90;x-nearend;x-refci=49613638;x-nearendclusterid=GlensCUCM10-5;x-
nearenddevice=SEP001795BDD16B;x-nearendaddr=9110001;x-farendrefci=49613637;x-
farendclusterid=GlensCUCM10-5;x-farenddevice=SEP0018195AA209;x-
farendaddr=9110006>;tag=351~713e2333-4032-45f1-b1f5-e33cf471acec-49613642
To: <sip:8675309@14.48.32.170>;tag=1
Date: Tue, 14 Oct 2014 16:48:36 GMT
Call-ID: ef7acf80-43d153e4-50-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
P-Asserted-Identity: <sip:9110001@14.48.32.90>
CSeq: 102 BYE
Reason: Q.850;cause=47
Content-Length: 0

### CUCM sendt the ACK and BYE to the recording server in response to INVITE #2
Note the Q.850 cuase code in the BYE

00020248.001 |12:48:36.218 |AppInfo  |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message
to 14.48.32.170:[5060]:
[908,NET]
ACK sip:14.48.32.170:5060;transport=UDP SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK531df920a6
From: <sip:9110001@14.48.32.90;x-farend;x-refci=49613638;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=49613637;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=352~713e2333-4032-45f1-b1f5-e33cf471acec-49613645
To: <sip:8675309@14.48.32.170>;tag=2
Date: Tue, 14 Oct 2014 16:48:36 GMT
Call-ID: ef7acf80-43d153e4-51-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Length: 0

00020249.001 |12:48:36.218 |AppInfo |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message to
14.48.32.170:[5060]: [909,NET] BYE sip:14.48.32.170:5060;transport=UDP SIP/2.0 Via: SIP/2.0/UDP
14.48.32.90:5060;branch=z9hG4bK5462aba807 From: <sip:9110001@14.48.32.90;x-farend;x-
refci=49613638;x-nearendclusterid=glenscucm10-5;x-nearenddevice=sep001795bdd16b;x-
nearendaddr=9110001;x-farendrefci=49613637;x-farendclusterid=glenscucm10-5;x-
farenddevice=sep0018195aa209;x-farendaddr=9110006>;tag=352~713e2333-4032-45f1-b1f5-e33cf471acec-
49613645 To: <sip:8675309@14.48.32.170>;tag=2 Date: Tue, 14 Oct 2014 16:48:36 GMT Call-ID:
ef7acf80-43d153e4-51-5a20300e@14.48.32.90 User-Agent: Cisco-CUCM10.5 Max-Forwards: 70 P-
Asserted-Identity: <sip:9110001@14.48.32.90> CSeq: 102 BYE Reason: Q.850;cause=47
Content-Length: 0
```

Misconfiguration que incluye los problemas CSS y pinta

Los comandos aquí permiten que revisen a la mayoría de las configuraciones de la grabación rápidamente con solamente conocer la dirección MAC de un teléfono que no esté registrando las llamadas. Substituya simplemente a la parte del comando **MAC_of_Phone** por la dirección MAC real del teléfono según lo en los ejemplos vistos aquí.

Esto le da el DN (todos si hay más de uno) para el MAC que usted está buscando encendido, el MAC del teléfono apenas para la confirmación, la configuración del BABERO, la configuración de la aislamiento, el tipo de grabación (refiérase a los valores enumerados a los ejemplos del laboratorio), el perfil de la grabación funcionando por el teléfono, el nombre de los espacios de búsqueda de la llamada de la grabación (CSS), el destino de la grabación para ese perfil de la grabación, y la división que registrando el destino está asociado a basado en el MAC le está buscando encendido:

```
### CUCM sendt the ACK and BYE to the recording server in response to INVITE #2
Note the Q.850 cuase code in the BYE

00020248.001 |12:48:36.218 |AppInfo  |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message
to 14.48.32.170:[5060]:
[908,NET]
ACK sip:14.48.32.170:5060;transport=UDP SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK531df920a6
From: <sip:9110001@14.48.32.90;x-farend;x-refci=49613638;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=49613637;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=352~713e2333-4032-45f1-b1f5-e33cf471acec-49613645
To: <sip:8675309@14.48.32.170>;tag=2
Date: Tue, 14 Oct 2014 16:48:36 GMT
Call-ID: ef7acf80-43d153e4-51-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Length: 0

