排除从思科IP电话到媒体感知的媒体分流故障

目录

简介

本文档介绍从Cisco IP电话分流媒体以在MediaSense服务器上记录呼叫的故障排除步骤。

先决条件

要求

Cisco 建议您了解以下主题：

- 思科统一通信管理器 (CUCM)
- 思科 MediaSense

使用的组件

本文档中的信息基于以下软件和硬件版本：

- CUCM版本10.5.2.10000-5
- 思科MediaSense 10.0.1.10000-95

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您使用的是真实网络，请确保您已经了解所有命令的潜在影响。

背景信息

Cisco MediaSense是一个基于网络的平台，使用会话初始协议(SIP)为网络中的设备提供语音和视频媒体录制功能。 MediaSense完全集成到思科的统一通信架构中，可自动捕获并存储每个IP语音(VoIP)会话，并将其存储在正确配置的CUCM设备上。

1. MediaSense接受以下格式的音频编解码器：
   - g.711 µLaw和aLaw
   - g.722
   - g.729、g.729a、g.729b
   - 高级音频编码 — 低延迟(AAC-LD)，也称为 MPEG音频第4层 — 低开销MPEG-4音频传输复用(MP4A/LATM)
2. H.264编码中的MediaSense视频

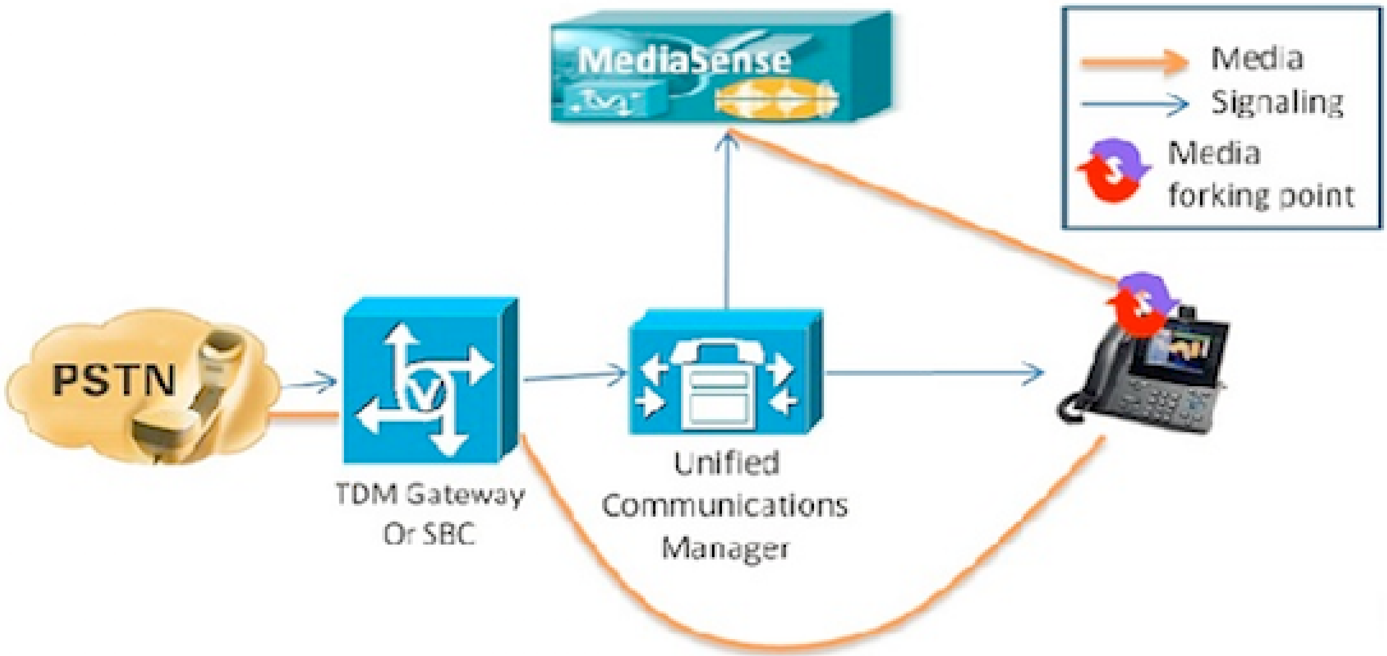
场景

1. 基本统一通信管理器部署 — 从内部到外部
2. 基本统一通信管理器部署 — 内部到内部

从MediaSense的角度来看，两种场景实际上没有区别。

在这两种情况下，由电话分组的媒体都被发送到记录设备，在该设备中分组的流被捕获。他们之所以能在这里脱颖而出，是因为他们在解决方案级别的行为存在显着差异。

如本图所示，Unified Communications Manager部署 — 从内部到外部。

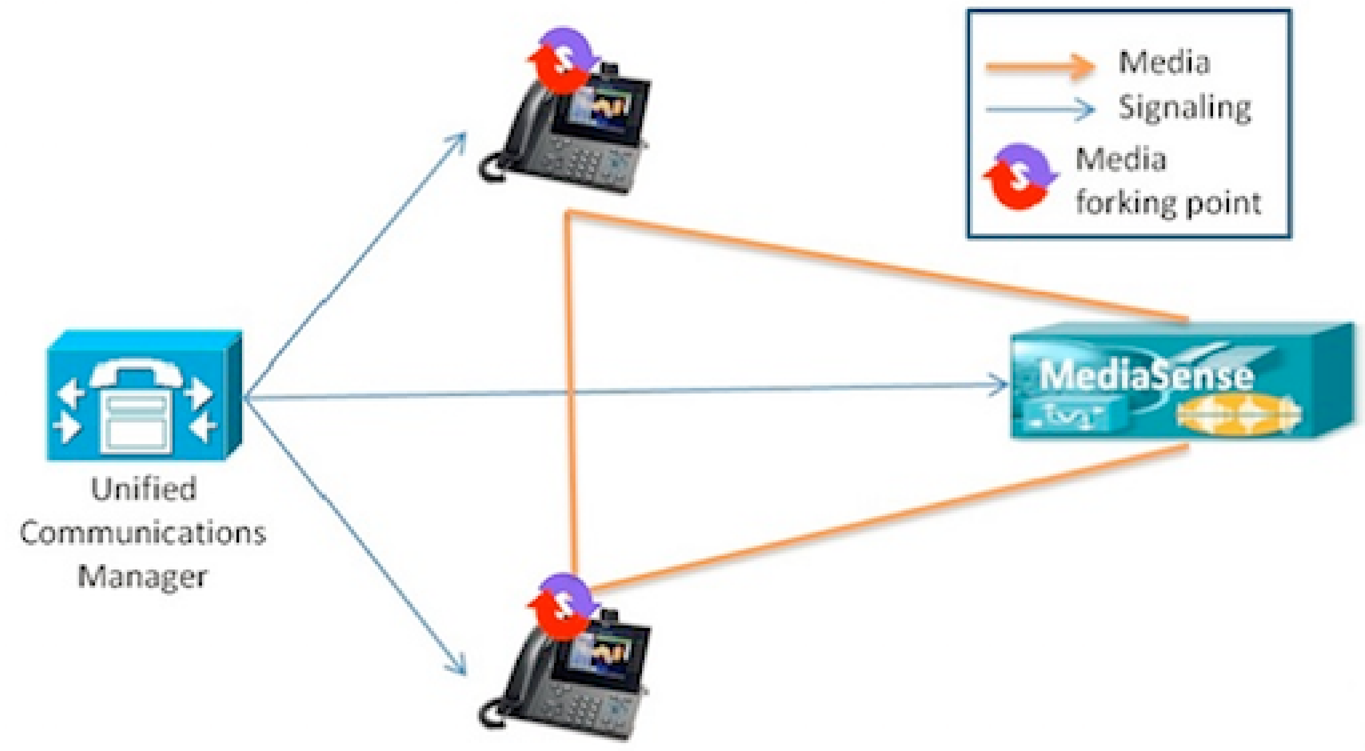


这显示了基本的Unified Communications Manager部署，其中记录了与外部呼叫方的思科IP电话呼叫。这适用于入站和出站呼叫，只要内部电话配置了适当的录制配置文件。

