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简介

本文描述会话初始化协议(SIP)可靠临时答复功能工作和如何如何在Cisco Unified Border Element (多维数据集)和Cisco Unified Communications Manager (CUCM)配置它。

先决条件

要求

Cisco 建议您了解以下主题：

- Cisco Unified Border Element (多维数据集)企业
- Cisco Unified Communications Manager Express (CUCME)
- Cisco Unified Communications Manager (CUCM)
- 会话初始化协议(SIP)

使用的组件

本文档中的信息基于以下软件和硬件版本：

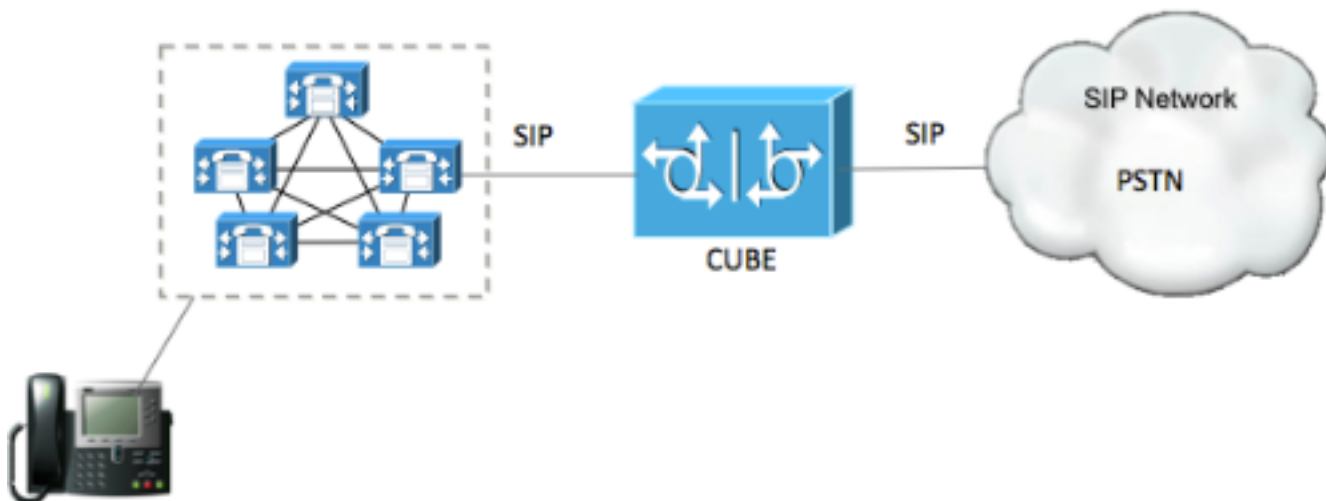
- 在Cisco集成服务路由器(ISR)的Cisco IOS版本15.1(4)M4：系列2800，3800，2900，3900
- 在Cisco ASR 1000系列汇聚服务路由器的Cisco IOS版本15.1(3)S4

注意：此配置示例对以上所列的软件版本和硬件平台没有被限制;此配置用Cisco IOS版本12.4(24)T5也工作在Cisco AS5400XM通用网关。

背景信息

可靠临时答复介绍为了改善的SIP集成公共交换电话网(PSTN)。多数常见情况是建立语音/音频路径在呼叫的完成前;因此，呼叫方听到PSTN或音乐生成的通告。

例如，在拓扑之下，IP电话呼叫PSTN会议桥或一些免费电话，并且被呼叫端示出提示符，在应答呼叫前。如果CUCM发起与延迟提供的呼叫(INVITE不包含会话描述协议(SDP))呼叫方将听不到提示符。



在某些情况下，PSTN侧生成回令音。如果媒体没有被穿过，在呼叫连接前，呼叫方也许听不到回令音。

SIP可靠临时答复可以用于解决上述问题，无需介入额外的媒体资源(例如梅迪亚传输协议(MTP))，这些临时答复和PRACK消息为提供/答案交换提供另外的机会。

多维数据集配置

默认情况下，多维数据集支持与此配置的可靠答复：

如果它接收180/183与报头的消息要求，这意味着，作为用户代理客户端(UAC)：100rel，它将回应PRACK;然而，作为用户代理服务器(UAS)，它不会派出180/183与报头要求：100rel。

