

Configuration Guide for Google CES  
Agent Handoff Using Ribbon SWe Core  
SBC V12.01.07R000



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## 1 Audience

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This document is intended for the SIP Trunk customer’s technical staff and Value-Added Reseller (VAR) having installation and operational responsibilities.

### 1.1 Introduction

This configuration guide describes configuration steps for **Google CES Agent Handoff** using **Ribbon SWe Core SBC V12.01.07R000**

#### 1.1.1 TekVizion Labs

TekVizion Labs™ is an independent testing and verification facility offered by TekVizion, Inc. TekVizion Labs offers several types of testing services including:

- Remote Testing – provides secure, remote access to certain products in TekVizion Labs for pre-Verification and ad hoc testing.
- Verification Testing – Verification of interoperability performed on-site at TekVizion Labs between two products or in a multi-vendor configuration.
- Product Assessment – independent assessment and verification of product functionality, interface usability, assessment of differentiating features as well as suggestions for added functionality, stress, and performance testing, etc.

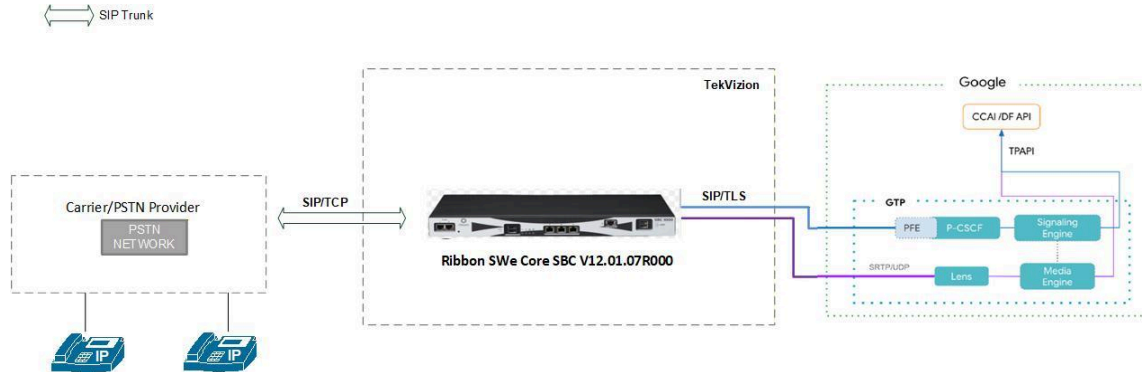
TekVizion is a systems integrator specifically dedicated to the telecommunications industry. Our core services include consulting/solution design, interoperability/Verification testing, integration, custom software development and solution support services. Our services help service providers achieve a smooth transition to packet-voice networks, speeding delivery of integrated services. While we have expertise covering a wide range of technologies, we have extensive experience surrounding our practice areas which include SIP Trunking, Packet Voice, Service Delivery, and Integrated Services.

The TekVizion team brings together experience from the leading service providers and vendors in telecom. Our unique expertise includes legacy switching services and platforms, and unparalleled product knowledge, interoperability, and integration experience on a vast array of VoIP and other next-generation products. We rely on this combined experience to do what we do best: help our clients advance the rollout of services that excite customers and result in new revenues for the bottom line. TekVizion leverages this real-world, multi-vendor integration and test experience and proven processes to offer services to vendors, network operators, enhanced service providers, large enterprises and other professional services firms. TekVizion’s headquarters, along with a state-of-the-art test lab and Executive Briefing Center, is located in Plano, Texas.

For more information on TekVizion and its practice areas, please visit [TekVizion Labs website](#).

## 2 SIP Trunking Network Components

The network for the SIP Trunk reference configuration is illustrated below and is representative of Google CES Agent Handoff with Ribbon SWe Core SBC V12.01.07R000 configuration.



**Figure 1: SIP Trunk Lab Reference Network**

The lab network consists of the following components.

- Google CES Cloud Environment
- Ribbon SWe Core SBC V12.01.07R000
- PSTN Gateway

### 3 Hardware Components

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- Ribbon SWe Core SBC running on ESXi version 6.7.0

### 4 Software Requirements

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- Ribbon SWe Core SBC version V12.01.07R000

### 5 Google CES Certified Ribbon SWe Core Versions

**Table 1 – Google CES Certified Ribbon SWe Core SBC Version**

Google CES Certified Ribbon SWe Core SBC Version	
Ribbon SWe Core SBC	V12.01.07R000

### 6 Features

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#### 6.1 Caveats and Limitations

DTLS	DTLS towards Google CES is not tested
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#### 6.2 Failed Testcase

- None

## 7 Configuration

### 7.1 Configuration Checklist

Below are the steps that are required to configure Ribbon SWe Core SBC.

**Table 1 – Ribbon SWe Core SBC Configuration Steps**

Step	Description	Reference
Step 1	Login to Ribbon SWe Core SBC	<a href="#">Section 7.4.1</a>
Step 2	Interface Group	<a href="#">Section 7.4.2</a>
Step 3	Zone	<a href="#">Section 7.4.3</a>
Step 4	SIP Signaling Port	<a href="#">Section 7.4.4</a>
Step 5	SIP Trunk Group	<a href="#">Section 7.4.5</a>
Step 6	IP Peer	<a href="#">Section 7.4.6</a>
Step 7	PathCheck Profile	<a href="#">Section 7.4.7</a>
Step 8	Signaling Profile	<a href="#">Section 7.4.8</a>
Step 9	Codec	<a href="#">Section 7.4.9</a>
Step 10	Packet Service Profile	<a href="#">Section 7.4.10</a>
Step 11	Static Route	<a href="#">Section 7.4.11</a>
Step 12	Routing Label	<a href="#">Section 7.4.12</a>
Step 13	Route	<a href="#">Section 7.4.13</a>
Step 14	SIP Message Manipulations towards Google CES	<a href="#">Section 7.4.14</a>
Step 15	SIP Manipulations from Google CES towards Agent	<a href="#">Section 7.4.15</a>
Step 16	SIP Manipulations from Google CES (SIP REFER)	<a href="#">Section 7.4.16</a>
Step 17	SIP Message Manipulations towards Google CES (UUI Header)	<a href="#">Section 7.4.17</a>
Step 18	SIP LINK using TLS as Transport	<a href="#">Section 7.4.18</a>

## 7.2 IP Address Worksheet

The specific values listed in the table below and in subsequent sections are used in the lab configuration described in this document are for **illustrative purposes only**.

**Table 3 - IP Address Worksheet**

Component	IP Address
<b>Google CES</b>	
Signaling	us.telephony.goog:5672
Media	74.125.X.X
<b>Ribbon SWe Core SBC</b>	
LAN IP Address	10.80.XX.XX
WAN IP Address	192.65.X.X



### 7.3 Google CES API Configuration

Below link can be referred to configuring Google CES API configuration for Agent Handoff.

<https://docs.cloud.google.com/contact-center/insights/docs/troubleshooting>

## 7.4 Ribbon SWe Core SBC Configuration

The following is the example configuration of Ribbon SWe Core SBC for Google CES Agent Handoff.

### 7.4.1 Login to Ribbon SWe Core SBC

- Log into Ribbon SWe Core SBC via SSH using its Management IP Address
- Enter the credentials.
- To enter configuration mode, Type “configure”, and press Enter.
- Configuration is performed in Ribbon SWe Core SBC using the commands listed in the various sections below.

```
admin@iopsbc2> swinfo -v
=====
SERVER:          iopsbc2
OS:              V11.01.00-R000
EMA:             V12.01.07-R000
SBC:             V12.01.07-R000
SBC Type:        isbc
HA mode:         1to1
=====
Installed host role:  active
Current  host role:  active
=====
Build Workspace: jenkinsbuild.tx.sbx1217x
Stream: //sbx/v12_01_7x
Change: 585331
CTP Change: 582969
Build Number: 1145
Build Time: Mon Sep 29 11:27:02 CDT 2025
Build Host: bulldev1-tx
SBC Version: V12.01.07-R000
Required BMC Version: v03.28.00-R000
Required BIOS Version: v2.7.0
Required OS Version: 11.01.00-R000
Required Bluefin BMC Version: v03.28.00-R000
Required Bluefin BIOS Version: v2.14.0
Required Yellowfin BMC Version: v03.28.00-R000
Required Yellowfin BIOS Version: v1.18.0
=====
```

Figure 2: Ribbon SWe Core SBC Login

## 7.4.2 Interface Group

Configure interface towards Google CES and PSTN Gateway as shown below.

### Ribbon WAN:

- The interface designated towards Google CES is named LIF2

```
set addressContext default ipInterfaceGroup LIF2 ipInterface PKT1_V4 ceName
  RIBBONCORE
set addressContext default ipInterfaceGroup LIF2 ipInterface PKT1_V4 portName pkt1
set addressContext default ipInterfaceGroup LIF2 ipInterface PKT1_V4 ipAddress
  192.65.X.X
set addressContext default ipInterfaceGroup LIF2 ipInterface PKT1_V4 prefix 25
set addressContext default ipInterfaceGroup LIF2 ipInterface PKT1_V4 mode inService
set addressContext default ipInterfaceGroup LIF2 ipInterface PKT1_V4 action force
set addressContext default ipInterfaceGroup LIF2 ipInterface PKT1_V4 state enabled
commit
```

### Ribbon LAN:

The interface designated towards PSTN Gateway is named LIF1

```
set addressContext default ipInterfaceGroup LIF1 ipInterface PKT0_V4 ceName
  RIBBONCORE
set addressContext default ipInterfaceGroup LIF1 ipInterface PKT0_V4 portName pkt0
set addressContext default ipInterfaceGroup LIF1 ipInterface PKT0_V4 ipAddress
  10.80.X.X
set addressContext default ipInterfaceGroup LIF1 ipInterface PKT0_V4 prefix 24
set addressContext default ipInterfaceGroup LIF1 ipInterface PKT0_V4 mode inService
set addressContext default ipInterfaceGroup LIF1 ipInterface PKT0_V4 action force
set addressContext default ipInterfaceGroup LIF1 ipInterface PKT0_V4 state enabled
commit
```

## 7.4.3 Zone

Configure Zone towards Google CES and PSTN Gateway as shown below.

### PSTN Gateway:

```
set addressContext default zone PSTN id 4
commit
```

### Google CES:

```
set addressContext default zone GOOGLE id 6
commit
```

#### 7.4.4 SIP Signaling port

- Configure SIP Signaling port towards Google CES and PSTN Gateway as shown below.
- The SIP Signaling port designated towards PSTN is named LIF1.
- The SIP Signaling port designated towards Google is named LIF2.

##### **PSTN Gateway:**

```
set addressContext default zone PSTN sipSigPort 2 ipInterfaceGroupName LIF1
set addressContext default zone PSTN sipSigPort 2 ipAddressV4 10.80.X.X
set addressContext default zone PSTN sipSigPort 2 portNumber 5064
set addressContext default zone PSTN sipSigPort 2 mode inService
set addressContext default zone PSTN sipSigPort 2 state enabled
set addressContext default zone PSTN sipSigPort 2 transportProtocolsAllowed sip-tcp
commit
```

##### **Google CES:**

```
set addressContext default zone GOOGLE sipSigPort 6 ipInterfaceGroupName LIF2
set addressContext default zone GOOGLE sipSigPort 6 ipAddressV4 192.65.X.X
set addressContext default zone GOOGLE sipSigPort 6 portNumber 5060
set addressContext default zone GOOGLE sipSigPort 6 mode inService
set addressContext default zone GOOGLE sipSigPort 6 state enabled
set addressContext default zone GOOGLE sipSigPort 6 siprec disabled
set addressContext default zone GOOGLE sipSigPort 6 tlsProfileName TLS_PROF
set addressContext default zone GOOGLE sipSigPort 6 transportProtocolsAllowed
  sip-tls-tcp
set addressContext default zone GOOGLE sipSigPort 6 tcpKeepaliveTime 60
set addressContext default zone GOOGLE sipSigPort 6 tcpKeepaliveInterval 60
set addressContext default zone GOOGLE sipSigPort 6 tcpKeepaliveProbes 2
commit
```

## 7.4.5 SIP Trunk Group

Configure SIP Trunk group towards Google CES and PSTN Gateway as shown below.