从信令角度建立连接后，媒体会直接从分机电话流到录制服务器。

如果呼叫从此电话转移，则录制会话将结束。仅当接听呼叫的电话配置为录制时，才会捕获呼叫的下一段。

如本图所示，Unified Communications Manager部署 — 内部到内部。



这显示了基本的Unified Communications Manager部署，其中呼叫在企业内的内部用户之间。必须将其中一部电话配置为录制。如果两部电话都配置为录制，则将捕获两个单独的录制会话。

故障排除

本部分提供了可用于对配置进行故障排除的信息。

步骤1：MediaSenseCUCM

CUCM

- 应用用户(AXL)中的受控设备和权限信息。
- 记录配置文件和目标地址
- 指向MediaSense的SIP中继。
- 路由模式

MediaSense

在系统安装后，可以在MediaSense**命令行上使用show tech call_control**_service命令来验证基本配置。

此命令显示有关在系统上运行的Cisco MediaSense呼叫控制服务的信息。

Cisco MediaSense呼叫控制服务应运行以便此命令成功执行。

输出中捕获的系统信息。

```
 admin:show tech call_control_service

<html> <head> <title>mediasense</title> </head> <body> <pre>
```

Core: ver=10.0.1

```
 FCS, op=SHORT
Started at Mon Jul 13 10:55:53 PDT 2015
Report at Tue Jul 21 02:05:26 PDT 2015
Running at mediasense, processors=6, pId=28270
framework: state=In Service; {AMS_ADAPTER=
```

IN_SERVICE

```
, SIP_ADAPTER=
```

IN_SERVICE

```
, RECORDING_ADAPTER=
```

IN_SERVICE

```
}
logLevel=DEBUG, traceMask=0x307, DEBUG traceMask=0x100

System Info:
Memory: used=46.509 MB(13.671 MB), alloc=790.458 MB(0.0 MB)
CPU: avrLoad=0.37, procTime=00:10:18
Threads=176, peakThreads=224
```

在show tech call_control_service**输出中记录会话**信息。

```
SessionManagerImpl: size=0
Recording Sessions:
```

started=17

,

completed=17

```
 (100.0000%), errors=0, processing=0, maxProcessing=1, meanTime=38.310 sec, stDev=76.242 sec,
maxTime=00:05:16, lastTime=38291 mSec
Recording Setup Time:
```

started=17

,

completed=17

```
 (100.0000%), errors=0, processing=0, maxProcessing=1, meanTime=201 mSec, stDev=34 mSec,
maxTime=308 mSec, lastTime=142 mSec
```

show tech call_control_service输**出中的SIP适配器**信息。

```
Sip Adapter:
LocalAddress=
```

10.106.122.178

```
:5060; RemoteAddresses [sip:
```

10.106.122.174

```
:
```

5060

```
 sip:
```

10.106.122.175:5060

```
 ], controlTransport=tcp
based on Cisco Caffeine SIP Stack,
```

version=3.1.3.502

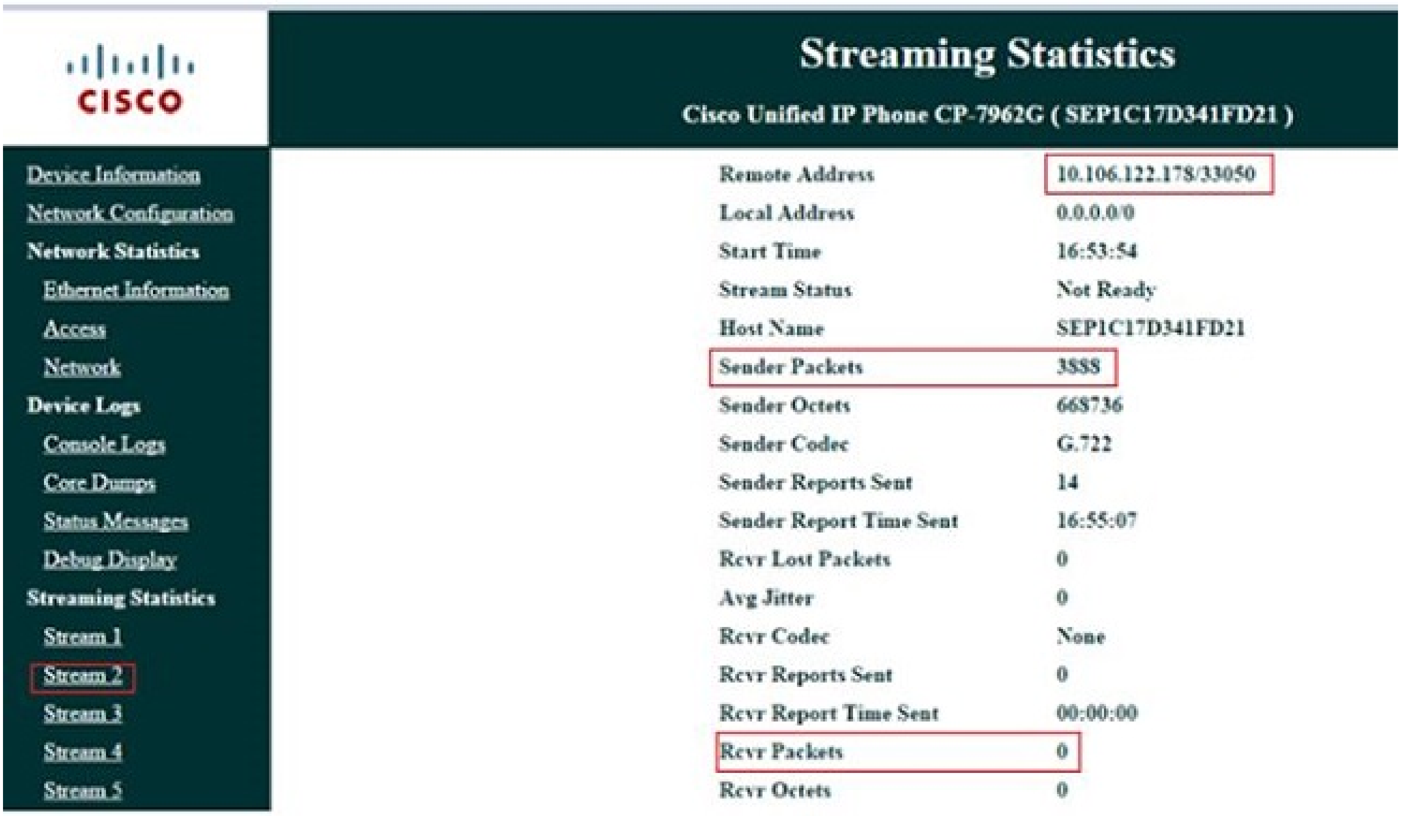
```
, nonBlockingTCP=true, closeConnectionOnTimeout=false
state=AcceptCalls, blockingMode=NONE
SdpUtil: m=audio %d RTP/AVP 102 0 8 9 18, m=video %d RTP/AVP 97
Executor: activeCount=0, poolSize=0, largestPoolSize=2, queueSize=0
```