为了强制多维数据集发送18X与请要求：100rel(以便将等待从UAC的PRACK)，这是配置示例：

全局级别：

级的Dial-peer：

注意：dial-peer设置优先于全局设置。

CUCM配置

默认情况下，CUCM不支持可靠答复。然而，您能更改SIP中继配置文件为了配置它：

1. 在CUCM管理界面，去**设置的设备>的设备>SIP配置文件**。
2. 打开一给的SIP中继使用的SIP配置文件。
3. 从SIP Rel1XX选项下拉列表选择**所有1xx消息的发送PRACK**。
4. 重置给的SIP中继的SIP中继配置文件。

The image shows a configuration page titled "Trunk Specific Configuration". It contains several settings:

- "Reroute Incoming Request to new Trunk based on*" is set to "Never".
- "RSVP Over SIP*" is set to "Local RSVP".
- A checkbox "Fall back to local RSVP" is checked.
- "SIP Rel1XX Options*" is a dropdown menu currently showing "Send PRACK for all 1xx Messages".
- Below this are several unchecked checkboxes:
 - Deliver Conference Bridge Identifier
 - Early Offer support for voice and video calls (insert MTP if needed)
 - Send send-receive SDP in mid-call INVITE
 - Allow Presentation Sharing using BFCP

注意：如果给的SIP中继使用默认SIP中继配置文件(英文虎报SIP配置文件)，复制到新配置文件和适用于SIP中继是最佳的;否则，默认SIP中继配置文件将影响所有SIP中继。

注意：即使您做上述变动，CUCM可以通过发送PRACK仅支持可靠答复作为UAC;然而，暂时，它不能发送180/183与要求：100re报头作为UAS。

典型的SIP消息

如果可靠response在多维数据集的流入的拨号对等体配置，一典型的呼叫类似于此：

```
// CUCM receives INVITE with delay offer from CUCM. INVITE sip:2002@10.66.75.246:5060 SIP/2.0
Date: Thu, 04 Apr 2013 05:30:27 GMT
Call-Info: <sip:10.66.75.171:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
From: <sip:4832@10.66.75.171>;tag=169850~fb41edd8-7bc7-4ced-b8b0-9b10a31db5c4-19845894
Allow-Events: presence, kpml
P-Asserted-Identity: <sip:4832@10.66.75.171>
```

Supported: **100rel**,timer,resource-priority,replaces,X-cisco-srtp-fallback,Geolocation
Min-SE: 7200
Cisco-Guid: 3228672256-0000065536-0000000027-2873836042
Remote-Party-ID: <sip:4832@10.66.75.171>;party=calling;screen=yes;privacy=off
Content-Length: 0
User-Agent: Cisco-CUCM8.6
To: <sip:2002@10.66.75.246>
Contact: <sip:4832@10.66.75.171:5060;transport=tcp>
Expires: 180
Call-ID: c071a100-15d10ff3-24695-ab4b420a@10.66.75.171
Via: SIP/2.0/TCP 10.66.75.171:5060;branch=z9hG4bK246d9521aba1b
CSeq: 101 INVITE
Session-Expires: 7200
Max-Forwards: 70// CUBE receives INVITE with delay offer from CUCM. INVITE
sip:2002@10.66.75.246:5060 SIP/2.0
Date: Thu, 04 Apr 2013 05:30:27 GMT
Call-Info: <sip:10.66.75.171:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, **PRACK**, UPDATE, REFER, SUBSCRIBE, NOTIFY
From: <sip:4832@10.66.75.171>;tag=169850~fb41edd8-7bc7-4ced-b8b0-9b10a31db5c4-19845894
Allow-Events: presence, kpml
P-Asserted-Identity: <sip:4832@10.66.75.171>
Supported: **100rel**,timer,resource-priority,replaces,X-cisco-srtp-fallback,Geolocation
Min-SE: 7200
Cisco-Guid: 3228672256-0000065536-0000000027-2873836042
Remote-Party-ID: <sip:4832@10.66.75.171>;party=calling;screen=yes;privacy=off
Content-Length: 0
User-Agent: Cisco-CUCM8.6
To: <sip:2002@10.66.75.246>
Contact: <sip:4832@10.66.75.171:5060;transport=tcp>
Expires: 180
Call-ID: c071a100-15d10ff3-24695-ab4b420a@10.66.75.171
Via: SIP/2.0/TCP 10.66.75.171:5060;branch=z9hG4bK246d9521aba1b
CSeq: 101 INVITE
Session-Expires: 7200
Max-Forwards: 70// CUBE responds 183 with SDP which also contains **Require: 100rel**.SIP/2.0 183
Session Progress
Via: SIP/2.0/TCP 10.66.75.171:5060;branch=z9hG4bK246d9521aba1b
From: <sip:4832@10.66.75.171>;tag=169850~fb41edd8-7bc7-4ced-b8b0-9b10a31db5c4-19845894
To: <sip:2002@10.66.75.246>;tag=42CF0134-1BC8
Date: Thu, 04 Apr 2013 05:50:29 GMT
Call-ID: c071a100-15d10ff3-24695-ab4b420a@10.66.75.171
CSeq: 101 INVITE
Require: 100rel
RSeq: 3344
Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO,
REGISTER
Allow-Events: telephone-event
Contact: <sip:2002@10.66.75.246:5060;transport=tcp>
Supported: sdp-anat
Supported: X-cisco-srtp-fallback
Server: Cisco-SIPGateway/IOS-15.2.4.M2.8
Content-Type: application/sdp
Content-Disposition: session;handling=required
Content-Length: 330