00020249.001 |12:48:36.218 |AppInfo |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message to
14.48.32.170:[5060]: [909,NET] BYE sip:14.48.32.170:5060;transport=UDP SIP/2.0 Via: SIP/2.0/UDP
14.48.32.90:5060;branch=z9hG4bK5462aba807 From: <sip:9110001@14.48.32.90;x-farend;x-
refci=49613638;x-nearendclusterid=glenscucm10-5;x-nearenddevice=sep001795bdd16b;x-
nearendaddr=9110001;x-farendrefci=49613637;x-farendclusterid=glenscucm10-5;x-
farenddevice=sep0018195aa209;x-farendaddr=9110006>;tag=352~713e2333-4032-45f1-b1f5-e33cf471acec-
49613645 To: <sip:8675309@14.48.32.170>;tag=2 Date: Tue, 14 Oct 2014 16:48:36 GMT Call-ID:
ef7acf80-43d153e4-51-5a20300e@14.48.32.90 User-Agent: Cisco-CUCM10.5 Max-Forwards: 70 P-
Asserted-Identity: <sip:9110001@14.48.32.90> CSeq: 102 BYE Reason: Q.850;cause=47
Content-Length: 0
```

Esto le da la lista de divisiones que se asocien al CSS de registración en el perfil de la grabación que se asocia al MAC del teléfono que usted está buscando contra.


```
### CUCM sendt the ACK and BYE to the recording server in response to INVITE #2
Note the Q.850 cuase code in the BYE

00020248.001 |12:48:36.218 |AppInfo  |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message
to 14.48.32.170:[5060]:
[908,NET]
ACK sip:14.48.32.170:5060;transport=UDP SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK531df920a6
From: <sip:9110001@14.48.32.90;x-farend;x-refci=49613638;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=49613637;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=352~713e2333-4032-45f1-b1f5-e33cf471acec-49613645
To: <sip:8675309@14.48.32.170>;tag=2
Date: Tue, 14 Oct 2014 16:48:36 GMT
Call-ID: ef7acf80-43d153e4-51-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
```

```
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Length: 0

00020249.001 |12:48:36.218 |AppInfo |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message to
14.48.32.170:[5060]: [909,NET] BYE sip:14.48.32.170:5060;transport=UDP SIP/2.0 Via: SIP/2.0/UDP
14.48.32.90:5060;branch=z9hG4bK5462aba807 From: <sip:9110001@14.48.32.90;x-farend;x-
refci=49613638;x-nearendclusterid=glenscucm10-5;x-nearenddevice=sep001795bdd16b;x-
nearendaddr=9110001;x-farendrefci=49613637;x-farendclusterid=glenscucm10-5;x-
farenddevice=sep0018195aa209;x-farendaddr=9110006>;tag=352~713e2333-4032-45f1-b1f5-e33cf471acec-
49613645 To: <sip:8675309@14.48.32.170>;tag=2 Date: Tue, 14 Oct 2014 16:48:36 GMT Call-ID:
ef7acf80-43d153e4-51-5a20300e@14.48.32.90 User-Agent: Cisco-CUCM10.5 Max-Forwards: 70 P-
Asserted-Identity: <sip:9110001@14.48.32.90> CSeq: 102 BYE Reason: Q.850;cause=47
Content-Length: 0
```

Aquí están los ejemplos de la salida del laboratorio para un teléfono con la dirección MAC **SEPC80084AA8743**:

En este comando, usted puede ver el teléfono tiene solamente un DN en él cuál es **2003,** nosotros también ve que el BABERO está prendido, la aislamiento está apagada, el tipo de grabación es automático, la fuente preferida es teléfono, el perfil de la grabación es **perfil de la grabación de la prueba**, la grabación que llama el espacio de búsqueda es **INTERNAL_CSS**, el modelo de la ruta para las llamadas registradas es **8675309** y ese modelo se asocia a la división **INTERNAL_PT**.