### **PSTN Gateway:**

```
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK state enabled
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK mode inService
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy carrier 0000
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy country 1
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy
localizationVariant northAmerica
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy
tgIPVersionPreference both-ipv4-and-ipv6
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy
preferredIdentity disable
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy
digitParameterHandling numberingPlan NANP_ACCESS
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy callRouting
elementRoutingPriority DEFAULT_IP
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy media
packetServiceProfile DEFAULT
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy services
classOfService DEFAULT_IP
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy signaling
ipSignalingProfile PSTN_IPSP
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy
featureControlProfile DEFAULT_IP
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy ingress flags
nonZeroVideoBandwidthBasedRoutingForSip enable
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy ingress flags
nonZeroVideoBandwidthBasedRoutingForH323 disable
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy ingress flags
hdPreferredRouting disable
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK policy ingress flags
hdSupportedRouting disable
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK signaling
transportPreference preference1 tcp
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK media
medialpInterfaceGroupName LIF1
set addressContext default zone PSTN sipTrunkGroup PSTN_TRUNK ingressIpPrefix
10.64.1.72 32
commit
```

## Google CES:

```
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG state enabled
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG mode
inService
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy carrier
0000
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy country
1
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy
localizationVariant northAmerica
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy
tglIPVersionPreference both-ipv4-and-ipv6
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy
preferredIdentity disable
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy
digitParameterHandling numberingPlan NANP_ACCESS
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy
callRouting elementRoutingPriority DEFAULT_IP
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy media
packetServiceProfile GOOGLE_PSP
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy services
classOfService DEFAULT_IP
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy
signaling ipSignalingProfile GOOGLE_IPSP
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy
featureControlProfile DEFAULT_IP
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy ingress
flags nonZeroVideoBandwidthBasedRoutingForSip enable
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy ingress
flags nonZeroVideoBandwidthBasedRoutingForH323 disable
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy ingress
flags hdPreferredRouting disable
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG policy ingress
flags hdSupportedRouting disable
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG signaling
messageManipulation inputAdapterProfile Agent_PBX
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG signaling
messageManipulation outputAdapterProfile GOOGLE_REC
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG signaling
timers sessionKeepalive 90
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG signaling
timers nonNatKeepAliveTimer 60
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG signaling
timers sessionMinSE 90
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG signaling
transportPreference preference1 tls-tcp
```

```

set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG signaling
sipFilterProfile default
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG signaling
userToUserHdrSupport sendrecv
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG services
natTraversal tcpKeepaliveTimer 240
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG media
dtlsProfileName byotDTLS
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG media
medialpInterfaceGroupName LIF2
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG ingressIpPrefix
0.0.0.0 0
set addressContext default zone GOOGLE sipTrunkGroup GOOGLE_TG ingressIpPrefix
0.0.0.0 32
commit

```

#### 7.4.6 IP Peer

Configure IP Peer towards Google CES and PSTN Gateway as shown below.

##### **PSTN Gateway:**

```

set addressContext default zone PSTN ipPeer PSTN_IPP ipAddress 10.64.X.X
set addressContext default zone PSTN ipPeer PSTN_IPP ipPort 5060
set addressContext default zone PSTN ipPeer PSTN_IPP policy description "PSTN PEER"
set addressContext default zone PSTN ipPeer PSTN_IPP policy sip fqdn ""
set addressContext default zone PSTN ipPeer PSTN_IPP policy sip fqdnPort 0
set addressContext default zone PSTN ipPeer PSTN_IPP pathCheck profile PSTN
set addressContext default zone PSTN ipPeer PSTN_IPP pathCheck hostName ""
set addressContext default zone PSTN ipPeer PSTN_IPP pathCheck hostPort 5060
set addressContext default zone PSTN ipPeer PSTN_IPP pathCheck state enabled
set addressContext default zone PSTN ipPeer PSTN_IPP pathCheck
statusUpdateSupport enabled
commit

```

##### **Google CES:**

```

set addressContext default zone GOOGLE ipPeer GOOGLE defaultForIp false
set addressContext default zone GOOGLE ipPeer GOOGLE sipResponseCodeStats
enabled
set addressContext default zone GOOGLE ipPeer GOOGLE policy description ""
set addressContext default zone GOOGLE ipPeer GOOGLE policy sip fqdn
us.telephony.goog
set addressContext default zone GOOGLE ipPeer GOOGLE policy sip fqdnPort 5671
set addressContext default zone GOOGLE ipPeer GOOGLE policy packetServiceProfile
GOOGLE_PSP
set addressContext default zone GOOGLE ipPeer GOOGLE policy ipSignalingProfile
GOOGLE_IPSP

```

```
set addressContext default zone GOOGLE ipPeer GOOGLE pathCheck profile  
GOOGLE  
set addressContext default zone GOOGLE ipPeer GOOGLE pathCheck hostName  
us.telephony.goog  
set addressContext default zone GOOGLE ipPeer GOOGLE pathCheck hostPort 5671  
set addressContext default zone GOOGLE ipPeer GOOGLE pathCheck state enabled  
commit
```



### 7.4.7 PathCheck Profile

Configure PathCheck profile towards Google CES and PSTN Gateway as shown below.

#### **PSTN Gateway:**

```
set profiles services pathCheckProfile PSTN protocol sipOptions
set profiles services pathCheckProfile PSTN sendInterval 30
set profiles services pathCheckProfile PSTN replyTimeoutCount 3
set profiles services pathCheckProfile PSTN recoveryCount 3
commit
```

#### **Google CES:**

```
set profiles services pathCheckProfile GOOGLE protocol sipOptions
set profiles services pathCheckProfile GOOGLE sendInterval 60
set profiles services pathCheckProfile GOOGLE replyTimeoutCount 1
set profiles services pathCheckProfile GOOGLE recoveryCount 1
set profiles services pathCheckProfile GOOGLE transportPreference preference1
    tls-tcp
set profiles services pathCheckProfile GOOGLE transportPreference preference2 tcp
commit
```

## 7.4.8 Signaling Profile

Configure Signaling profile towards Google CES and PSTN Gateway as shown below.

### 7.4.8.1 PSTN Gateway

```
set profiles signaling ipSignalingProfile PSTN_IPSP ipProtocolType sipOnly
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
addPathServiceRoute disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
addPChargingFuncAddr disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
callHoldInterworking disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
clearmodeForDataCalls disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
createPChargingVector disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
createPathHeader disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
createServiceRouteHeader disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
customizedSessionTimerBehavior disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
disableAlsoHeader disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
disableHostTranslation disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
disableMediaLockDown disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
disableReferToUriParameters disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
discardReceivedReasonHeader disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
doNotIncludeSsAttributeInReInvite disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
enableDefaultPUIProcedures disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
enableDialStringHandling disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
endToEndBye disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
endToEndReInvite disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
endToEndUpdate disable
set profiles signaling ipSignalingProfile PSTN_IPSP commonIpAttributes flags
endToEndPrack disable
```

set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
includeIpPortsInFromAndToHeaders disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
includeReasonHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
includeSsAttributeInInitialInvite disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
includeTransportTypeInContactHeader enable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
insertPeerAddressAsTopRouteHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
mapCauseLocation disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
mapSuspendResumeEventInPSvcInfoHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
mapUuiInPSigInfoHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
mimeCausePrecedeReasonHeaderCause disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
minimizeRelayingOfMediaChangesFromOtherCallLegAll disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
noContentDisposition disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
noPortNumber5060 disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
noUserInfoInContactHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
onlySelectedCodeInSessionRefresh disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
pCalledPartyIDSupport disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
pChgMsgInfo disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
publishIPInHoldSDP disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
rejectRefer disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
replaceHostOnViaHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
sendRTCPBandwidthInfo disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
reQueryPxxOnRegisterRefresh disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
validateAccessNwInfoHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
restrictHistoryInfoHeader disable

set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags routeUsingRecvdFqdn disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags sdpOlineOnlyCompares disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags sendAllAllowedCodecsForLateMediaInviteOrReInvite disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags sendDirectMediaInfoInSdpAttribute disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags sendPtimeInSdp disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags sessionTimerRefreshUpdate disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags setAcceptHeaderToApplicationSdpOnly disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags setOlineDash disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags setSessionVersionZero disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags setSlineDash disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags skipPsxQueryForRefer disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags storePathHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags storeServiceRouteHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags terminalPortabilityInterworking disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags sendRtcpPortInSdp disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags storePChargingFuncAddr disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags storePChargingVector enable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags createPVisitedNetworkId disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags lockDownPreferredCodec disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags sendOnlyPreferredCodec disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags suppressMinSelfNotReceived disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags usePsxRouteForRegisteredInvite disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags fromHeaderAnonymisation disable

set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
noServiceRouteHdrForEmergencyRegistration disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
insertPAccessNetworkInfo disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
contactTransparencyForIsFocusMediaTag disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
supportSCSCFRestorationProcedures disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
insertUEFlowInfo disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
acceptAlertInfo disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
aiToPemInterworking disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
sendSBCSupportedCodecsForLateMediaRelInvite disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
selectCoreStreamForMultiStreamAudioOrImageCall disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
mapDpmToSendrecvForInitialDialog disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
suppressReferRelayFromOtherLeg disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes flags  
supportCallInfoWithSipCause608Rfc8688 disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
callTransferFlags handleIpAddressesNotPresentInNetworkSelectorTableNst  
routeViaTransferringIptg  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
callTransferFlags forceReRouteViaPsxQuery disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
callTransferFlags skipReRouteViaPsxQuery disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
optionTagInRequireHeader suppressReplaceTag disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
optionTagInSupportedHeader suppressReplaceTag disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes preconditions  
State disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags  
dialogEventPackage disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags  
dtmfBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags info  
disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags  
message disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags notify  
disable

set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags options disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags regEventPackage disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags refer disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags sonusMediaBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags statusCode3xx disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags statusCode4xx6xx disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags relayPemTokens disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags thirdPartyBodies disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags force503to500Relay disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags publish disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags updateWithoutSdp disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags conferenceEventPackage disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags reasonPhrase4xx6xx disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes relayFlags referToHeaderRelay rejectReferIfnoMatchForcallId  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes transparencyFlags acceptContactHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes transparencyFlags alertInformationHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes transparencyFlags authcodeHeaders disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes transparencyFlags passCompleteContactHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes transparencyFlags contactHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes transparencyFlags errorInfo disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes transparencyFlags fromHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes transparencyFlags historyInfo disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes transparencyFlags maxForwardsHeader disable

set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags mwiBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags pAccessNetworkInfoHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags pCalledPartyID disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags pChargingVectorHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags pEarlyMedia disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags pVisitedNetworkIDHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags pathHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags pidfDiffBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags qsigBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags reasonHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags referredByHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags requestURI disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags routeHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags serviceRouteHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags sipBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags sipfragBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags toHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags toneBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags unknownBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags unknownHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags userToUserHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags viaHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags geolocation disable

set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags geolocationRouting disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags geolocationError disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags acceptHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags callInfoHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags resourcePriorityOptionTag disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags simpleFilterBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags pidfBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags watcherInfoBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags rlmBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags externalBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags warningHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags userAgentHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags serverHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags acceptLanguageHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
transparencyFlags resourceListBody disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
headerEncryptionFlags encryptPathHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
headerEncryptionFlags encryptServiceRouteHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
subscriptionPackageSupport supportRegEvent disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
subscriptionPackageSupport usePSXRouteForSBCInitiatedSubscribe disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP commonIpAttributes  
registrarRecovery registerToAlternateOnPrimaryDown disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
bgcfTargetSchemeTransparency disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
convertInactiveToSendrecv disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
disable2806Compliance disable



set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
disableOptionalRegisterParameters disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
addLoopBackRouteHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
map181Or182MessageTo183 disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
map3xxContactUriToRouteHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
mapContractorNumberInPSigInfoHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
transitPAIFromUnregisteredPeer disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
suppressUnregister disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
ttclsupMapping disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
useCalledPartyInRequestUri disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
useColonInSdpMediaTypeParameter disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
validateSubAddress disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
qosBasedRouting disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
ignoreSdpAfterOfferAnswerCompleted disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
includeEnumParameters disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
monitorRtpOnEgressUpdate disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
enable3261CancelHandling disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes flags  
purposeJcardIcon disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes bci  
bciInterworkEncountered disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes bci bcilsdnAddress  
disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes domainName  
useSipDomainNameInFromField disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes domainName  
useSipDomainNameInRequestUri disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes domainName  
useZoneLevelDomainNameInContact disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes domainName  
useIpSignalingPeerDomainInRequestUri disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes domainName useZoneLevelDomainNameInPathHdr disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes domainName useSipDomainInPAIHeader disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes isub allowNsapSub disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes isub allowUserSpecifiedSub disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes isub includeCalledPartySub disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes isub includeCallingPartySub disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes numberPortabilityAttributes npdiOptions includeNpdiYes  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes numberPortabilityAttributes disableRn disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes privacy transparency disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes privacy privacyInformation pPreferredId  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes privacy flags includePrivacy enable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes privacy flags privacyRequiredByProxy disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes privacy flags msLyncPrivacySupport disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes privacy flags includeEmbeddedPAIheaderInRedirectedInvite disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes redirect mode acceptRedirection  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes redirect contactHandling mergeReceivedContacts  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes redirect flags skipCrankbackProfileAndAlwaysCrankback disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes redirect flags forceRequeryForRedirection disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes redirect flags relayUnusedContactParams disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes redirect flags honorEmbeddedHeadersIn3xx disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes redirect flags enhancedLocalRedirection disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes redirect flags skipDTGLookupFor3xxContact disable  
set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes redirect flags sendEmbeddedHeadersfromFirst3xxContact disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters callForwarding diversionHistoryInfoInterworking disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters callForwarding dataMapping diversion