提示：要设置呼叫记录，请参阅

步骤2.检查电话是否是流媒体到MediaSense服务器。

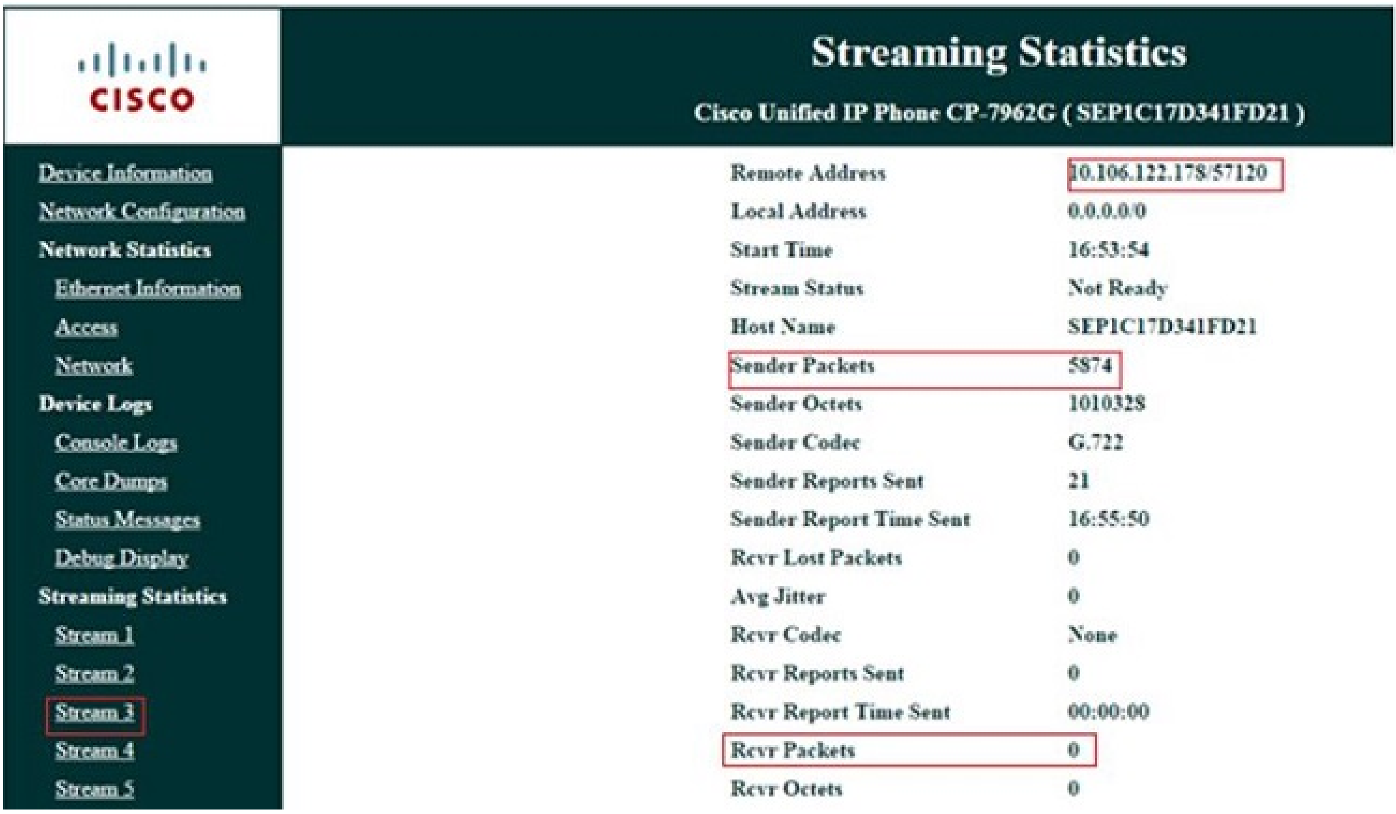
流1将是外部呼叫方的呼叫。流2将包含有关对MediaSense服务器的分组呼叫的信息。对于已分支的呼叫，接收的数据包始终保持零。

如此图所示，近端媒体流传输到MediaSense。



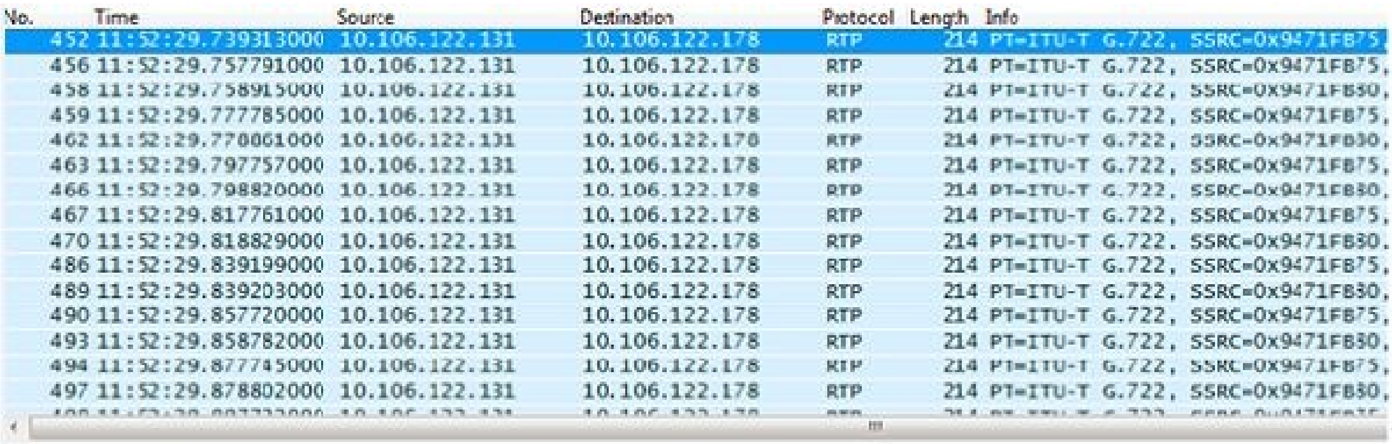
远端媒体流到MediaSense

如此图所示，流1中接收的远端媒体流信息在流3中分类。



您可以在电话上执行数据包捕获来验证它。

如图所示，电话PCap。



提示：请参阅从IP电话收集数据包捕获

步骤3.验证CUCM和MediaSense上的呼叫信令。

此处的示例包含从分机为4011的SIP电话到分机为4009的SCCP电话的IP呼叫。录制目的号码是7878。

CUCM日志分析

从SIP电话发送的INVITE到CUCM。

```
 06053008.002 |08:39:47.013 |AppInfo  |SIPTcp - wait_SdlReadRsp: Incoming SIP TCP message from
10.106.122.153 on port 53979 index 44 with 2126 bytes:
[50171,NET]
INVITE sip:4009@10.106.122.174;user=phone SIP/2.0
Via: SIP/2.0/TCP 10.106.122.153:53979;branch=z9hG4bK22e1618f
From: "4011" <sip:4011@10.106.122.174>;tag=203a0782d99f04115d77007a-7abfc08c
To: <sip:4009@10.106.122.174>
Call-ID: 203a0782-d99f000c-57711fea-6ba95503@10.106.122.153
Max-Forwards: 70
Date: Thu, 16 Jul 2015 15:39:46 GMT
CSeq: 101 INVITE


User-Agent: Cisco-CP8945/9.4.2


Contact: <sip:48a499a0-f78e-4baa-a287-5c6eeb0f2fe7@10.106.122.153:53979;transport=tcp>;video
Expires: 180
Accept: application/sdp
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO
Remote-Party-ID: "4011" <sip:4011@10.106.122.174>;party=calling;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
Recv-Info: conference
Recv-Info: x-cisco-conference
Content-Length: 986
Content-Type: application/sdp
Content-Disposition: session;handling=optional
```

```
v=0
o=Cisco-SIPUA 15743 0 IN IP4 10.106.122.153
s=SIP Call
b=AS:2000
t=0 0
m=audio
```