v=0
o=CiscoSystemsSIP-GW-UserAgent 4874 2535 IN IP4 10.66.75.246
s=SIP Call
c=IN IP4 10.66.75.246
t=0 0
m=audio 16442 RTP/AVP 8 0 18 101 19
c=IN IP4 10.66.75.246
a=rtpmap:8 PCMA/8000
a=rtpmap:0 PCMU/8000

a=rtpmap:18 G729/8000
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=rtpmap:19 CN/8000SIP/2.0 183 Session Progress
Via: SIP/2.0/TCP 10.66.75.171:5060;branch=z9hG4bK246d9521aba1b
From: <sip:4832@10.66.75.171>;tag=169850~fb41edd8-7bc7-4ced-b8b0-9b10a31db5c4-19845894
To: <sip:2002@10.66.75.246>;tag=42CF0134-1BC8
Date: Thu, 04 Apr 2013 05:50:29 GMT
Call-ID: c071a100-15d10ff3-24695-ab4b420a@10.66.75.171
CSeq: 101 INVITE
Require: 100rel
RSeq: 3344
Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
Allow-Events: telephone-event
Contact: <sip:2002@10.66.75.246:5060;transport=tcp>
Supported: sdp-anat
Supported: X-cisco-srtp-fallback
Server: Cisco-SIPGateway/IOS-15.2.4.M2.8
Content-Type: application/sdp
Content-Disposition: session;handling=required
Content-Length: 330

v=0
o=CiscoSystemsSIP-GW-UserAgent 4874 2535 IN IP4 10.66.75.246
s=SIP Call
c=IN IP4 10.66.75.246
t=0 0
m=audio 16442 RTP/AVP 8 0 18 101 19
c=IN IP4 10.66.75.246
a=rtpmap:8 PCMA/8000
a=rtpmap:0 PCMU/8000
a=rtpmap:18 G729/8000
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=rtpmap:19 CN/8000PRACK sip:2002@10.66.75.246:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.66.75.171:5060;branch=z9hG4bK246da4c33fa3e
From: <sip:4832@10.66.75.171>;tag=169850~fb41edd8-7bc7-4ced-b8b0-9b10a31db5c4-19845894
To: <sip:2002@10.66.75.246>;tag=42CF0134-1BC8
Date: Thu, 04 Apr 2013 05:30:27 GMT
Call-ID: c071a100-15d10ff3-24695-ab4b420a@10.66.75.171
CSeq: 102 PRACK**ack: 3344 101 INVITE**
Allow-Events: presence, kpml
Max-Forwards: 70
Content-Type: application/sdp
Content-Length: 213

v=0
o=CiscoSystemsCCM-SIP 169850 1 IN IP4 10.66.75.171
s=SIP Call
c=IN IP4 10.66.75.89
t=0 0
m=audio 26662 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15PRACK sip:2002@10.66.75.246:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.66.75.171:5060;branch=z9hG4bK246da4c33fa3e
From: <sip:4832@10.66.75.171>;tag=169850~fb41edd8-7bc7-4ced-b8b0-9b10a31db5c4-19845894
To: <sip:2002@10.66.75.246>;tag=42CF0134-1BC8
Date: Thu, 04 Apr 2013 05:30:27 GMT
Call-ID: c071a100-15d10ff3-24695-ab4b420a@10.66.75.171