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters callForwarding diversionHeaderTransparency disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters callForwarding historyInformation includeHistoryInformation disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters includeChargeInformation includeNone

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters sipToHeaderMapping none

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters destinationTrunkGroupOptions includeNone

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters originatingTrunkGroupOptions includeNone

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters generateCallIdUsing doNotUseIngressCallId

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters flags includeCic disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters flags includeCpcInformation disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters flags includeNpi disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters flags includeOlip disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters flags includePKAdn disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters flags includePstnParameters disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters flags includeQvalue disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters flags skipCSeqCheckInEarlyDialog disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters flags transparencyForDestinationTrunkGroupParameter disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes sipHeadersAndParameters flags endToEndAck disable

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes transport type1 tcp

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes transport type2 none

set profiles signaling ipSignalingProfile PSTN\_IPSP egressIpAttributes transport type3 none

```
set profiles signaling ipSignalingProfile PSTN_IPSP egressIpAttributes transport type4
none
set profiles signaling ipSignalingProfile PSTN_IPSP egressIpAttributes sipCauseMapping
internalToSipCauseMappingProfileName ""
set profiles signaling ipSignalingProfile PSTN_IPSP egressIpAttributes sipCauseMapping
sipToInternalCauseMappingProfileName ""
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes flags
sip181Supported disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes flags
sip182Supported disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes flags
mapCalledPartyCategoryInPSigInfoHeader disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes flags
noSdpIn180Supported disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes flags
registrationExpiresInExpiresHeader disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes flags
send183OnInitiatingDisconnectTreatment disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes flags
sendSdpIn200OkIf18xReliable disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes flags
sendSdpInSubsequent18x disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes flags
sendTLSConnectionFailureResponse disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes flags
suppress183For3xxRedirectResponse disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes flags
suppress183WithoutSdp disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes flags
set-cut-through-indication-in-OBCI disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes flags
sendUpdatedSDPin200Ok disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes carrierInformation
generateTerminatingCa disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes carrierInformation
generateTerminatingCic disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes
ingressHistoryInformation supportRFC7044Ingress disable
set profiles signaling ipSignalingProfile PSTN_IPSP ingressIpAttributes
ingressHistoryInformation applyHistoryInfoPrivacyIngress disable
set profiles signaling ipSignalingProfile PSTN_IPSP trfParameters preferredMrbUri ""
set profiles signaling ipSignalingProfile PSTN_IPSP trfParameters preferredTrfUri ""
commit
```

### 7.4.8.3 Google CES

```
set profiles signaling ipSignalingProfile GOOGLE_IPSP ipProtocolType sipOnly
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
addPathServiceRoute disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
addPChargingFuncAddr disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
callHoldInterworking disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
clearmodeForDataCalls disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
createPChargingVector disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
createPathHeader disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
createServiceRouteHeader disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
customizedSessionTimerBehavior enable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
disableAlsoHeader disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
disableHostTranslation disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
disableMediaLockDown disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
disableReferToUriParameters disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
discardReceivedReasonHeader disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
doNotIncludeSsAttributeInRelInvite disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
enableDefaultPUIProcedures disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
enableDialStringHandling disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
endToEndBye disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
endToEndRelInvite disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
endToEndUpdate disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
endToEndPrack disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
includeIpPortsInFromAndToHeaders disable
set profiles signaling ipSignalingProfile GOOGLE_IPSP commonIpAttributes flags
includeReasonHeader disable
```

set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
includeSsAttributeInInitialInvite disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
includeTransportTypeInContactHeader enable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
insertPeerAddressAsTopRouteHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
mapCauseLocation disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
mapSuspendResumeEventInPsvclInfoHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
mapUuiInPSigInfoHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
mimeCausePrecedeReasonHeaderCause disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
minimizeRelayingOfMediaChangesFromOtherCallLegAll disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
noContentDisposition disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
noPortNumber5060 disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
noUserinfoInContactHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
onlySelectedCodeInSessionRefresh disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
pCalledPartyIDSupport disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
pChgMsgInfo disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
publishIPInHoldSDP disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
rejectRefer disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
replaceHostOnViaHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
sendRTCPBandwidthInfo disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
reQueryPxxOnRegisterRefresh disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
validateAccessNwInfoHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
restrictHistoryInfoHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
routeUsingRecvdFqdn disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
sdpOlineOnlyCompares disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
sendAllAllowedCodecsForLateMediaInviteOrReInvite disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
sendDirectMediaInfoInSdpAttribute disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
sendPtimeInSdp disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
sessionTimerRefreshUpdate enable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
setAcceptHeaderToApplicationSdpOnly disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
setOlineDash disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
setSessionVersionZero disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
setSlineDash disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
skipPxxQueryForRefer disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
storePathHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
storeServiceRouteHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
terminalPortabilityInterworking disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
sendRtcpPortInSdp disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
storePChargingFuncAddr disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
storePChargingVector enable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
createPVisitedNetworkId disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
lockDownPreferredCodec disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
sendOnlyPreferredCodec disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
suppressMinSelfNotReceived disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
usePxxRouteForRegisteredInvite disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
fromHeaderAnonymisation disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
noServiceRouteHdrForEmergencyRegistration disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
insertPAccessNetworkInfo disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
contactTransparencyForIsFocusMediaTag disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
supportSCSCFRestorationProcedures disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
insertUEFlowInfo disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
acceptAlertInfo disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
aiToPemInterworking disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
sendSBCSupportedCodecsForLateMediaReInvite disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
selectCoreStreamForMultiStreamAudioOrImageCall disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
mapDpmToSendrecvForInitialDialog disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
suppressReferRelayFromOtherLeg disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes flags  
supportCallInfoWithSipCause608Rfc8688 disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
callTransferFlags handleIpAddressesNotPresentInNetworkSelectorTableNst  
routeViaTransferringIptg  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
callTransferFlags forceReRouteViaPsxQuery disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
callTransferFlags skipReRouteViaPsxQuery disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
optionTagInRequireHeader suppressReplaceTag disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
optionTagInSupportedHeader suppressReplaceTag disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
preconditions State disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags  
dialogEventPackage disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags  
dtmfBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags  
info disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags  
message disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags  
notify disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags  
options disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags  
regEventPackage disable



set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags refer disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags sonusMediaBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags statusCode3xx disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags statusCode4xx6xx disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags relayPemTokens disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags thirdPartyBodies disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags force503to500Relay disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags publish disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags updateWithoutSdp disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags conferenceEventPackage disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags reasonPhrase4xx6xx disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes relayFlags referToHeaderRelay rejectReferIfnoMatchForcallId  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes transparencyFlags acceptContactHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes transparencyFlags alertInformationHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes transparencyFlags authcodeHeaders disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes transparencyFlags passCompleteContactHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes transparencyFlags contactHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes transparencyFlags errorInfo disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes transparencyFlags fromHeader enable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes transparencyFlags historyInfo disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes transparencyFlags maxForwardsHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes transparencyFlags mwiBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes transparencyFlags pAccessNetworkInfoHeader disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags pCalledPartyID disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags pChargingVectorHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags pEarlyMedia disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags pVisitedNetworkIDHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags pathHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags pidfDiffBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags qsigBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags reasonHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags referredByHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags requestURI enable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags routeHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags serviceRouteHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags sipBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags sipfragBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags toHeader enable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags toneBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags unknownBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags unknownHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags userToUserHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags viaHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags geolocation disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags geolocationRouting disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags geolocationError disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags acceptHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags callInfoHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags resourcePriorityOptionTag disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags simpleFilterBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags pidfBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags watcherInfoBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags rlmBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags externalBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags warningHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags userAgentHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags serverHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags acceptLanguageHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
transparencyFlags resourceListBody disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
headerEncryptionFlags encryptPathHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
headerEncryptionFlags encryptServiceRouteHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
subscriptionPackageSupport supportRegEvent disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
subscriptionPackageSupport usePSXRouteForSBCInitiatedSubscribe disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP commonIpAttributes  
registrarRecovery registerToAlternateOnPrimaryDown disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes  
numberGlobalizationProfile DEFAULT\_IP  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes  
phoneContextParameterLength 0  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
bgcfTargetSchemeTransparency disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
convertInactiveToSendrecv disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
disable2806Compliance disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
disableOptionalRegisterParameters disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
addLoopBackRouteHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
map181Or182MessageTo183 disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
map3xxContactUriToRouteHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
mapContractorNumberInPSigInfoHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
transitPAIFromUnregisteredPeer disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
suppressUnregister disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
ttclsupMapping disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
useCalledPartyInRequestUri disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
useColonInSdpMediaTypeParameter disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
validateSubAddress disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
qosBasedRouting disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
ignoreSdpAfterOfferAnswerCompleted disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
includeEnumParameters disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
monitorRtpOnEgressUpdate disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
enable3261CancelHandling disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes flags  
purposeJcardIcon disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes bci  
bciInterworkEncountered disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes bci  
bcilsdnAddress disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes domainName  
useSipDomainNameInFromField disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes domainName  
useSipDomainNameInRequestUri disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes domainName  
useZoneLevelDomainNameInContact disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes domainName  
useIpSignalingPeerDomainInRequestUri disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes domainName useZoneLevelDomainNameInPathHdr disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes domainName useSipDomainInPAIHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes isub allowNsapSub disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes isub allowUserSpecifiedSub disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes isub includeCalledPartySub disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes isub includeCallingPartySub disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes numberPortabilityAttributes npdiOptions includeNpdiYes  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes numberPortabilityAttributes disableRn disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes privacy transparency disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes privacy privacyInformation pAssertedId  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes privacy flags includePrivacy enable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes privacy flags privacyRequiredByProxy disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes privacy flags msLyncPrivacySupport disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes privacy flags includeEmbeddedPAIheaderInRedirectedInvite disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes redirect mode acceptRedirection  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes redirect contactHandling mergeReceivedContacts  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes redirect flags skipCrankbackProfileAndAlwaysCrankback disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes redirect flags forceRequeryForRedirection disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes redirect flags relayUnusedContactParams disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes redirect flags honorEmbeddedHeadersIn3xx disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes redirect flags enhancedLocalRedirection disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes redirect flags skipDTGLookupFor3xxContact disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes redirect flags sendEmbeddedHeadersfromFirst3xxContact disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters callForwarding diversionHistoryInfoInterworking disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters callForwarding dataMapping diversion

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters callForwarding diversionHeaderTransparency disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters callForwarding historyInformation includeHistoryInformation disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters includeChargeInformation includeNone

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters sessionExpiresRefresher uac

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters sipToHeaderMapping none

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters destinationTrunkGroupOptions includeNone

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters originatingTrunkGroupOptions includeNone

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters generateCallIdUsing doNotUseIngressCallId