16420

```
 RTP/AVP 102 9 0 8 116 18 101
c=IN IP4
```

10.106.122.153

```
a=trafficclass:conversational.audio.avconf.aq:admitted
a=rtpmap:102 L16/16000
a=rtpmap:9 G722/8000
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:116 iLBC/8000
a=fmtp:116 mode=20
a=rtpmap:18 G729/8000
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv
```

UserAgent是Cisco 8945 IP电话，向CUCM发送As。

当SCCP电话应答呼叫并建立会话时，CUCM将ACK发送到SIP电话。

```
06053236.001 |08:39:49.777 |AppInfo  |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to
10.106.122.153 on port 53979 index 44
[50174,NET]
SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.106.122.153:53979;branch=z9hG4bK22e1618f
From: "4011" <sip:4011@10.106.122.174>;tag=203a0782d99f04115d77007a-7abfc08c
To: <sip:4009@10.106.122.174>;tag=16789~78868996-a8aa-4784-b765-86098b176d95-32833193
Date: Thu, 16 Jul 2015 15:39:47 GMT
Call-ID: 203a0782-d99f000c-57711fea-6ba95503@10.106.122.153
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Supported: replaces
Server: Cisco-CUCM10.5
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-
7171; isVoip; call-instance= 1
Send-Info: conference, x-cisco-conference
Remote-Party-ID: <sip:4009@10.106.122.174>;party=called;screen=yes;privacy=off
Remote-Party-ID: <sip:4009@10.106.122.174;user=phone>;party=x-cisco-original-called;privacy=off
Contact: <sip:4009@10.106.122.174:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 435

v=0
o=CiscoSystemsCCM-SIP 16789 1 IN IP4 10.106.122.174
s=SIP Call
c=IN IP4
```

10.106.122.131

```
b=AS:64
t=0 0
m=audio
```

18840

```
 RTP/AVP 9 101
a=ptime:20
a=rtpmap:9 G722/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=trafficclass:conversational.audio.aq:admitted
```

电话按“录音”软键，指示用户调用录制功能。

```
06053271.001 |08:39:52.681 |AppInfo  |StationInit: (0000045) SoftKeyEvent
```

softKeyEvent=74(Record)

```
 lineInstance=1 callReference=32833194.
```

编解码器被锁定进行录制。

```
06053274.002 |08:39:52.681 |AppInfo  | StationCdpc: star_MediaExchangeAgenaQueryCapability -
Device SEP1C17D341FD21, codec locked due to recording,
```

codecType=6

已分配内置网桥(BiB)资源。

```
06053309.000 |08:39:52.682 |SdlSig   |AllocateBibResourceRes
|resource_rsvp                  |MediaResourceCdpc(1,100,139,52)
|BuiltInBridgeControl(1,100,239,6) |1,100,14,269032.3452^10.106.122.131^SEP1C17D341FD21 |[R:N-
H:0,N:0,L:0,V:0,Z:0,D:0]  CI=32833195 BridgeDn=
```

b00123906001

```
 Pid=100,1,63,45 SsType=16777245 SsKey=43 deviceCap=0
```

CUCM在BiB资源中拨号。

```
06053318.008 |08:39:52.683 |AppInfo  ||PretransformCallingPartyNumber=
|CallingPartyNumber=
|DialingPartition=
|DialingPattern=
```

b00123906001

```
|FullyQualifiedCalledPartyNumber=
```

b00123906001

然后BiB拨打至MediaSense录制号码7878。

```
06053358.013 |08:39:52.686 |AppInfo  ||PretransformCallingPartyNumber=b00123906001
|CallingPartyNumber=
```

b00123906001

```
|DialingPartition=
|DialingPattern=
```

7878

```
|FullyQualifiedCalledPartyNumber=
```

7878

INVITE将发送到MediaSense。

```
06053416.001 |08:39:52.690 |AppInfo  |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to
10.106.122.178 on port 5060 index 71
[50176,NET]
INVITE sip:7878@10.106.122.178:5060 SIP/2.0
Via: SIP/2.0/TCP 10.106.122.174:5060;branch=z9hG4bK14432e0a687
From: <sip:
```

4009

```
@10.106.122.174;x-nearend;x-refci=32833194;x-nearendclusterid=StandAloneCluster;x-
nearenddevice=SEP1C17D341FD21;x-nearendaddr=4009;x-farendrefci=32833193;x-
farendclusterid=StandAloneCluster;x-farenddevice=SEP203A0782D99F;x-
farendaddr=4011>;tag=16791~78868996-a8aa-4784-b765-86098b176d95-32833198
To: <sip:7878@10.106.122.178>
Date: Thu, 16 Jul 2015 15:39:52 GMT
Call-ID: e4fb9980-5a71d048-b0-ae7a6a0a@10.106.122.174
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: <sip:10.106.122.174:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
Cisco-Guid: 3841694080-0000065536-0000000071-2927258122
Session-Expires: 1800
P-Asserted-Identity: <sip:4009@10.106.122.174>
Remote-Party-ID: <sip:4009@10.106.122.174>;party=calling;screen=yes;privacy=off
Contact: <sip:4009@10.106.122.174:5060;transport=tcp>;isFocus
Max-Forwards: 70
Content-Length: 0
```

建立录制呼叫时，从MediaSense返回200 OK。

```
06053554.002 |08:39:52.831 |AppInfo  |SIPTcp - wait_SdlReadRsp: Incoming SIP TCP message from
10.106.122.178 on port 5060 index 71 with 1013 bytes:
[50181,NET]
SIP/2.0 200 Ok
Via: SIP/2.0/TCP 10.106.122.174:5060;branch=z9hG4bK14432e0a687
To: <sip:7878@10.106.122.178>;tag=ds606d34cb
From: <sip:4009@10.106.122.174;x-nearend;x-refci=32833194;x-
nearendclusterid=StandAloneCluster;x-nearenddevice=SEP1C17D341FD21;x-nearendaddr=4009;x-
farendrefci=32833193;x-farendclusterid=StandAloneCluster;x-farenddevice=SEP203A0782D99F;x-
farendaddr=4011>;tag=16791~78868996-a8aa-4784-b765-86098b176d95-32833198
Call-ID: e4fb9980-5a71d048-b0-ae7a6a0a@10.106.122.174
CSeq: 101 INVITE
Content-Length: 313
Contact: <sip:7878@10.106.122.178:5060;transport=tcp>
Content-Type: application/sdp
Allow: INVITE, BYE, CANCEL, ACK, NOTIFY, INFO, UPDATE
Server: MediaSense/10.x

v=0
o=CiscoORA 3197 1 IN IP4 10.106.122.178
s=SIP Call
c=IN IP4
```

