

CUCM en VCS ervaren eenzijdig geluid op oproepen tussen deze apparaten

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Inleiding

Dit document beschrijft hoe u problemen kunt oplossen bij één manier van audio-problemen voor gesprekken tussen de Video Communication Server (VCS) en Cisco Unified Communications Manager (CUCM).

Probleem

Een vraag als dit, Endpoint 1-H323-VCS-SIP—CUCM-Endpoint 2, kan in eenrichtingsaudio resulteren waar Endpoint 1 geen Endpoint 2 hoort.

Hier is de loganalyse van VCS.

VCS stuurt de 200 OK naar de Call Manager:

```
2014-01-23T12:40:10+11:00 vcs-cont-pro-1 tvcs: UTCTime="2014-01-23 01:40:10,296"
Module="network.sip" Level="DEBUG": Dst-ip="10.69.12.2" Dst-port="60493"
SIPMSG:
|SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.69.12.2:5060;branch=z9hG4bK2359e3e241306;received=
10.69.12.2;ingress-zone=CUCMNeighbour
Call-ID: 8935a699d9e9e3f8@127.0.0.1
CSeq: 102 INVITE
Contact: <sip:AVS.EX60.-.Elliott@172.17.254.1>
From: <sip:00419241145@10.69.11.1:5060>;tag=6417ce1c-8b93-4ba0-859a-ad892a39
e373-92748854
To: <sip:AVS.EX60.-.Elliott@172.17.254.1>;tag=27b6f95b717b59fc
v=0
o=tandberg 0 3 IN IP4 127.0.0.1
s=-
c=IN IP4 172.17.254.1
b=AS:512
t=0 0
m=audio 51390 RTP/AVP 0 101
b=TIAS:64000
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

```
a=sendrecv
a=rtcp:51391 IN IP4 172.17.254.1
```

Vóór de MasterSlaveAssessment, probeert VCS een OpenLogical Channel (OLC) naar het eindpunt te sturen, wat resulteert in de afwijzing van de OLC door endpoints:

```
2014-01-23T12:40:10+11:00 vcs-cont-pro-1 tvcs: UTCTime="2014-01-23 01:40:10,366"
Module="network.h323" Level="DEBUG": Dst-ip="172.19.83.180" Dst-port="11158"
Sending H.245 PDU:
value MultimediaSystemControlMessage ::= request : openLogicalChannel :
{
  forwardLogicalChannelNumber 1,
  forwardLogicalChannelParameters
  {
    dataType audioData &colon; g711Ulaw64k : 40,
    multiplexParameters h2250LogicalChannelParameters :
    {
      sessionID 1,
      mediaControlChannel unicastAddress : ipAddress :
      {
        network 'AC11FE01'H,
        tsapIdentifier 51669
      },
      transportCapability
      {
        mediaChannelCapabilities
        {
          {
            mediaTransport ip-UDP : NULL
          }
        }
      }
    }
  }
}
```

Hier is de MasterSlaveAssessment van het eindpunt:

```
2014-01-23T12:40:10+11:00 vcs-cont-pro-1 tvcs: UTCTime="2014-01-23 01:40:10,475"
Module="network.h323" Level="INFO": Src-ip="172.19.83.180" Src-port="11158"
Detail="Received H.245 MasterSlaveDeterminationRequest "
2014-01-23T12:40:10+11:00 vcs-cont-pro-1 tvcs: UTCTime="2014-01-23 01:40:10,475"
Module="network.h323" Level="DEBUG": Src-ip="172.19.83.180" Src-port="11158"
Received H.245 PDU:
value MultimediaSystemControlMessage ::= request : masterSlaveDetermination :
{
  terminalType 190,
  statusDeterminationNumber 8028716
}
```

Hier is MasterSlaveAssessmentAck aan het eindpunt:

```
2014-01-23T12:40:10+11:00 vcs-cont-pro-1 tvcs: UTCTime="2014-01-23 01:40:10,475"
Module="network.h323" Level="INFO": Dst-ip="172.19.83.180" Dst-port="11158"
Detail="Sending H.245 MasterSlaveDeterminationAckResponse Master"
2014-01-23T12:40:10+11:00 vcs-cont-pro-1 tvcs: UTCTime="2014-01-23 01:40:10,475"
Module="network.h323" Level="DEBUG": Dst-ip="172.19.83.180" Dst-port="11158"
Sending H.245 PDU:
value MultimediaSystemControlMessage ::= response : masterSlaveDeterminationAck :
{
  decision master : NULL
}
```

}

De afwijzing door het eindpunt van de OLC resulteert in één-weg audio, omdat de OLC vóór de MasterSlaveAssessment in.

```
2014-01-23T12:40:10+11:00 vcs-cont-pro-1 tvcs: UTCTime="2014-01-23 01:40:10,519"
Module="network.h323" Level="INFO": Src-ip="172.19.83.180" Src-port="11158"
Detail="Received H.245 OpenLogicalChannelRejResponse "
2014-01-23T12:40:10+11:00 vcs-cont-pro-1 tvcs: UTCTime="2014-01-23 01:40:10,519"
Module="network.h323" Level="DEBUG": Src-ip="172.19.83.180" Src-port="11158"
Received H.245 PDU:
value MultimediaSystemControlMessage ::= response : openLogicalChannelReject :
{
forwardLogicalChannelNumber 1,
cause masterSlaveConflict : NULL
}
```

Oplossing

Dit probleem wordt veroorzaakt door Cisco bug ID [CSCuc98144](#) en de oplossing is om lege INVITE uit te schakelen op het VCS-zoneprofiel voor de CUCM-zone. Dit dwingt de VCS om een eerste INVITE met een vooraf ingesteld Session Description Protocol (SDP) te verzenden, waardoor de verbinding met geluid in beide richtingen mogelijk wordt.

Onder **VCS Configuration -> Zones -> Zones -> Zones**, selecteert u CUCM-zone en wijzigt u de velden die in dit screenshot zijn aangegeven:

The screenshot shows the 'Advanced' configuration tab for a VCS zone profile. The 'Zone profile' is set to 'Custom'. The 'Send empty INVITE for interworked calls' option is highlighted with a red circle and set to 'OFF'. Other options include 'Monitor peer status' (set to 'Yes'), 'Call signaling routed mode' (set to 'Auto'), 'Automatically respond to H.323 searches' (set to 'OFF'), 'Automatically respond to SIP searches' (set to 'OFF'), 'SIP poison mode' (set to 'OFF'), 'SIP encryption mode' (set to 'Auto'), 'SIP SDP attribute line limit mode' (set to 'OFF'), 'SIP SDP attribute line limit length' (set to '130'), 'SIP multipart MIME strip mode' (set to 'OFF'), 'SIP UPDATE strip mode' (set to 'OFF'), 'Interworking SIP search strategy' (set to 'Options'), 'SIP UDR/BCP filter mode' (set to 'OFF'), 'SIP UDR/IX filter mode' (set to 'OFF'), 'SIP Duo Video filter mode' (set to 'OFF'), 'SIP record route address type' (set to 'IP'), and 'SIP Proxy-Require header strip list' (empty). A tooltip on the right explains the 'Send empty INVITE' option: 'with no SDP to send to this zone. INVITES with no SDP mean that the destination device is asked to initiate the codec selection, and are used when the call has been interworked locally from H.323. On: SIP INVITES with no SDP are generated and sent to this neighbor. Off: SIP INVITES are generated and a pre-configured SDP is inserted before the INVITES are sent to this neighbor. Default: On'.

De andere optie is om VCS op versie X8.1.1 aan te passen waar het probleem is opgelost.

Opmerking: Dit is slechts een van de redenen dat een gesprek één-weg audio zou kunnen hebben.