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters flags includeCic disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters flags includeCpcInformation disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters flags includeNpi disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters flags includeOlip disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters flags includePKAdn disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters flags includePstnParameters disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters flags includeQvalue disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters flags skipCSeqCheckInEarlyDialog disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters flags transparencyForDestinationTrunkGroupParameter disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipHeadersAndParameters flags endToEndAck disable

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes transport type1 tlsOverTcp

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes transport type2 none

set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes transport type3 none  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes transport type4 none  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipCauseMapping internalToSipCauseMappingProfileName ""  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP egressIpAttributes sipCauseMapping sipToInternalCauseMappingProfileName ""  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes flags sip181Supported disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes flags sip182Supported disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes flags mapCalledPartyCategoryInPSigInfoHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes flags noSdpIn180Supported disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes flags registrationExpiresinExpiresHeader disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes flags send183OnInitiatingDisconnectTreatment disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes flags sendSdpIn200OkIf18xReliable disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes flags sendSdpInSubsequent18x disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes flags sendTLSConnectionFailureResponse disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes flags suppress183For3xxRedirectResponse disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes flags suppress183WithoutSdp disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes flags set-cut-through-indication-in-OBCI disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes flags sendUpdatedSDPin200Ok disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes carrierInformation generateTerminatingCa disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes carrierInformation generateTerminatingCic disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes ingressHistoryInformation supportRFC7044Ingress disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP ingressIpAttributes ingressHistoryInformation applyHistoryInfoPrivacyIngress disable  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP trfParameters preferredMrbUri ""  
set profiles signaling ipSignalingProfile GOOGLE\_IPSP trfParameters preferredTrfUri ""  
commit

## 7.4.9 Codec

Configure Codec settings as shown below.

```
set profiles media codecEntry G711-U codec g711
set profiles media codecEntry G711-U packetSize 20
set profiles media codecEntry G711-U fax failureHandling continue
set profiles media codecEntry G711-U fax toneTreatment faxRelayOrFallbackToG711
set profiles media codecEntry G711-U fax honorToneDetection disable
set profiles media codecEntry G711-U modem failureHandling continue
set profiles media codecEntry G711-U modem toneTreatment fallbackToG711
set profiles media codecEntry G711-U modem honorToneDetection disable
set profiles media codecEntry G711-U law ULaw
set profiles media codecEntry G711-U dtmf relay rfc2833
set profiles media codecEntry G711-U dtmf removeDigits enable
```

```
set profiles media codecEntry G711-A codec g711
set profiles media codecEntry G711-A packetSize 20
set profiles media codecEntry G711-A fax failureHandling continue
set profiles media codecEntry G711-A fax toneTreatment faxRelayOrFallbackToG711
set profiles media codecEntry G711-A fax honorToneDetection disable
set profiles media codecEntry G711-A modem failureHandling continue
set profiles media codecEntry G711-A modem toneTreatment fallbackToG711
set profiles media codecEntry G711-A modem honorToneDetection disable
set profiles media codecEntry G711-A law ALaw
set profiles media codecEntry G711-A dtmf relay rfc2833
set profiles media codecEntry G711-A dtmf removeDigits enable
commit
```



## 7.4.10 Packet Service Profile

Configure Packet Service profile towards Google CES and PSTN Gateway as shown below.

### 7.4.10.1 PSTN Gateway

```
set profiles media packetServiceProfile DEFAULT dataCalls
preferredRtpDataPayloadType 56
set profiles media packetServiceProfile DEFAULT dataCalls initialPlayoutBufferDelay 50
set profiles media packetServiceProfile DEFAULT dataCalls packetSize 20
set profiles media packetServiceProfile DEFAULT silenceFactor 40
set profiles media packetServiceProfile DEFAULT typeOfService 0
set profiles media packetServiceProfile DEFAULT voiceInitialPlayoutBufferDelay 10
set profiles media packetServiceProfile DEFAULT rtcpOptions rtcp disable
set profiles media packetServiceProfile DEFAULT peerAbsenceAction none
set profiles media packetServiceProfile DEFAULT silenceInsertionDescriptor
g711SidRtpPayloadType 19
set profiles media packetServiceProfile DEFAULT silenceInsertionDescriptor heartbeat
enable
set profiles media packetServiceProfile DEFAULT aal1PayloadSize 47
set profiles media packetServiceProfile DEFAULT codec codecEntry1 G711-U
set profiles media packetServiceProfile DEFAULT codec codecEntry2 G711-A
set profiles media packetServiceProfile DEFAULT packetToPacketControl transcode
conditional
set profiles media packetServiceProfile DEFAULT packetToPacketControl
conditionsInAdditionToNoCommonCodec applyFaxToneTreatment disable
set profiles media packetServiceProfile DEFAULT packetToPacketControl
conditionsInAdditionToNoCommonCodec differentDtmfRelay disable
set profiles media packetServiceProfile DEFAULT packetToPacketControl
conditionsInAdditionToNoCommonCodec differentPacketSize disable
set profiles media packetServiceProfile DEFAULT packetToPacketControl
conditionsInAdditionToNoCommonCodec differentSilenceSuppression disable
set profiles media packetServiceProfile DEFAULT packetToPacketControl
conditionsInAdditionToNoCommonCodec honorOfferPreference disable
set profiles media packetServiceProfile DEFAULT packetToPacketControl
conditionsInAdditionToNoCommonCodec honorAnswerPreference disable
set profiles media packetServiceProfile DEFAULT packetToPacketControl
conditionsInAdditionToNoCommonCodec different2833PayloadType disable
set profiles media packetServiceProfile DEFAULT packetToPacketControl
codecsAllowedForTranscoding thisLeg ""
set profiles media packetServiceProfile DEFAULT packetToPacketControl
codecsAllowedForTranscoding otherLeg ""
set profiles media packetServiceProfile DEFAULT flags disallowDataCalls disable
set profiles media packetServiceProfile DEFAULT flags digitDetectSendEnabled disable
set profiles media packetServiceProfile DEFAULT flags useDirectMedia disable
```

```

set profiles media packetServiceProfile DEFAULT flags
validatePeerSupportForDtmfEvents disable
set profiles media packetServiceProfile DEFAULT flags
interworkDtmfWithoutTranscoding disable
set profiles media packetServiceProfile DEFAULT flags dscpPassthrough disable
set profiles media packetServiceProfile DEFAULT flags ssrcRandomize disable
set profiles media packetServiceProfile DEFAULT flags HDCodecPreferred disable
set profiles media packetServiceProfile DEFAULT flags
MatchOfferedCodecGroupIfNbOnly disable
set profiles media packetServiceProfile DEFAULT flags forceRoutePSPOrder disable
set profiles media packetServiceProfile DEFAULT flags
generateAndSignalSSRCAndCname disable
set profiles media packetServiceProfile DEFAULT flags mediaLockDownForPassThrough
disable
set profiles media packetServiceProfile DEFAULT flags
reserveBwForPreferredAudioCommonCodec disable
set profiles media packetServiceProfile DEFAULT flags policeOnHeaviestAudioCodec
disable
set profiles media packetServiceProfile DEFAULT flags t140Call disable
set profiles media packetServiceProfile DEFAULT flags
allowAudioTranscodeForMultiStreamCall disable
set profiles media packetServiceProfile DEFAULT flags vtpSupport disable
set profiles media packetServiceProfile DEFAULT flags ssrcRandomizeForSrtp disable
set profiles media packetServiceProfile DEFAULT flags g711T140BaudotAdapt disable
set profiles media packetServiceProfile DEFAULT flags validateRtpHeader disable
set profiles media packetServiceProfile DEFAULT t38 dataRateManagementType
type2TransferOfTcf
set profiles media packetServiceProfile DEFAULT t38 ecm ecmPreferred disable
set profiles media packetServiceProfile DEFAULT t38
lowSpeedNumberOfRedundantPackets 1
set profiles media packetServiceProfile DEFAULT t38 maxBitRate 14.4Kbits_s
set profiles media packetServiceProfile DEFAULT t38 numberOfRedundantPackets 1
set profiles media packetServiceProfile DEFAULT t38 protocolVersion 0
set profiles media packetServiceProfile DEFAULT secureRtpRtcp flags allowFallback
disable
set profiles media packetServiceProfile DEFAULT secureRtpRtcp flags enableSrtp
disable
set profiles media packetServiceProfile DEFAULT secureRtpRtcp flags
resetROCOOnKeyChange disable
set profiles media packetServiceProfile DEFAULT secureRtpRtcp flags
resetEncDecROCOOnDecKeyChange disable
set profiles media packetServiceProfile DEFAULT secureRtpRtcp flags
updateCryptoKeysOnModify disable
set profiles media packetServiceProfile DEFAULT secureRtpRtcp flags allowPassthru
disable
set profiles media packetServiceProfile DEFAULT
preferredRtpPayloadTypeForDtmfRelay 128

```

```

set profiles media packetServiceProfile DEFAULT videoCalls maxVideoBandwidth 0
set profiles media packetServiceProfile DEFAULT videoCalls
videoBandwidthReductionFactor 0
set profiles media packetServiceProfile DEFAULT videoCalls ipv4Tos 0
set profiles media packetServiceProfile DEFAULT videoCalls ipv6TrafficClass 0
set profiles media packetServiceProfile DEFAULT videoCalls ieee8021QVLanCos 0
set profiles media packetServiceProfile DEFAULT videoCalls
audioOnlyIfVideolsPrevented enable
set profiles media packetServiceProfile DEFAULT qosValues msrpDscp 0
set profiles media packetServiceProfile DEFAULT qosValues dtlsSctpDscp 0
set profiles media packetServiceProfile DEFAULT qosValues t140Dscp 0
set profiles media packetServiceProfile DEFAULT qosValues applicationDscp 0
set profiles media packetServiceProfile DEFAULT nonRtpStream maxNonRtpBandwidth
0
set profiles media packetServiceProfile DEFAULT audioTransparency
unknownCodecPacketSize 10
set profiles media packetServiceProfile DEFAULT audioTransparency
unknownCodecBitRate 124
set profiles media packetServiceProfile DEFAULT mediaPacketCos 0
set profiles media packetServiceProfile DEFAULT honorRemotePrecedence disable
set profiles media packetServiceProfile DEFAULT sendRoutePSPPrecedence disable
set profiles media packetServiceProfile DEFAULT dtls dtlsFlags allowDtIsFallback disable
set profiles media packetServiceProfile DEFAULT dtls dtlsFlags enableDtIsSrtp disable
set profiles media packetServiceProfile DEFAULT dtls dtlsFlags dtlsSctpRelay disable
set profiles media packetServiceProfile DEFAULT prohibitedCodecList none
commit

```

#### 7.4.10.2 Google CES

```

set profiles media packetServiceProfile GOOGLE_PSP dataCalls
preferredRtpDataPayloadType 56
set profiles media packetServiceProfile GOOGLE_PSP dataCalls
initialPlayoutBufferDelay 50
set profiles media packetServiceProfile GOOGLE_PSP dataCalls packetSize 20
set profiles media packetServiceProfile GOOGLE_PSP silenceFactor 40
set profiles media packetServiceProfile GOOGLE_PSP typeOfService 0
set profiles media packetServiceProfile GOOGLE_PSP voiceInitialPlayoutBufferDelay 10
set profiles media packetServiceProfile GOOGLE_PSP rtpOptions rtp enable
set profiles media packetServiceProfile GOOGLE_PSP rtpOptions
terminationForPassthrough disable
set profiles media packetServiceProfile GOOGLE_PSP rtpOptions
enableRTCPForHeldCalls disable
set profiles media packetServiceProfile GOOGLE_PSP rtpOptions rtpMux enable
set profiles media packetServiceProfile GOOGLE_PSP rtpOptions
packetLossThreshold 0
set profiles media packetServiceProfile GOOGLE_PSP rtpOptions rrBandwidth 250
set profiles media packetServiceProfile GOOGLE_PSP rtpOptions rsBandwidth 250