10.106.122.178

```
t=0 0
m=audio
```

42120

```
 RTP/AVP 102 0 8 9 18
a=rtpmap:102 MP4A-LATM/90000
a=fmtp:102 profile-level-id=24;object=23;bitrate=64000
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:9 G722/8000
a=rtpmap:18 G729/8000
a=
```

recvonly

ACK到MediaSense。

```
 06053719.001 |08:39:52.842 |AppInfo  |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to
10.106.122.178 on port 5060 index 71
[50183,NET]
ACK sip:7878@10.106.122.178:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.106.122.174:5060;branch=z9hG4bK147605d100d
From: <sip:4009@10.106.122.174;x-nearend;x-refci=32833194;x-
nearendclusterid=StandAloneCluster;x-nearenddevice=SEP1C17D341FD21;x-nearendaddr=4009;x-
farendrefci=32833193;x-farendclusterid=StandAloneCluster;x-farenddevice=SEP203A0782D99F;x-
farendaddr=4011>;tag=16791~78868996-a8aa-4784-b765-86098b176d95-32833198
To: <sip:7878@10.106.122.178>;tag=ds606d34cb
Date: Thu, 16 Jul 2015 15:39:52 GMT
```

```
Call-ID: e4fb9980-5a71d048-b0-ae7a6a0a@10.106.122.174
User-Agent: Cisco-CUCM10.5
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 260

v=0
o=CiscoSystemsCCM-SIP 16791 1 IN IP4 10.106.122.174
s=SIP Call
c=IN IP4
```

10.106.122.131

```
b=TIAS:64000
b=CT:64
b=AS:64
t=0 0
m=audio
```

4000

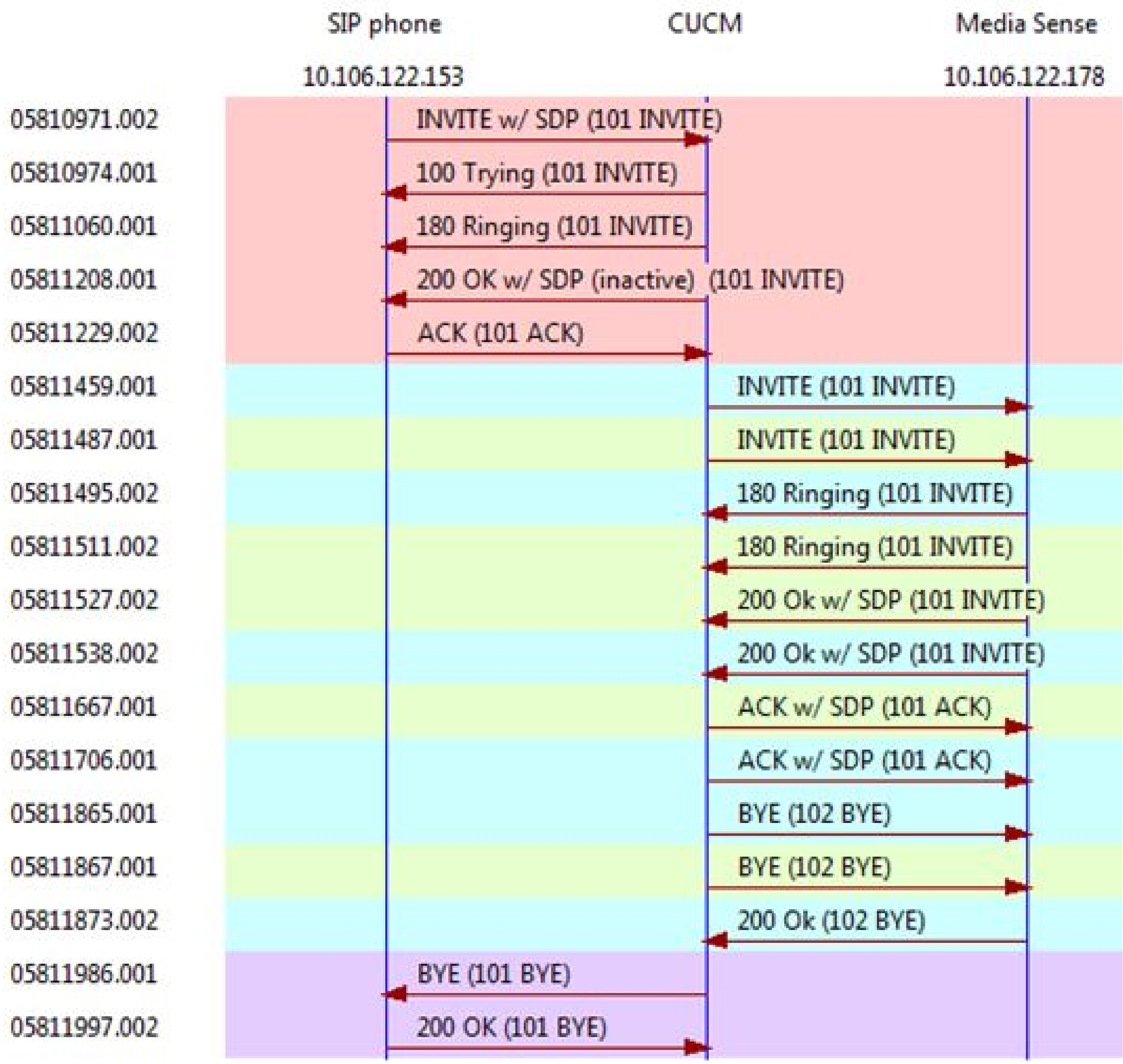
```
 RTP/AVP 9 101
a=ptime:20
a=rtpmap:9 G722/8000
a=
```

sendonly

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

对远端流重复相同的过程。在BiB中，CUCM拨号，BiB将拨打录制号码，并在CUCM和MediaSense之间建立SIP会话。

如图所示，信令图。



MediaSense日志分析

从CUCM邀请建立近端呼叫记录（来自SIP IP电话的音频）

```
0000010803: 10.106.122.178: Jul 16 2015 08:39:52.694 -0700: %CCBU_CALL_CONTROL-6-BORDER_MESSAGE:
{Thrd=Pool-sip-thread-25} %[message_string=process new Invitation: SipCall-25,
INBOUND_RECORDING, null, State=ALERTED: , processing=1
INVITE sip:7878@10.106.122.178:5060 SIP/2.0
Via: SIP/2.0/TCP 10.106.122.174:5060;branch=z9hG4bK14432e0a687
Max-Forwards: 69
To: <sip:7878@10.106.122.178>
From: <sip:4009@10.106.122.174;x-nearend;x-refci=32833194;x-
nearendclusterid=StandAloneCluster;x-nearenddevice=SEP1C17D341FD21;x-nearendaddr=4009;x-
farendrefci=32833193;x-farendclusterid=StandAloneCluster;x-farenddevice=SEP203A0782D99F;x-
farendaddr=4011>;tag=16791~78868996-a8aa-4784-b765-86098b176d95-32833198
Call-ID: e4fb9980-5a71d048-b0-ae7a6a0a@10.106.122.174
CSeq: 101 INVITE
Content-Length: 0
```

```
Date: Thu, 16 Jul 2015 15:39:52 GMT
Supported: timer,resource-priority,replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Min-SE: 1800
User-Agent: Cisco-CUCM10.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Expires: 180
Allow-Events: presence, kpml
Call-Info: <sip:10.106.122.174:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
Cisco-Guid: 3841694080-0000065536-0000000071-2927258122
Session-Expires: 1800
P-Asserted-Identity: <sip:4009@10.106.122.174>
Remote-Party-ID: <sip:4009@10.106.122.174>;party=calling;screen=yes;privacy=off
Contact: <sip:4009@10.106.122.174:5060;transport=tcp>;isfocus


 ]: Border Message
0000010804: 10.106.122.178: Jul 16 2015 08:39:52.694 -0700: %CCBU_CALL_CONTROL-7-TRACE:
{Thrd=Pool-sip-thread-25} -preProcessInvitation SipCall-25, INBOUND_RECORDING, null,
State=ALERTED: ciscoGuidHeader=Cisco-Guid: 3841694080-0000065536-0000000071-2927258122

0000010808: 10.106.122.178: Jul 16 2015 08:39:52.695 -0700: %CCBU_CALL_CONTROL-7-TRACE:
{Thrd=Pool-sip-thread-25} -postProcessInvitation SipCall-25, INBOUND_RECORDING, NEAR_END,
State=ALERTED: from=4009, displayName=null, xRefci=32833194,
```

