

# Record Call Progress Analysis (CPA) with SIP dialer

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## Introduction

This document describes the procedure to record CPA with Unified Contact Center Enterprise (UCCE) SIP dialer.

## Prerequisites

### Requirements

Cisco recommends that you have knowledge of these topics:

- UCCE
- SIP dialer

### Components Used

This document is not restricted to specific software and hardware versions.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

## Background Information

UCCE badialer process initiates the call through the IOS gateway when outbound campaign starts. Once the call is connected, badialer process instructs the IOS gateway in SIP signaling to do CPA. Based on the CPA result, the call is processed according to the outbound campaign configuration. Details of the IOS gateway CPA overview can be found [here](#). The IOS gateway returns a CPA result in Special Information Tone (SIT) in SIP signaling back to the badialer.

List of SIT :

Name	Definition
CpaS	Start of CPA algorithm
FT	Fax/Modem tone.
Asm	Answer Machine.
AsmT	Answer Machine Terminate Tone.
LS	Live human speech.
LV	Low voice signal
SitIC	SIT tone IC - Intercept - Vacant No. or AIS or etc.
SitNC	SIT tone NC - No Circuit, Emergency or Trunk Blockage
SitVC	SIT tone VC - Vacant Code
SitRO	SIT tone RO - Reorder Announcement
SitMT	SIT tone Miscellaneous

## Problem

When unsure of the CPA, there must be a way to review the actual voice information received from the service provider to determine if the CPA result is correct or not.

## Solution

Record CPA must be configured in the outbound campaign under the campaign purpose.

The screenshot shows the 'Campaign Purpose' configuration page. The 'Agent Based Campaign' option is selected. Under this option, 'Enable IP AMD' is checked, and 'Call Progress Analysis (CPA)' is also checked. Within the 'Call Progress Analysis (CPA)' section, the 'Record CPA' checkbox is checked and highlighted in yellow. The 'Transfer to Agent' radio button is selected under the 'Enable IP AMD' section. The 'Transfer to IVR Campaign' radio button is unselected, and its 'Enable IP AMD' checkbox is unchecked.

The wav file is saved on the dialer server under the folder `licm\<instance>\dialer`. The file name is in the format `<dialer port>_<call ID>_<date>_<time>.wav`.

The mechanism behind this feature in sip dialer scenario is explained below.

- IP of the SIP dialer : 10.201.226.119
- IP of the IOS gateway : 10.201.162.138

With record CPA set in the campaign, dialer instructs the gateway to send the media to the dialer (recvonly) after the gateway sends a SIP 183 session progress message, in the PRACK message. Below is the message sent to the gateway by the dialer process:

```
000094: Aug 5 16:06:26.281: //-1/xxxxxxxxxxxx/SIP/Msg/ccsipDisplayMsg:
Received:
PRACK sip:9722041111@10.201.162.138:5060 SIP/2.0
Via: SIP/2.0/UDP 10.201.226.119:58800;branch=z9hG4bK-d8754z-1d42a824dc4a8700-1---d8754z-;rport
Max-Forwards: 70
Contact: <sip:3008@10.201.226.119:58800>
To: <sip:9722041111@10.201.162.138>;tag=1BA74568-8FD
From: <sip:3008@10.201.226.119>;tag=5230550f
Call-ID: d907465a-f8378d74-fb3d5439-8e4b3c52
CSeq: 2 PRACK
Content-Disposition: session;handling=required
Content-Type: application/sdp
User-Agent: Cisco-SIPDialer/UCCE10.0
RAck: 9340 1 INVITE
Content-Length: 209
```

```
v=0
o=CiscoSystemsSIP-GW-UserAgent 5501 9158 IN IP4 10.201.226.119
s=SIP Call
c=IN IP4 10.201.226.119
t=0 0
m=audio 32000 RTP/AVP 0
c=IN IP4 10.201.226.119
a=rtpmap:0 PCMU/8000
a=ptime:20
a=recvonly
```

Without the record CPA, the dialer sends a PRACK back with inactive media.

```
000146: Aug 5 16:14:18.828: //-1/xxxxxxxxxxxx/SIP/Msg/ccsipDisplayMsg:
Received:
PRACK sip:9722041111@10.201.162.138:5060 SIP/2.0
Via: SIP/2.0/UDP 10.201.226.119:58800;branch=z9hG4bK-d8754z-be59451c26041877-1---d8754z-;rport
Max-Forwards: 70
Contact: <sip:3010@10.201.226.119:58800>
To: <sip:9722041111@10.201.162.138>;tag=1BAE7B50-1846
From: <sip:3010@10.201.226.119>;tag=b94cfc78
Call-ID: 467e1354-f5086d42-f8126c34-f448954e
CSeq: 2 PRACK
Content-Disposition: session;handling=required
Content-Type: application/sdp
User-Agent: Cisco-SIPDialer/UCCE10.0
RAck: 5482 1 INVITE
Content-Length: 188
```

```
v=0
o=CiscoSystemsSIP-GW-UserAgent 2037 7013 IN IP4 0.0.0.0
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 16414 RTP/AVP 0
c=IN IP4 0.0.0.0
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
```