```

set profiles media packetServiceProfile GOOGLE\_PSP rtcpOptions packetLossAction none  
set profiles media packetServiceProfile GOOGLE\_PSP rtcpOptions rtcpXr disable  
set profiles media packetServiceProfile GOOGLE\_PSP rtcpOptions generateRtcpForT140IfNotReceivedFromOtherLeg disable  
set profiles media packetServiceProfile GOOGLE\_PSP peerAbsenceAction none  
set profiles media packetServiceProfile GOOGLE\_PSP silenceInsertionDescriptor g711SidRtpPayloadType 13  
set profiles media packetServiceProfile GOOGLE\_PSP silenceInsertionDescriptor heartbeat enable  
set profiles media packetServiceProfile GOOGLE\_PSP aal1PayloadSize 47  
set profiles media packetServiceProfile GOOGLE\_PSP codec codecEntry1 G711-U  
set profiles media packetServiceProfile GOOGLE\_PSP codec codecEntry2 G711-A  
set profiles media packetServiceProfile GOOGLE\_PSP codec codecEntry3 OPUS  
set profiles media packetServiceProfile GOOGLE\_PSP codec codecEntry4 G722  
set profiles media packetServiceProfile GOOGLE\_PSP packetToPacketControl transcode conditional  
set profiles media packetServiceProfile GOOGLE\_PSP packetToPacketControl conditionsInAdditionToNoCommonCodec applyFaxToneTreatment disable  
set profiles media packetServiceProfile GOOGLE\_PSP packetToPacketControl conditionsInAdditionToNoCommonCodec differentDtmfRelay disable  
set profiles media packetServiceProfile GOOGLE\_PSP packetToPacketControl conditionsInAdditionToNoCommonCodec differentPacketSize disable  
set profiles media packetServiceProfile GOOGLE\_PSP packetToPacketControl conditionsInAdditionToNoCommonCodec differentSilenceSuppression disable  
set profiles media packetServiceProfile GOOGLE\_PSP packetToPacketControl conditionsInAdditionToNoCommonCodec honorOfferPreference disable  
set profiles media packetServiceProfile GOOGLE\_PSP packetToPacketControl conditionsInAdditionToNoCommonCodec honorAnswerPreference disable  
set profiles media packetServiceProfile GOOGLE\_PSP packetToPacketControl conditionsInAdditionToNoCommonCodec different2833PayloadType disable  
set profiles media packetServiceProfile GOOGLE\_PSP packetToPacketControl codecsAllowedForTranscoding thisLeg g711a,g711u,g722,opus  
set profiles media packetServiceProfile GOOGLE\_PSP packetToPacketControl codecsAllowedForTranscoding otherLeg g711a,g711u,g722,opus  
set profiles media packetServiceProfile GOOGLE\_PSP flags disallowDataCalls disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags digitDetectSendEnabled disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags useDirectMedia disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags validatePeerSupportForDtmfEvents disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags interworkDtmfWithoutTranscoding disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags dscpPassthrough disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags ssrcRandomize disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags HDCCodecPreferred disable

set profiles media packetServiceProfile GOOGLE\_PSP flags  
MatchOfferedCodecGroupIfNbOnly disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags forceRoutePSPOrder  
disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags  
generateAndSignalSSRCAndCname disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags  
mediaLockDownForPassThrough disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags  
reserveBwForPreferredAudioCommonCodec disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags  
policeOnHeaviestAudioCodec disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags t140Call disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags  
allowAudioTranscodeForMultiStreamCall disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags vtpSupport disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags ssrcRandomizeForSrtsp  
enable  
set profiles media packetServiceProfile GOOGLE\_PSP flags g711T140BaudotAdapt  
disable  
set profiles media packetServiceProfile GOOGLE\_PSP flags validateRtpHeader disable  
set profiles media packetServiceProfile GOOGLE\_PSP t38 dataRateManagementType  
type2TransferOfTcf  
set profiles media packetServiceProfile GOOGLE\_PSP t38 ecm ecmPreferred disable  
set profiles media packetServiceProfile GOOGLE\_PSP t38  
lowSpeedNumberOfRedundantPackets 1  
set profiles media packetServiceProfile GOOGLE\_PSP t38 maxBitRate 14.4Kbits\_s  
set profiles media packetServiceProfile GOOGLE\_PSP t38 numberOfRedundantPackets  
1  
set profiles media packetServiceProfile GOOGLE\_PSP t38 protocolVersion 0  
set profiles media packetServiceProfile GOOGLE\_PSP secureRtpRtcp  
cryptoSuiteProfile DEFAULT  
set profiles media packetServiceProfile GOOGLE\_PSP secureRtpRtcp flags  
allowFallback disable  
set profiles media packetServiceProfile GOOGLE\_PSP secureRtpRtcp flags enableSrtsp  
disable  
set profiles media packetServiceProfile GOOGLE\_PSP secureRtpRtcp flags  
resetROCOOnKeyChange disable  
set profiles media packetServiceProfile GOOGLE\_PSP secureRtpRtcp flags  
resetEncDecROCOOnDecKeyChange disable  
set profiles media packetServiceProfile GOOGLE\_PSP secureRtpRtcp flags  
updateCryptoKeysOnModify disable  
set profiles media packetServiceProfile GOOGLE\_PSP secureRtpRtcp flags  
allowPassthru disable  
set profiles media packetServiceProfile GOOGLE\_PSP  
preferredRtpPayloadTypeForDtmfRelay 127  
set profiles media packetServiceProfile GOOGLE\_PSP videoCalls maxVideoBandwidth 0

```
set profiles media packetServiceProfile GOOGLE_PSP videoCalls
videoBandwidthReductionFactor 0
set profiles media packetServiceProfile GOOGLE_PSP videoCalls ipv4Tos 0
set profiles media packetServiceProfile GOOGLE_PSP videoCalls ipv6TrafficClass 0
set profiles media packetServiceProfile GOOGLE_PSP videoCalls ieee8021QVlanCos 0
set profiles media packetServiceProfile GOOGLE_PSP videoCalls
audioOnlyIfVideolsPrevented enable
set profiles media packetServiceProfile GOOGLE_PSP qosValues msrpDscp 0
set profiles media packetServiceProfile GOOGLE_PSP qosValues dtlsSctpDscp 0
set profiles media packetServiceProfile GOOGLE_PSP qosValues t140Dscp 0
set profiles media packetServiceProfile GOOGLE_PSP qosValues applicationDscp 0
set profiles media packetServiceProfile GOOGLE_PSP nonRtpStream
maxNonRtpBandwidth 0
set profiles media packetServiceProfile GOOGLE_PSP nonRtpStream
nonRtpTlsProfileName defaultTlsProfile
set profiles media packetServiceProfile GOOGLE_PSP audioTransparency
unknownCodecPacketSize 10
set profiles media packetServiceProfile GOOGLE_PSP audioTransparency
unknownCodecBitRate 124
set profiles media packetServiceProfile GOOGLE_PSP mediaPacketCos 0
set profiles media packetServiceProfile GOOGLE_PSP honorRemotePrecedence
disable
set profiles media packetServiceProfile GOOGLE_PSP sendRoutePSPPrecedence
disable
set profiles media packetServiceProfile GOOGLE_PSP dtls dtlsCryptoSuiteProfile
Google
set profiles media packetServiceProfile GOOGLE_PSP dtls dtlsFlags allowDtlsFallback
disable
set profiles media packetServiceProfile GOOGLE_PSP dtls dtlsFlags enableDtlsSrtp
disable
set profiles media packetServiceProfile GOOGLE_PSP dtls dtlsFlags dtlsSctpRelay
disable
set profiles media packetServiceProfile GOOGLE_PSP prohibitedCodeclList none
commit
```

### 7.4.11 Static Route

Configuring Static Route towards Google CES and PSTN Gateway as shown below.

```
set addressContext default staticRoute 0.0.0.0 0 192.65.X.X LIF2 PKT1_V4
set addressContext default staticRoute 10.64.X.X 16 10.80.X.X LIF1 PKT0_V4
set addressContext default staticRoute 10.80.X.X 16 10.80.X.X LIF1 PKT0_V4
commit
```

### 7.4.12 Routing Label

Configure Routing Label towards Google CES and PSTN Gateway as shown below.

#### **PSTN Gateway:**

```
set global callRouting routingLabel PSTN_RL overflowNumber ""
set global callRouting routingLabel PSTN_RL overflowNOA none
set global callRouting routingLabel PSTN_RL overflowNPI none
set global callRouting routingLabel PSTN_RL routePrioritizationType sequence
set global callRouting routingLabel PSTN_RL action routes
set global callRouting routingLabel PSTN_RL numRoutesPerCall 10
set global callRouting routingLabel PSTN_RL routingLabelRoute 2 routeType trunkGroup
set global callRouting routingLabel PSTN_RL routingLabelRoute 2 trunkGroup
PSTN_TRUNK
set global callRouting routingLabel PSTN_RL routingLabelRoute 2 ipPeer PSTN_IPP
set global callRouting routingLabel PSTN_RL routingLabelRoute 2 proportion 0
set global callRouting routingLabel PSTN_RL routingLabelRoute 2 cost 1000000
set global callRouting routingLabel PSTN_RL routingLabelRoute 2 inService inService
set global callRouting routingLabel PSTN_RL routingLabelRoute 2 testing normal
commit
```

#### **Google CES:**

```
set global callRouting routingLabel GOOGLE_RL overflowNumber ""
set global callRouting routingLabel GOOGLE_RL overflowNOA none
set global callRouting routingLabel GOOGLE_RL overflowNPI none
set global callRouting routingLabel GOOGLE_RL routePrioritizationType sequence
set global callRouting routingLabel GOOGLE_RL action routes
set global callRouting routingLabel GOOGLE_RL numRoutesPerCall 10
set global callRouting routingLabel GOOGLE_RL routingLabelRoute 0 routeType
trunkGroup
set global callRouting routingLabel GOOGLE_RL routingLabelRoute 0 trunkGroup
GOOGLE_TG
set global callRouting routingLabel GOOGLE_RL routingLabelRoute 0 ipPeer GOOGLE
set global callRouting routingLabel GOOGLE_RL routingLabelRoute 0 proportion 0
set global callRouting routingLabel GOOGLE_RL routingLabelRoute 0 cost 1000000
set global callRouting routingLabel GOOGLE_RL routingLabelRoute 0 inService
inService
```

```
set global callRouting routingLabel GOOGLE_RL routingLabelRoute 0 testing normal
commit
```



### 7.4.13 Route

Configure Route settings for Google CES and PSTN Gateway as shown below.

```
set global callRouting route none Sonus_NULL Sonus_NULL standard 972852XXXX 1 all  
all ALL none Sonus_NULL routingLabel GOOGLE_RL  
set global callRouting route none Sonus_NULL Sonus_NULL standard 214 1 all all ALL  
none Sonus_NULL routingLabel PSTN_RL
```

### 7.4.14 SIP Message Manipulations towards Google CES

Below are the SIP message manipulation rules created towards Google CES.

```
set profiles signaling sipAdaptorProfile Google_Agent_US state enabled  
set profiles signaling sipAdaptorProfile Google_Agent_US advancedSMM enabled
```

#### 7.4.13.1 Rule 1

Rule1 modifies the Request-URI.

- Rule1 matches the incoming Request-URI string "sip:SIPREC-SRS@74.125.X.X:5672" and replace with "sip:+ 1314944XXXX@us.telephony.goog:5672" for all instances.

```
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 applyMatchHeader one  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 criterion 1 type  
message  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 criterion 1 message  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 criterion 1 message  
messageTypes request  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 criterion 1 message  
methodTypes [ cancel invite ack ]  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 criterion 2 type header  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 criterion 2 header  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 criterion 2 header name  
request-line  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 criterion 2 header  
condition exist  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 criterion 2 header  
numberOfInstances number 1  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 criterion 2 header  
numberOfInstances qualifier equal  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 action 1 type header  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 action 1 operation  
regsub  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 action 1 headerInfo  
headerValue  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 action 1 from  
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 action 1 from type value
```

```
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 action 1 from value
sip:+1314944XXXX@us.telephony.goog:5672
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 action 1 to
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 action 1 to type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 action 1 to value
request-line
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 action 1 regexp
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 action 1 regexp string
sip:972852XXXX@us.telephony.goog:5672
set profiles signaling sipAdaptorProfile Google_Agent_US rule 1 action 1 regexp
matchInstance one
```

### 7.4.13.2 Rule 2

Rule 2 modifies the To header as per the requirements provided below.