endPointType=NEAR_END

```
, xNearDevice=SEP1C17D341FD21, ucmCiscoGuid=null, nearEndClusterId=StandAloneCluster, and
farEndClusterId=StandAloneCluster


0000010809: 10.106.122.178: Jul 16 2015 08:39:52.695 -0700: %CCBU_CALL_CONTROL-7-TRACE:
{Thrd=Pool-sip-thread-25} -postProcessInvitation SipCall-25, INBOUND_RECORDING, NEAR_END,
State=ALERTED: created MediaResources: [AUDIO-MediaResource-25: SipCall-25, INBOUND_RECORDING,
NEAR_END, State=ALERTED, weight=1, ip=
```

10.106.122.174

]

从CUCM邀请建立远端呼叫记录（来自SCCP IP电话的音频）。

```
 0000010818: 10.106.122.178: Jul 16 2015 08:39:52.700 -0700: %CCBU_CALL_CONTROL-6-
BORDER_MESSAGE: {Thrd=Pool-sip-thread-26} %[message_string=process new Invitation: SipCall-26,
INBOUND_RECORDING, null, State=ALERTED: , processing=2
INVITE sip:7878@10.106.122.178:5060 SIP/2.0
Via: SIP/2.0/TCP 10.106.122.174:5060;branch=z9hG4bK14578497f79
Max-Forwards: 69
To: <sip:7878@10.106.122.178>
From: <sip:4009@10.106.122.174;x-farend;x-refci=32833194;x-nearendclusterid=StandAloneCluster;x-
nearenddevice=SEP1C17D341FD21;x-nearendaddr=4009;x-farendrefci=32833193;x-
farendclusterid=StandAloneCluster;x-farenddevice=SEP203A0782D99F;x-
farendaddr=4011>;tag=16792~78868996-a8aa-4784-b765-86098b176d95-32833201
Call-ID: e4fb9980-5a71d048-b1-ae7a6a0a@10.106.122.174
CSeq: 101 INVITE
Content-Length: 0
Date: Thu, 16 Jul 2015 15:39:52 GMT
Supported: timer,resource-priority,replaces
Supported: X-cisco-srtp-fallback
```

```
Supported: Geolocation
Min-SE: 1800
User-Agent: Cisco-CUCM10.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Expires: 180
Allow-Events: presence, kpml
Call-Info: <sip:10.106.122.174:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
Cisco-Guid: 3841694080-0000065536-0000000072-2927258122
Session-Expires: 1800
P-Asserted-Identity: <sip:4009@10.106.122.174>
Remote-Party-ID: <sip:4009@10.106.122.174>;party=calling;screen=yes;privacy=off
Contact: <sip:4009@10.106.122.174:5060;transport=tcp>;isfocus



 ]: Border Message
0000010819: 10.106.122.178: Jul 16 2015 08:39:52.700 -0700: %CCBU_CALL_CONTROL-7-TRACE:
{Thrd=Pool-sip-thread-26} -preProcessInvitation SipCall-26, INBOUND_RECORDING, null,
State=ALERTED: ciscoGuidHeader=Cisco-Guid: 3841694080-0000065536-0000000072-2927258122

0000010823: 10.106.122.178: Jul 16 2015 08:39:52.701 -0700: %CCBU_CALL_CONTROL-7-TRACE:
{Thrd=Pool-sip-thread-26} -postProcessInvitation SipCall-26, INBOUND_RECORDING, NEAR_END,
State=ALERTED: from=4009, displayName=null, xRefci=32833194,
```

endPointType=FAR_END

```
, xNearDevice=null, ucmCiscoGuid=null, nearEndClusterId=StandAloneCluster, and
farEndClusterId=StandAloneCluster

0000010824: 10.106.122.178: Jul 16 2015 08:39:52.701 -0700: %CCBU_CALL_CONTROL-7-TRACE:
{Thrd=Pool-sip-thread-26} -postProcessInvitation SipCall-26, INBOUND_RECORDING, NEAR_END,
State=ALERTED: created MediaResources: [AUDIO-MediaResource-26: SipCall-26, INBOUND_RECORDING,
FAR_END, State=ALERTED, weight=1, ip=
```

10.106.122.174

在MediaSense上捕获近端和远端录制信息的SIP支路后，为呼叫创建的会话ID。

```
 0000010830: 10.106.122.178: Jul 16 2015 08:39:52.703 -0700: %CCBU_CALL_CONTROL-7-TRACE:
{Thrd=Pool-sip-thread-26} -Core: dispatch StartRecordingRequestEvent: SipRequestContextImpl-76,
type=Sip, Session:
```

d14e97859bff1

```
, INITIALIZING, call=SipCall-26, INBOUND_RECORDING, FAR_END, State=ALERTED, firstCall=SipCall-
25, INBOUND_RECORDING, NEAR_END, State=ALERTED, requestedAudioPorts=2, requestedVideoPorts=0,
append=false, audioSdp=null to Recording Adapter
```

200 OK和ACK，用于近端呼叫。

```
 0000010846: 10.106.122.178: Jul 16 2015 08:39:52.829 -0700: %CCBU_CALL_CONTROL-6-
BORDER_MESSAGE: {Thrd=Pool-capture-thread-38} %[message_string=SipCall-25, INBOUND_RECORDING,
NEAR_END, State=ALERTED send 200 Ok:
SIP/2.0 200 Ok
Via: SIP/2.0/TCP 10.106.122.174:5060;branch=z9hG4bK14432e0a687
To: <sip:7878@10.106.122.178>;tag=ds606d34cb
From: <sip:4009@10.106.122.174;x-nearend;x-refci=32833194;x-
nearendclusterid=StandAloneCluster;x-nearenddevice=SEP1C17D341FD21;x-nearendaddr=4009;x-
```

```
farendrefci=32833193;x-farendclusterid=StandAloneCluster;x-farenddevice=SEP203A0782D99F;x-
farendaddr=4011>;tag=16791~78868996-a8aa-4784-b765-86098b176d95-32833198
Call-ID: e4fb9980-5a71d048-b0-ae7a6a0a@10.106.122.174
CSeq: 101 INVITE
Content-Length: 313
Contact: <sip:7878@10.106.122.178:5060;transport=tcp>
Content-Type: application/sdp
Allow: INVITE, BYE, CANCEL, ACK, NOTIFY, INFO, UPDATE
Server: MediaSense/10.x

v=0
o=CiscoORA 3197 1 IN IP4 10.106.122.178
s=SIP Call
c=IN IP4
```