CSeq: 102 PRACK: 3344 101 INVITE

Allow-Events: presence, kpml
Max-Forwards: 70
Content-Type: application/sdp
Content-Length: 213

v=0

o=CiscoSystemsCCM-SIP 169850 1 IN IP4 10.66.75.171

s=SIP Call

c=IN IP4 10.66.75.89

t=0 0

m=audio 26662 RTP/AVP 0 101

a=rtpmap:0 PCMU/8000

a=ptime:20

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.66.75.171:5060;branch=z9hG4bK246da4c33fa3e
From: <sip:4832@10.66.75.171>;tag=169850~fb41edd8-7bc7-4ced-b8b0-9b10a31db5c4-19845894
To: <sip:2002@10.66.75.246>;tag=42CF0134-1BC8
Date: Thu, 04 Apr 2013 05:50:29 GMT
Call-ID: c071a100-15d10ff3-24695-ab4b420a@10.66.75.171
Server: Cisco-SIPGateway/IOS-15.2.4.M2.8

CSeq: 102 PRACK

Content-Length: 0SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.66.75.171:5060;branch=z9hG4bK246da4c33fa3e
From: <sip:4832@10.66.75.171>;tag=169850~fb41edd8-7bc7-4ced-b8b0-9b10a31db5c4-19845894
To: <sip:2002@10.66.75.246>;tag=42CF0134-1BC8
Date: Thu, 04 Apr 2013 05:50:29 GMT
Call-ID: c071a100-15d10ff3-24695-ab4b420a@10.66.75.171
Server: Cisco-SIPGateway/IOS-15.2.4.M2.8

CSeq: 102 PRACK

Content-Length: 0SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.66.75.171:5060;branch=z9hG4bK246da4c33fa3e
From: <sip:4832@10.66.75.171>;tag=169850~fb41edd8-7bc7-4ced-b8b0-9b10a31db5c4-19845894
To: <sip:2002@10.66.75.246>;tag=42CF0134-1BC8
Date: Thu, 04 Apr 2013 05:50:29 GMT
Call-ID: c071a100-15d10ff3-24695-ab4b420a@10.66.75.171
Server: Cisco-SIPGateway/IOS-15.2.4.M2.8

CSeq: 102 PRACK

Content-Length: 0

排除故障

为了排除故障在多维数据集的此问题，必须启用这些调试：

SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.66.75.171:5060;branch=z9hG4bK246da4c33fa3e
From: <sip:4832@10.66.75.171>;tag=169850~fb41edd8-7bc7-4ced-b8b0-9b10a31db5c4-19845894
To: <sip:2002@10.66.75.246>;tag=42CF0134-1BC8
Date: Thu, 04 Apr 2013 05:50:29 GMT
Call-ID: c071a100-15d10ff3-24695-ab4b420a@10.66.75.171
Server: Cisco-SIPGateway/IOS-15.2.4.M2.8

CSeq: 102 PRACK

Content-Length: 0SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.66.75.171:5060;branch=z9hG4bK246da4c33fa3e
From: <sip:4832@10.66.75.171>;tag=169850~fb41edd8-7bc7-4ced-b8b0-9b10a31db5c4-19845894
To: <sip:2002@10.66.75.246>;tag=42CF0134-1BC8
Date: Thu, 04 Apr 2013 05:50:29 GMT
Call-ID: c071a100-15d10ff3-24695-ab4b420a@10.66.75.171
Server: Cisco-SIPGateway/IOS-15.2.4.M2.8

CSeq: 102 PRACK

Content-Length: 0

症状1：多维数据集派出180/183，不用要求：100re报头。

验证rel1xx要求100re配置在appropriate dial-peer或语音服务voip下。

症状2：要求：100re对CUCM的报头。

当CUCM不支持可靠答复，此问题通常出现。为了解决此问题，在CUCM的enable (event) Rel1xx。

相关信息

- [技术支持和文档 - Cisco Systems](#)

本文档是否是有用？[有](#) [没有](#)

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