- Rule 2 matches the incoming To header string "sip:SIPREC-SRS@74.125.X.X:5672" and replace with "sip:+ 1314944XXXX@us.telephony.goog:5672" for all instances.

```
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 applyMatchHeader one
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 criterion 1 type
message
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 criterion 1 message
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 criterion 1 message
messageTypes request
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 criterion 1 message
methodTypes [ cancel invite ack ]
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 criterion 2 type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 criterion 2 header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 criterion 2 header
name To
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 criterion 2 header
condition exist
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 criterion 2 header
numberOfInstances number 1
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 criterion 2 header
numberOfInstances qualifier equal
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 action 1 type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 action 1 operation
regsub
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 action 1 headerInfo
headerValue
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 action 1 from
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 action 1 from type
value
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 action 1 from value
sip:+1314944XXXX@us.telephony.goog:5672
```

```
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 action 1 to
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 action 1 to type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 action 1 to value To
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 action 1 regexp
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 action 1 regexp string
sip:972852XXXX@us.telephony.goog
set profiles signaling sipAdaptorProfile Google_Agent_US rule 2 action 1 regexp
matchInstance one
```

### 7.4.13.3 Rule 3

- Rule 3 adds Call-info header in the required format to the INVITE sent towards Google CES.
- Call-info:  
"<http://dialogflow.googleapis.com/v2beta1/projects/ccai-3898XX/conversations/RC\_XXXX>;purpose=Goog-ContactCenter-Conversation"
- RC\_XXXX present in Call-info header is an expression created to match the regular expression requirement provided by Google CES.
- XXXX will be replaced with a unique value in Rule 4

```
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 applyMatchHeader one
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 criterion 1 type
message
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 criterion 1 message
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 criterion 1 message
messageTypes request
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 criterion 1 message
methodTypes [ invite ]
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 criterion 2 type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 criterion 2 header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 criterion 2 header
name Call-ID
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 criterion 2 header
condition exist
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 criterion 2 header
hdrInstance one
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 1 type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 1 operation add
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 1 headerPosition
last
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 1 from
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 1 from type
value
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 1 from value
"<http://dialogflow.googleapis.com/v2beta1/projects/ccai-3898XX/conversations/RC_CA
LLID>;purpose=Goog-ContactCenter-Conversation"
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 1 to
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 1 to type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 1 to value
Call-info
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 2 type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 2 operation
regstore
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 2 headerInfo
headerValue
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 2 from
```

```
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 2 from type
header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 2 from value
Call-ID
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 2 to
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 2 to type
variable
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 2 to
variableValue var1
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 2 to
variableScopeValue local
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 2 regexp
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 2 regexp string
([a-zA-Z0-9]+)_([a-zA-Z0-9]+)
set profiles signaling sipAdaptorProfile Google_Agent_US rule 3 action 2 regexp
matchInstance one
```

#### 7.4.13.4 Rule 4

- Rule 4 modifies the XXXX parameter present in the Call-info header. The Conversation ID must be replaced instead of XXXX. In this rule, the Call-ID is collected and re-write it to the Conversation ID since it needs to be unique.

```
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 criterion 1 type
message
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 criterion 1 message
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 criterion 1 message
messageTypes requestAll
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 criterion 2 type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 criterion 2 header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 criterion 2 header
name Call-info
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 criterion 2 header
condition exist
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 criterion 2 header
hdrInstance all
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 action 1 type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 action 1 operation
regsub
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 action 1 headerInfo
headerValue
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 action 1 from
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 action 1 from type
variable
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 action 1 from
variableValue var1
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 action 1 to
```

```
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 action 1 to type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 action 1 to value
Call-info
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 action 1 regexp
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 action 1 regexp string
CALLID
set profiles signaling sipAdaptorProfile Google_Agent_US rule 4 action 1 regexp
matchInstance all
```

#### 7.4.13.5 Rule 5

- Rule 5 modifies the Session-Expires header and inserts value 1800;refresher=uac.

```
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 applyMatchHeader one
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 criterion 1 type
message
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 criterion 1 message
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 criterion 1 message
messageTypes request
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 criterion 1 message
methodTypes [ invite ]
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 criterion 2 type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 criterion 2 header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 criterion 2 header
name Session-Expires
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 criterion 2 header
condition exist
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 criterion 2 header
hdrInstance all
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 action 1 type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 action 1 operation
modify
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 action 1 headerInfo
headerValue
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 action 1 from
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 action 1 from type
value
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 action 1 from value
"1800;refresher=uac"
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 action 1 to
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 action 1 to type header
set profiles signaling sipAdaptorProfile Google_Agent_US rule 5 action 1 to value
Session-Expires
commit
```

## 7.4.15 SIP Manipulations from Google CES towards Agent

Below are the rules to modify incoming SIP message from Google CES during agent hand-off.

```
set profiles signaling sipAdaptorProfile Agent_PBX_Copy state enabled
set profiles signaling sipAdaptorProfile Agent_PBX_Copy advancedSMM enabled
set profiles signaling sipAdaptorProfile Agent_PBX_Copy profileType
messageManipulation
```

### Rule 1:

Rule 1 modifies the Request-URI.

- Rule 1 matches the incoming Request-URI string "+1972852XXXX@216.239.X.X:5672" and replace with "214242XXXX@10.64.X.X:5060;transport=tcp SIP/2.0" for all instances.

```
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 applyMatchHeader one
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 criterion 1 type message
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 criterion 1 message
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 criterion 1 message
messageTypes request
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 criterion 1 message
methodTypes [ cancel invite ack ]
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 criterion 2 type header
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 criterion 2 header
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 criterion 2 header name
request-line
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 criterion 2 header
condition exist
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 criterion 2 header
hdrInstance all
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 action 1 type header
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 action 1 operation
modify
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 action 1 headerInfo
headerValue
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 action 1 from
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 action 1 from type
header
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 action 1 from value
"sip:214242XXXX@10.64.X.X:5060;transport=tcp SIP/2.0"
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 action 1 to
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 action 1 to type header
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 1 action 1 to value
request-line
```



## Rule 2:

Rule 2 modifies the To header.

- Rule1 matches the incoming To string "sip:+1972852XXXX@216.239.X.X:5672" and replace with "sip:214242XXXX@10.64.X.X" for all instances.

```
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 applyMatchHeader one
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 criterion 1 type message
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 criterion 1 message
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 criterion 1 message
messageTypes request
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 criterion 1 message
methodTypes [ cancel invite ack ]
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 criterion 2 type header
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 criterion 2 header
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 criterion 2 header name
To
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 criterion 2 header
condition exist
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 criterion 2 header
hdrInstance all
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 action 1 type header
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 action 1 operation
modify
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 action 1 headerInfo
headerValue
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 action 1 from
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 action 1 from type
header
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 action 1 from value
<sip:214242XXXX@10.64.1.72>
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 action 1 to
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 action 1 to type header
set profiles signaling sipAdaptorProfile Agent_PBX_Copy rule 2 action 1 to value To
commit
```

## 7.4.16 SIP Manipulations from Google CES (SIP REFER)

Below is the manipulation to modify Request-URI, To and REFER-To headers during call hand-off to an agent

```
set profiles signaling sipAdaptorProfile Agent_REFER state enabled
set profiles signaling sipAdaptorProfile Agent_REFER advancedSMM enabled
set profiles signaling sipAdaptorProfile Agent_REFER profileType messageManipulation
```

### Rule 1:

Rule 1 modifies the Request-URI.

- Rule 1 matches the incoming Request-URI string  
"sip:972852XXXX@192.65.X.X:5061;transport=tls SIP/2.0" and replace with  
"sip:214242XXXX@10.64.X.X:5060;transport=tcp SIP/2.0" for all instances.

```
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 applyMatchHeader one
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 criterion 1 type message
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 criterion 1 message
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 criterion 1 message
messageTypes requestAll
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 criterion 2 type header
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 criterion 2 header
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 criterion 2 header name
request-line
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 criterion 2 header condition
exist
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 criterion 2 header
numberOfInstances number 1
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 criterion 2 header
numberOfInstances qualifier equal
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 action 1 type header
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 action 1 operation modify
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 action 1 headerInfo
headerValue
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 action 1 from
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 action 1 from type header
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 action 1 from value
"sip:214242XXXX@10.64.X.X:5060;transport=tcp SIP/2.0"
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 action 1 to
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 action 1 to type header
set profiles signaling sipAdaptorProfile Agent_REFER rule 1 action 1 to value request-line
```

## Rule 2:

Rule 2 modifies the To header.

- Rule 2 matches the incoming To request string "sip:972852XXXX@us.telephony.goog" and replace with "sip:214242XXXX@10.64.X.X" for all instances.

```
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 applyMatchHeader one
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 criterion 1 type message
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 criterion 1 message
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 criterion 1 message
messageTypes requestAll
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 criterion 2 type header
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 criterion 2 header
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 criterion 2 header name To
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 criterion 2 header condition
exist
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 criterion 2 header
numberOfInstances number 1
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 criterion 2 header
numberOfInstances qualifier equal
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 action 1 type header
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 action 1 operation modify
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 action 1 headerInfo
headerValue
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 action 1 from
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 action 1 from type header
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 action 1 from value
<sip:214242XXXX@10.64.1.72>
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 action 1 to
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 action 1 to type header
set profiles signaling sipAdaptorProfile Agent_REFER rule 2 action 1 to value To
```

### Rule 3:

Rule 3 modifies the Refer-To header

- Rule 3 matches the incoming Refer-To request string "sip:+1972852XXXX@sip.google.com;user=phone" and replace with "sip:214242XXXX@sip.google.com;user=phone " for all instances.

```
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 applyMatchHeader one
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 criterion 1 type message
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 criterion 1 message
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 criterion 1 message
messageTypes requestAll
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 criterion 2 type header
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 criterion 2 header
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 criterion 2 header name
Refer-To
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 criterion 2 header condition
exist
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 criterion 2 header
hdrInstance all
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 action 1 type header
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 action 1 operation modify
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 action 1 headerInfo
headerValue
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 action 1 from
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 action 1 from type header
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 action 1 from value
"<sip:214242XXXX@sip.google.com;user=phone>"
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 action 1 to
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 action 1 to type header
set profiles signaling sipAdaptorProfile Agent_REFER rule 3 action 1 to value Refer-To
commit
```

#### 7.4.17 SIP Message Manipulations towards Google CES (UI Header)

- The Google CES URL is converted into Hexa encoded value and is added in the User-to-User header during Google CES Agent-Handoff.

##### The URL :

[http://dialogflow.googleapis.com/v2beta1/projects/ccai-3898XX/conversations/RC\\_QAZ](http://dialogflow.googleapis.com/v2beta1/projects/ccai-3898XX/conversations/RC_QAZ)

**Hexa Encoded:** 68XXXXX5A

- The hex-encoded value exceeds 128 characters, which violates the string length restriction to be added to the User-to-User header.
- In Rule 4 below, the hex-encoded value is divided into multiple segments; a portion is appended as a string, while the remaining part is stored in a variable (var1)

```
set profiles signaling sipAdaptorProfile Google_UUI state enabled
set profiles signaling sipAdaptorProfile Google_UUI advancedSMM enabled
set profiles signaling sipAdaptorProfile Google_UUI profileType messageManipulation
```

##### Rule 4:

```
set profiles signaling sipAdaptorProfile Google_UUI rule 4 applyMatchHeader one
set profiles signaling sipAdaptorProfile Google_UUI rule 4 criterion 1 type message
set profiles signaling sipAdaptorProfile Google_UUI rule 4 criterion 1 message
set profiles signaling sipAdaptorProfile Google_UUI rule 4 criterion 1 message
messageTypes request
set profiles signaling sipAdaptorProfile Google_UUI rule 4 criterion 1 message
methodTypes [ invite ]
set profiles signaling sipAdaptorProfile Google_UUI rule 4 criterion 2 type header
set profiles signaling sipAdaptorProfile Google_UUI rule 4 criterion 2 header
set profiles signaling sipAdaptorProfile Google_UUI rule 4 criterion 2 header name
User-to-User
set profiles signaling sipAdaptorProfile Google_UUI rule 4 criterion 2 header condition
absent
set profiles signaling sipAdaptorProfile Google_UUI rule 4 criterion 2 header
hdrInstance all
set profiles signaling sipAdaptorProfile Google_UUI rule 4 action 1 type header
set profiles signaling sipAdaptorProfile Google_UUI rule 4 action 1 operation add
set profiles signaling sipAdaptorProfile Google_UUI rule 4 action 1 headerPosition last
set profiles signaling sipAdaptorProfile Google_UUI rule 4 action 1 from
set profiles signaling sipAdaptorProfile Google_UUI rule 4 action 1 from type value
set profiles signaling sipAdaptorProfile Google_UUI rule 4 action 1 from value
68XXXXXX
set profiles signaling sipAdaptorProfile Google_UUI rule 4 action 1 to
set profiles signaling sipAdaptorProfile Google_UUI rule 4 action 1 to type header
set profiles signaling sipAdaptorProfile Google_UUI rule 4 action 1 to value User-to-User
set profiles signaling sipAdaptorProfile Google_UUI rule 4 action 2 type variable
set profiles signaling sipAdaptorProfile Google_UUI rule 4 action 2 operation store
```

set profiles signaling sipAdaptorProfile Google\_UUI rule 4 action 2 from  
set profiles signaling sipAdaptorProfile Google\_UUI rule 4 action 2 from type value  
set profiles signaling sipAdaptorProfile Google\_UUI rule 4 action 2 from value  
"XXX98;encoding=hex;Goog-ContactCenter-Conversation"  
set profiles signaling sipAdaptorProfile Google\_UUI rule 4 action 2 to  
set profiles signaling sipAdaptorProfile Google\_UUI rule 4 action 2 to type variable  
set profiles signaling sipAdaptorProfile Google\_UUI rule 4 action 2 to variableValue var1  
set profiles signaling sipAdaptorProfile Google\_UUI rule 4 action 2 to  
variableScopeValue local