10.106.122.178

```
t=0 0
m=audio
```

42120

```
 RTP/AVP 102 0 8 9 18
a=rtpmap:102 MP4A-LATM/90000
a=fmtp:102 profile-level-id=24;object=23;bitrate=64000
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:9 G722/8000
a=rtpmap:18 G729/8000
a=
```

recvonly

```
 ACK sip:7878@10.106.122.178:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.106.122.174:5060;branch=z9hG4bK147605d100d
Max-Forwards: 69
To: <sip:7878@10.106.122.178>;tag=ds606d34cb
From: <sip:4009@10.106.122.174;x-nearend;x-refci=32833194;x-
nearendclusterid=StandAloneCluster;x-nearenddevice=SEP1C17D341FD21;x-nearendaddr=4009;x-
farendrefci=32833193;x-farendclusterid=StandAloneCluster;x-farenddevice=SEP203A0782D99F;x-
farendaddr=4011>;tag=16791~78868996-a8aa-4784-b765-86098b176d95-32833198
Call-ID: e4fb9980-5a71d048-b0-ae7a6a0a@10.106.122.174
CSeq: 101 ACK
Content-Length: 260
Date: Thu, 16 Jul 2015 15:39:52 GMT
User-Agent: Cisco-CUCM10.5
Allow-Events: presence, kpml
Content-Type: application/sdp

v=0
o=CiscoSystemsCCM-SIP 16791 1 IN IP4 10.106.122.174
s=SIP Call
c=IN IP4
```

10.106.122.131

```
b=TIAS:64000
```

```
b=CT:64
b=AS:64
t=0 0
m=audio
```

4000

```
 RTP/AVP 9 101
a=ptime:20
a=rtpmap:9 G722/8000
a=
```

sendonly

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

当Media Sense应答呼叫后，将捕获类似事件。请注意，发送的ACK包含端口4000并指示**sendonly**。

两个SIP对话建立后的会话信息。


```
 {"sessionData": {
"callControllerIP": "10.106.122.174",
"callControllerType": "Cisco-CUCM",
"endPoints": [
{
"clusterid": "StandAloneCluster",
"conference": false,
"device": "
```

SEP1C17D341FD21

```
",
"dn": "
```

4009

```
",
"startDate": 1437061192882,
"tracks": [{
"codec": "
```

G722

```
",
"location": "/common",
"mediaState": "
```

ACTIVE

```
",
"startDate": 1437061192882,
"track": 0,
"type": "AUDIO"
}],
"type": "
```

NEAR_END

",
"xRefci": "32833194"
},
{
"clusterid": "StandAloneCluster",
"conference": false,
"device": "

SEP203A0782D99F

",
"dn": "

4011

",
"startDate": 1437061192882,
"tracks": [{
"codec": "G722",
"location": "/common",
"mediaState": "ACTIVE",
"startDate": 1437061192882,
"track": 1,
"type": "AUDIO"
}],
"type": "

FAR_END

",
"xRefci": "32833193"
}
],
"operationType": "

ADD

",
"recordingServer": "10.106.122.178",
"rtspUrl": "rtsp://10.106.122.178/d14e97859bff1",
"sessionName": "

d14e97859bff1

",
"sipServer": "10.106.122.178",
"startDate": 1437061192882,
"state": "

ACTIVE

",
"version": 7

当呼叫断开时，电话停止录音。

```
 0000010897: 10.106.122.178: Jul 16 2015 08:40:01.525 -0700: %CCBU_CALL_CONTROL-7-TRACE:
{Thrd=DIALOG_CALLBACK.7} -Core: dispatch
```

StopRecordingRequestEvent

```
: SipRequestContextImpl-78, type=Sip, Session:
```

d14e97859bff1

```
, ACTIVE, call=SipCall-26, INBOUND_RECORDING, FAR_END, State=DISCONNECTED, firstCall=null to
Recording Adapter
0000009368: 10.106.122.178: Jul 16 2015 08:40:01.762 -0700: %CCBU_COMMON-6-VSMS HTTP Info:
{Thrd=Pool-capture-thread-39} %[HTTP Response Body=<Session>
<diskusage>
<recording name="
```

d14e97859bff1

```
-TRACK0"
```

size="1"

```
 repository="/common" />
<recording name="
```

d14e97859bff1

```
-TRACK1"
```

size="1"

```
 repository="/common" />
</diskusage>
<rtsplink>/archive/
```

d14e97859bff1

```
</rtsplink>
```

> **注意：**在此区域中，您注意到录制属性中有一个大小。此示例显示**size="1"**，这意味着MediaSense确实从CUCM接收音频。如果您注**意到size="0"**，则表示MediaSense未从CUCM接收音频。

最后，会话关闭。

```
 {"sessionData": {
"callControllerIP": "10.106.122.174",
"callControllerType": "Cisco-CUCM",
"endDate": 1437061201522,
"endPoints": [
{
"clusterid": "StandAloneCluster",
"conference": false,
"device": "
```

SEP1C17D341FD21

",
"dn": "

4009

",
"startDate": 1437061192882,
"tracks": [{
"codec": "G722",
"location": "/common",
"mediaState": "ACTIVE",
"size": 1,
"startDate": 1437061192882,
"track": 0,
"type": "AUDIO"
}],
"type": "

NEAR_END

",
"xRefci": "32833194"
},
{
"clusterid": "StandAloneCluster",
"conference": false,
"device": "

SEP203A0782D99F

",
"dn": "

4011

",
"startDate": 1437061192882,
"tracks": [{
"codec": "G722",
"location": "/common",
"mediaState": "ACTIVE",
"size": 1,
"startDate": 1437061192882,
"track": 1,
"type": "AUDIO"
}],
"type": "

FAR_END

",
"xRefci": "32833193"
}
],
"operationType": "EXISTING",
"recordingServer": "10.106.122.178",
"rtspUrl": "rtsp://10.106.122.178/archive/d14e97859bff1",
"sessionName": "

d14e97859bff1

```
",
"sipServer": "10.106.122.178",
"startDate": 1437061192882,
"state": "
```

CLOSED

```
",
"version": 11
```


从MediaSense收集日志

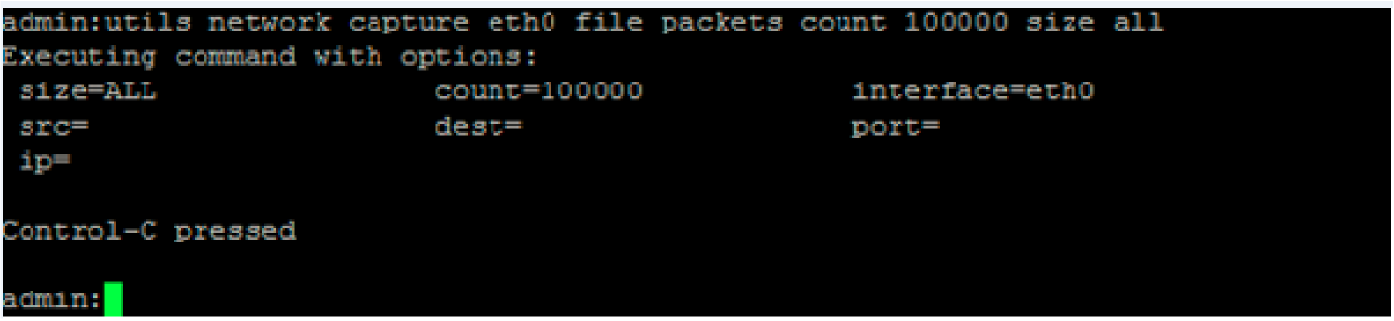
步骤1.启用呼叫控制服务跟踪级别以在MediaSense适用性中调试。

如本图所示，MediaSense服务。

步骤2.在MediaSense上启用数据包捕获。

请运行**utils network capture eth0 file packets count 100000 size all以在MediaSense上启用数据包捕获。**