```
### CUCM sendt the ACK and BYE to the recording server in response to INVITE #2
Note the Q.850 cuase code in the BYE

00020248.001 |12:48:36.218 |AppInfo  |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message
to 14.48.32.170:[5060]:
[908,NET]
ACK sip:14.48.32.170:5060;transport=UDP SIP/2.0
Via: SIP/2.0/UDP 14.48.32.90:5060;branch=z9hG4bK531df920a6
From: <sip:9110001@14.48.32.90;x-farend;x-refci=49613638;x-nearendclusterid=glenscucm10-5;x-
nearenddevice=sep001795bdd16b;x-nearendaddr=9110001;x-farendrefci=49613637;x-
farendclusterid=glenscucm10-5;x-farenddevice=sep0018195aa209;x-
farendaddr=9110006>;tag=352~713e2333-4032-45f1-b1f5-e33cf471acec-49613645
To: <sip:8675309@14.48.32.170>;tag=2
Date: Tue, 14 Oct 2014 16:48:36 GMT
Call-ID: ef7acf80-43d153e4-51-5a20300e@14.48.32.90
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Length: 0

00020249.001 |12:48:36.218 |AppInfo |//SIP/SIPUdp/wait_SdlSPISignal: Outgoing SIP UDP message to
14.48.32.170:[5060]: [909,NET] BYE sip:14.48.32.170:5060;transport=UDP SIP/2.0 Via: SIP/2.0/UDP
14.48.32.90:5060;branch=z9hG4bK5462aba807 From: <sip:9110001@14.48.32.90;x-farend;x-
refci=49613638;x-nearendclusterid=glenscucm10-5;x-nearenddevice=sep001795bdd16b;x-
nearendaddr=9110001;x-farendrefci=49613637;x-farendclusterid=glenscucm10-5;x-
farenddevice=sep0018195aa209;x-farendaddr=9110006>;tag=352~713e2333-4032-45f1-b1f5-e33cf471acec-
49613645 To: <sip:8675309@14.48.32.170>;tag=2 Date: Tue, 14 Oct 2014 16:48:36 GMT Call-ID:
ef7acf80-43d153e4-51-5a20300e@14.48.32.90 User-Agent: Cisco-CUCM10.5 Max-Forwards: 70 P-
Asserted-Identity: <sip:9110001@14.48.32.90> CSeq: 102 BYE Reason: Q.850;cause=47
Content-Length: 0
```

Con la salida de este comando, usted puede controlar todas las divisiones del CSS de registración y del perfil de la grabación asociado al teléfono del interés. Usted puede ver aquí que la división **INTERNAL_PT** es una de las divisiones asociadas al espacio de búsqueda de llamada **INTERNAL_CSS**. Esto significa que no debe haber problemas con el BABERO del teléfono que puede llamar el modelo de la ruta de la grabación.

```
run sql select css.name as name_of_the_recording_css, rp.name as partitions_in_recording_css,
csm.sortorder from callingsearchspace as css inner join callingsearchspacemember as csm on
csm.fkcallingsearchspace = css.pkid inner join routepartition as rp on csm.fkroutepartition =
rp.pkid inner join recordingprofile as rcrdpro on rcrdpro.fkcallingsearchspace_callrecording =
css.pkid inner join devicenumplanmap as devnumplanmap on rcrdpro.pkid =
devnumplanmap.fkrecordingprofile inner join device as dev on devnumplanmap.fkdevice = dev.pkid
where css.pkid = rcrdpro.fkcallingsearchspace_callrecording and dev.name='SEPC80084AA8743'
name_of_the_recording_css partitions_in_recording_css sortorder
========================= =========================== =========
INTERNAL_CSS              E911_PT                     1
INTERNAL_CSS              Phones_PT                   2
INTERNAL_CSS              EMERGENCY_PT                3
INTERNAL_CSS              INTERNAL_PT                 4
INTERNAL_CSS              INFORMACAST_PT              5
```