#### **Rule 5:**

- In Rule 5, the partial string inserted in Rule 4 is matched, and the required signaling manipulation is performed to concatenate the stored variable (var1) with the matched string.

set profiles signaling sipAdaptorProfile Google\_UUI rule 5 applyMatchHeader one  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 criterion 1 type message  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 criterion 1 message  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 criterion 1 message  
messageTypes request  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 criterion 1 message  
methodTypes [ invite ]  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 criterion 2 type header  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 criterion 2 header  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 criterion 2 header name  
User-to-User  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 criterion 2 header condition  
exist  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 criterion 2 header  
hdrInstance all  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 action 1 type header  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 action 1 operation regappend  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 action 1 headerInfo  
headerValue  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 action 1 from  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 action 1 from type variable  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 action 1 from variableValue  
var1  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 action 1 to  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 action 1 to type header  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 action 1 to value User-to-User  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 action 1 regexp  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 action 1 regexp string 68XXXX  
set profiles signaling sipAdaptorProfile Google\_UUI rule 5 action 1 regexp  
matchInstance one  
commit

## 7.4.18 SIP LINK using TLS as Transport

### 7.4.18.1 Ribbon SWe Core certificate creation

- Login to Ribbon SWe Core SBC via Management IP <https://x.x.x.x/>
- Create a Certificate record for Ribbon SWE Core SBC as shown below.
- Navigate to Configuration  Security Configuration  PKI  Certificate.
- Click on +New Certificate.

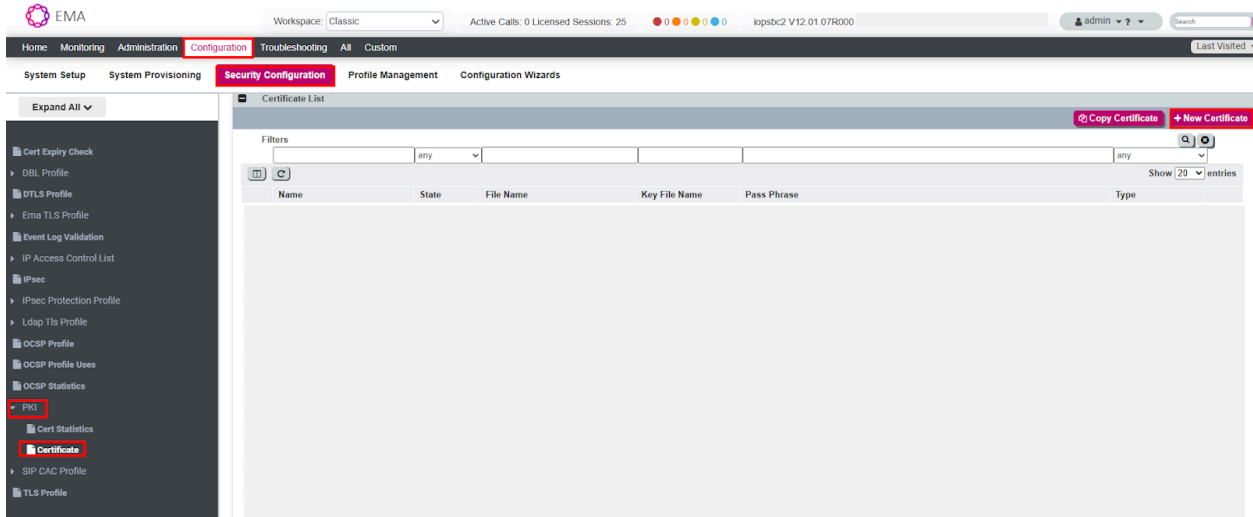


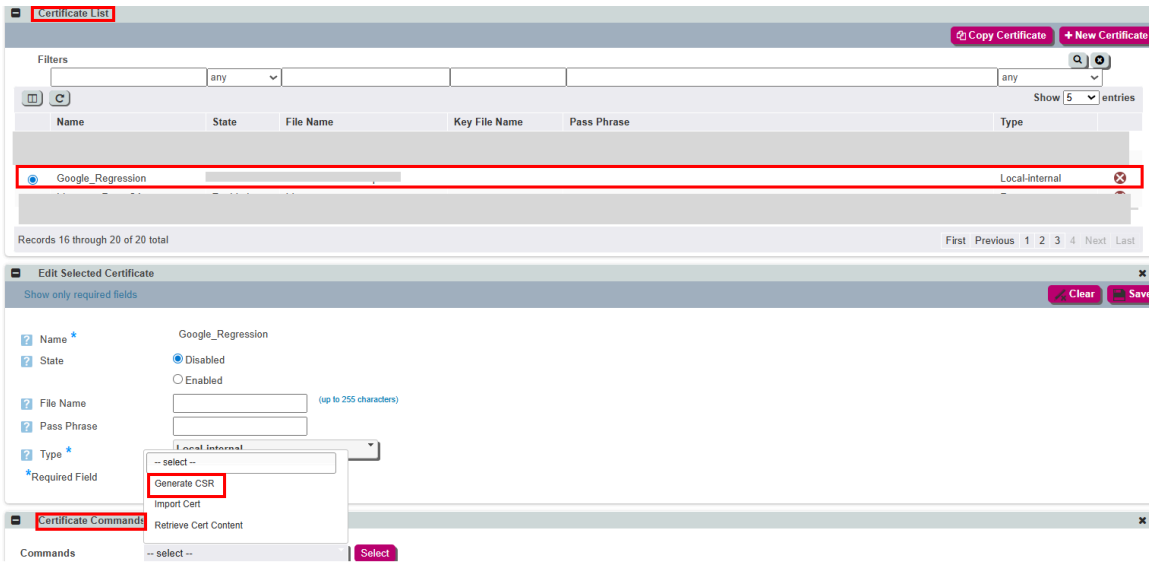
Figure 3 : Ribbon SWe Core SBC certificate creation

- Configure the Name as Google\_Regression and Type as Local-internal and Click on Save.

The screenshot shows the 'Create New Certificate' form. The form has a title bar with 'Create New Certificate' and a close button. Below the title bar, there is a 'Show only required fields' option and 'Clear' and 'Save' buttons. The form contains several fields: 'Name' (text input, value: Google\_Regression, up to 23 characters), 'State' (radio buttons, 'Disabled' is selected), 'File Name' (text input, up to 255 characters), 'Pass Phrase' (text input), and 'Type' (dropdown menu, value: Local-internal). The 'Name' and 'Type' fields are highlighted with red boxes. A '\*' symbol next to the 'Name' and 'Type' labels indicates they are required fields.

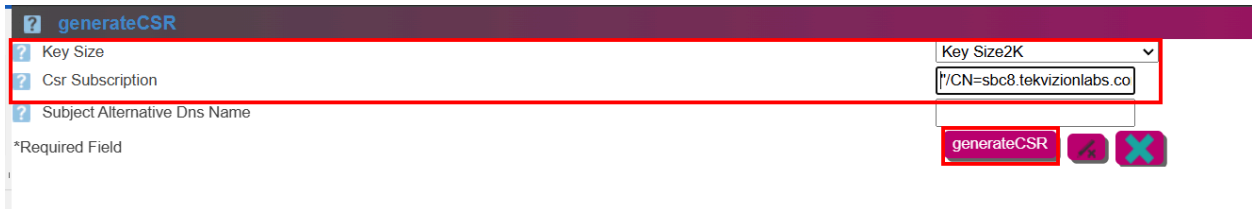
Figure 4: Ribbon SWe Core SBC certificate creation (Cont.)

- Navigate to the created certificate on the Certificate List.
- Select “Generate CSR” in Certificate Commands and click on Select.



**Figure 5: Generate CSR for Ribbon SWe Core SBC**

- Select the Key Size as “Key Size2K”
- Csr Subscription: Input the Ribbon SWe Core SBC FQDN which is required to negotiate the TLS connection with Google CES, Type “/CN=sbc8.tekvizionlabs.com”.
- Click on generateCSR.



**Figure 6 : Generate CSR for Ribbon SWe Core SBC (Cont.)**



- Get the CSR signed by CAs

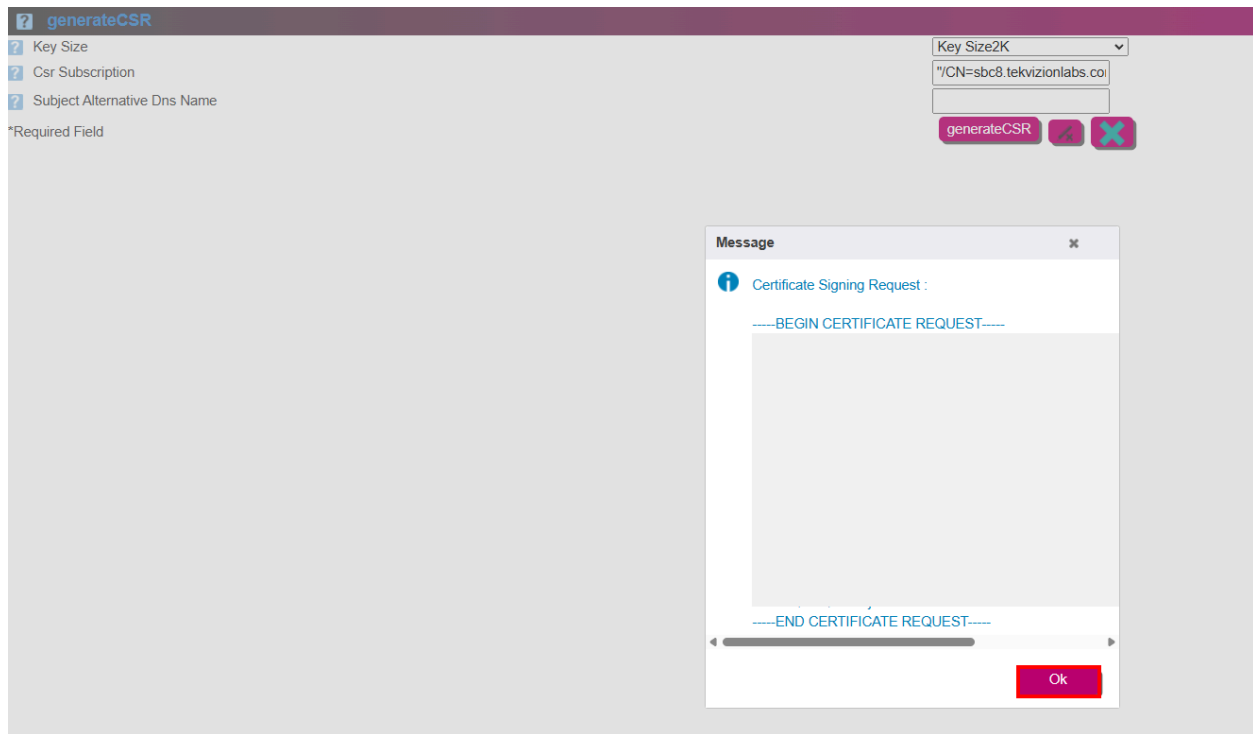


Figure 7: Generate CSR for Ribbon SWe Core SBC (Cont.)

#### 7.4.18.2 Certificate Upload

- Visit Google certificate link via <https://pki.goog/roots.pem> and download the roots PEM file.
- Open the PEM file using notepad and copy the certificate under label “GTS Root R1”
- Navigate to Administration > System Administration > File Upload
- Click on “Add files to Queue” and select the Ribbon SWe Core certificate, GTS Root R1 and Intermediate certificate.