如本图所示，在MediaSense上捕获数据包。

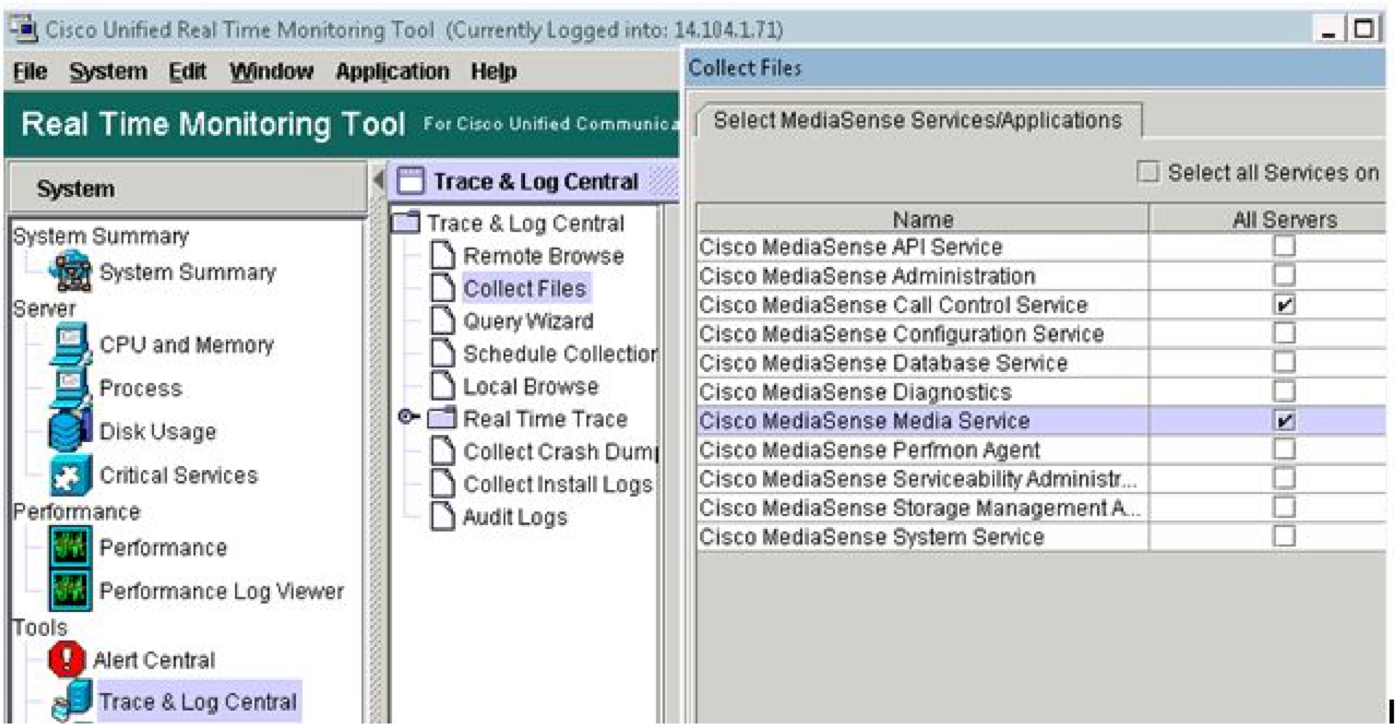


步骤3.使用实时监控工具(RTMT)收集日志

使用RTMT连接到MediaSense服务器。

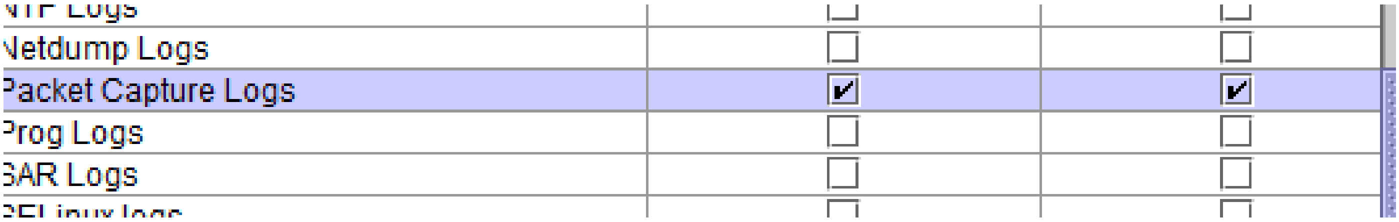
导航至**跟踪和日志中心**>收**集文件**

如图所示，实时监控工具。



单击“下**一步”**并选择**数据包捕获**

如图所示，实时监控工具。



相应地选择时间。

一些有用的命令：

1.**utils media recording_sessions**

utils media recording_sessions file fileName命令生成一个html文件，其中包含此Cisco MediaSense服务器处理的最后100个录制会话的详细列表。在执行此命令之前，请确认Cisco MediaSense呼叫控制服务正在运行。文件将保存到platform/cli/文件夹，并可使用file get activelog platform/cli/fileName命令下载。

命令：**utils media recording_sessions文件**fileName

详细信息：

- **file**是将信息输出到文件的必需参数。
- **fileName**是定义.html文件名称的必需参数。
- 发出此命令时，您会得到以下响应：Cisco MediaSense呼叫控制服务录制会话保存到平台/cli/<filename>.html。现在，您可以使用：file get activelog platform/cli/<filename>.html然后，您可以从该目录检索文件并将其保存到您选择的位置。

示例：

- **utils media recording_sessions文**件sessions.html Cisco MediaSense。呼叫控制服务录制会话已保存到platform/cli/sessions.html。现在，您可以使用：文件获取活动日志platform/cli/sessions.html

2.**utis系统维护**

命令**使用系统维护**操作启用或禁用Cisco MediaSense上的维护模式，或显示Cisco MediaSense维护模式状态。当处于维护模式时，Cisco MediaSense无法处理任何录制请求或API请求。

当Cisco MediaSense进入维护模式时，它将重新启动。任何流活动都会突然结束。任何活动录制都以CLOSED_ERROR状态结束。当维护模式被禁用时，Cisco MediaSense将再次重新启动，并重新进入正常模式。

命令：**utils系统维护操**作

详细信息：operation指定命令的作用。

有效操作包括：

- 启用
- 禁用
- 状态

示例：

- utis系统维护启用
- utis system maintenance disable
- utils系统维护状态

一些基本问题

MediaSense文档维基

已知缺陷

CSCup24364 :C所有录音都无法处理没有呼叫方id的呼叫获取错误消息。

CSCui13760: MediaSense不支持从群集中删除节点。

CSCtn45420: MediaSense呼叫记录在Camelot SIP终端上失败。

CSCut09446: MediaSense UI不填充CUCM配置和API用户配置。

CSCuo95309: MediaSense搜索和播放录制未从其他节点填充。

CSCuq20108: 使用转义字符时，从头到被截断。