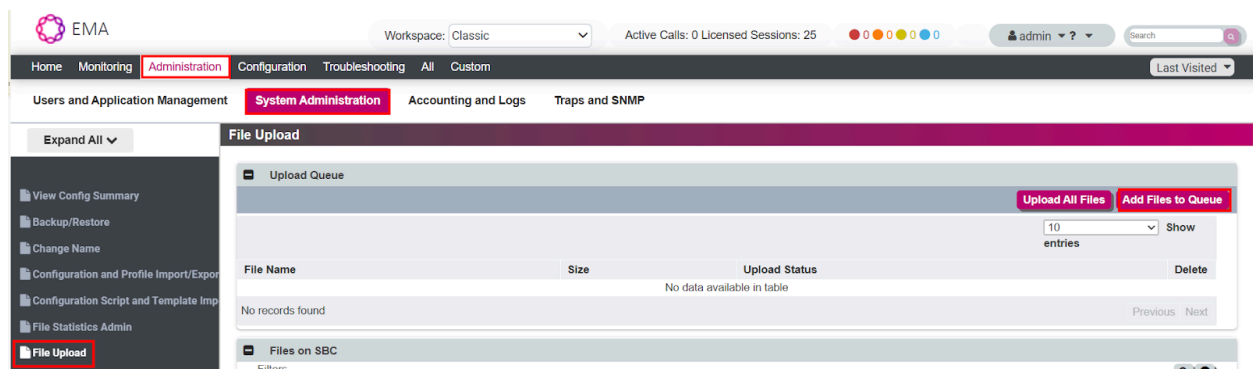
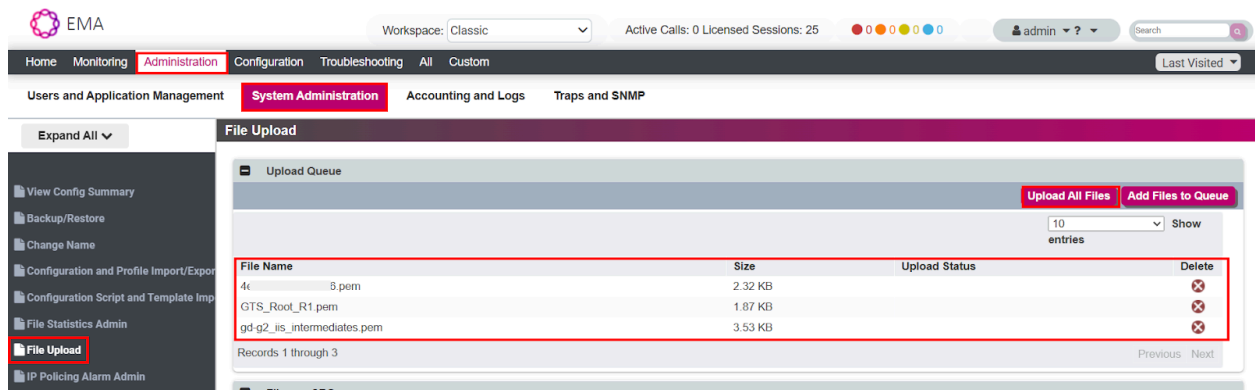


Figure 8: Certificate Upload

- Once the required certificates are selected, click on “Upload All Files”



**Figure 9 : Certificate Upload (Cont.)**

#### 7.4.18.3 Enable the Ribbon SWe Core SBC and Intermediate Certificate

```
set system security pki certificate Google_Regression state enabled
set system security pki certificate Google_Regression fileName 4XXX6.pem
set system security pki certificate Google_Regression type local-internal
commit
```

```
set system security pki certificate Intermediate state enabled
set system security pki certificate Intermediate fileName gd-g2_iis_intermediates.pem
set system security pki certificate Intermediate type remote
commit
```

#### 7.4.18.4 Enable the Google CES Root Certificate

```
set system security pki certificate GTSrootR1 state enabled
set system security pki certificate GTSrootR1 fileName GTS_root_R1.pem
set system security pki certificate GTSrootR1 type remote
commit
```

#### 7.4.18.5 TLS Profile

- A TLS profile configuration names on the Ribbon SWe Core SBC are configured as shown below.
- Input the clientCertName and serverCertName as “Google\_Regression”
- TLS version v1.3 is enabled.

```
set profiles security tlsProfile TLS_PROF appAuthTimer 5
set profiles security tlsProfile TLS_PROF handshakeTimer 5
set profiles security tlsProfile TLS_PROF sessionResumpTimer 3600
set profiles security tlsProfile TLS_PROF cipherSuite1 tls_aes_256_gcm_sha384
set profiles security tlsProfile TLS_PROF cipherSuite2 nosuite
set profiles security tlsProfile TLS_PROF clientCertName Google_Regression
set profiles security tlsProfile TLS_PROF serverCertName Google_Regression
set profiles security tlsProfile TLS_PROF v1_0 disabled
set profiles security tlsProfile TLS_PROF v1_1 disabled
set profiles security tlsProfile TLS_PROF v1_2 disabled
set profiles security tlsProfile TLS_PROF v1_3 enabled
set profiles security tlsProfile TLS_PROF hashType sha512
commit
```

# 8 SIP INVITE To Google CES

## 8.1 SIP INVITE for SIPREC call

```
INVITE sip:+13618[redacted]@us.telephony.goog:5672 SIP/2.0
Via: SIP/2.0/TLS 192.65.[redacted]:5061;branch=z9hG4bK08B000bd8d1cb4ef53c
From: "SIPREC-SRC" <sip:SIPREC-SRC@192.65.[redacted]>;tag=gK08000530
To: "SIPREC-SRS" <sip:+13618[redacted]@us.telephony.goog>
Call-ID: 524289 16777221_61865659@192.65.[redacted]
CSeq: 997972 INVITE
Max-Forwards: 70
Allow: INVITE,ACK,CANCEL,BYE,REGISTER,REFER,INFO,SUBSCRIBE,NOTIFY,PRACK,
UPDATE,OPTIONS,MESSAGE,PUBLISH
Accept: application/sdp, application/rs-metadata-request, application/r
Contact: "SIPREC-SRC" <sip:SIPREC-SRC@192.65.[redacted]:5061;transport=tls>
Require: siprec
Supported: timer,100rel
Session-Expires: 1800;refresher=uac
Min-SE: 90
Content-Length: 3407
Content-Type: multipart/mixed;boundary=sonus-content-delim
MIME-Version: 1.0
Call-info: <http://dialogflow.googleapis.com/v2beta1/projects/ccai-389[redacted]/conversations/
RC_52[redacted];59>;purpose=Goog-ContactCenter-Conversation

--sonus-content-delim
Content-Disposition: session; handling=required
Content-Length: 584
Content-Type: application/sdp

v=0
o=Sonus_UAC 969504 806052 IN IP4 192.65.[redacted]
s=SIP Media Capabilities
t=0 0
m=audio 1034 RTP/SAVP 0 101[redacted]
c=IN IP4 192.65.[redacted]
a=label:1
a=crypto:1 AES_CM 128_HMAC_SHA1_80 inline:jTBqnXEXebV1lPGFSLkqc3g7OoAaU+L6xNFwP8d8
a=rtmpmap:0 PCMU/8000
a=rtmpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendonly
a=maxptime:20
m=audio 1032 RTP/SAVP 0 101[redacted]
c=IN IP4 192.65.[redacted]
a=label:2
a=crypto:1 AES_CM 128_HMAC_SHA1_80 inline:jTBqnXEXebV1lPGFSLkqc3g7OoAaU+L6xNFwP8d8
a=rtmpmap:0 PCMU/8000
a=rtmpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendonly
a=maxptime:20
```

The INVITE Request-URI should include e.164 number obtained from Google and it should have respective regional host name with SIP Signaling port :5672

Google requires the Call-Info header, and it must contain a conversation ID. The conversation ID is unique, and the format of the conversation ID follows the regex "[a-zA-Z][a-zA-Z0-9\_-]" and is assigned for each call.  
dialogflow.googleapis.com/v2beta1 - API endpoint  
projects/ccai-3898XX - Google Cloud CCAI project ID  
conversations/RC\_xxxx - The unique conversation session ID that is assigned for that each call

The connection IP toward Google CCAI must be a public IP, not a private one.

For SIPREC, there can be single media lines with a=sendonly, for GTP there will be a multiple media line with a=sendrecv  
Encrypted SRTP and the allocated port range should be used (Port: 16384-32767) else CES will not receive audio.

It must be a supported crypto suite by Google.

Figure 10: SIPREC Call

## 8.2 SIP INVITE for GTP call

```
INVITE sip:+13149[redacted]@us.telephony.goog:5672 SIP/2.0
Via: SIP/2.0/TLS 192.65.[redacted]:5061;branch=z9hG4bK04B00ccdb1bec47
From: "Abhishanth Saya" <sip:214242[redacted]@us.telephony.goog>;tag=gK0400395a
To: <sip:+131494[redacted]@us.telephony.goog:5672>
Call-ID: 262170_60813659@192.65.[redacted]
CSeq: 710615 INVITE
Max-Forwards: 70
Allow: INVITE,ACK,CANCEL,BYE,REGISTER,REFER,INFO,SUBSCRIBE,NOTIFY,PRACK,
UPDATE,OPTIONS,MESSAGE,PUBLISH
Accept: application/sdp, application/isup, application/dtmf, application/dtmf-relay
multipart/mixed
Contact: "Abhishanth Saya" <sip:214242[redacted]@192.65.[redacted]:5061;transport=tls>
P-Asserted-Identity: "Abhishanth Saya" <sip:+1214242[redacted]@192.65.[redacted]>
Supported: timer,100rel,precondition,replaces
Session-Expires: 1800;refresher=uac
Min-SE: 90
Content-Length: 513
Content-Disposition: session; handling=required
Content-Type: application/sdp
Call-info: <http://dialogflow.googleapis.com/v2beta1/projects/ccai-389[redacted]/conversations/
RC_2[redacted];9>;purpose=Goog-ContactCenter-Conversation

v=0
o=Sonus_UAC 403113 318924 IN IP4 192.65.[redacted]
s=SIP Media Capabilities
c=IN IP4 192.65.[redacted]
t=0 0
m=audio 1292 RTP/SAVP 0 8 111 9 101[redacted]
a=crypto:1 AES_CM 128_HMAC_SHA1_80 inline:qbuXZck76goDgXRRk+KAWRxcwCBugipoEhux6cd5g
a=rtmpmap:0 PCMU/8000
a=rtmpmap:8 PCMA/8000
a=rtmpmap:111 opus/48000/2
a=fmtp:111 maxplaybackrate=8000; sprop-maxcapture=8000; minptime=10; maxaveragebitrate=20000
a=rtmpmap:9 G722/8000
a=rtmpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv
a=maxptime:20
a=rtcp-mux
```

The INVITE Request-URI should include e.164 number obtained from Google and it should have respective regional host name with SIP Signaling port :5672

Google requires the Call-Info header, and it must contain a conversation ID. The conversation ID is unique, and the format of the conversation ID follows the regex "[a-zA-Z][a-zA-Z0-9\_-]" and is assigned for each call.  
dialogflow.googleapis.com/v2beta1 - API endpoint  
projects/ccai-3898XX - Google Cloud CCAI project ID  
conversations/OR\_xxxx - The unique conversation session ID that is assigned for that each call

The connection IP toward Google CCAI must be a public IP, not a private one.

For GTP, there can be single media lines with a=sendrecv, for SIPREC there will be a multiple media line with a=sendonly  
Encrypted SRTP and the allocated port range should be used (Port: 16384-32767) else CES will not receive audio.

It must be a supported crypto suite by Google.

Figure 11: GTP call

## 9 Summary of Tests and Results

ID	Title	Description	Expected Results	Status (Passed or Failed etc)	Observations
35	UI header test	Use the UI header as opposed to call-info header to send conversation id	Call should process as normal, and recording under conversation ID derived from UI header as opposed to call-info	PASSED	Calls get successfully connected to Live agent when using UI header instead of call-info header.
36	Keep_conversation_running=TRUE test	ConversationProfile needs to have SipConfig set with keepConversationRunning = TRUE. Send first call with a Call-Info header and have a call for 2 turns. End the call. Send second call with the SAME Call-Info header as above and have a call for 3 turns. End the call.	Two calls having the same call-info has both conversation details.	PASSED	Both call transcripts are present for the same conversation session id.
37	Live Agent Transfer	Call goes to virtual agent, initial live agent handoff and verify outgoing SIP INVITE, call connection and disconnection		PASSED	Call gets connected successfully to BOT and INVITE sent successfully to connect with Agent.
38	Live Agent Transfer	Call goes to virtual agent, initial live agent handoff and verify outgoing SIP INVITE, call connection and disconnection.		PASSED	Call was connected successfully with live agent and when performing conversation "Speak to an

ID	Title	Description	Expected Results	Status (Passed or Failed etc)	Observations
		<p>Make calls to +1314944XXXX, "speak to an agent", +1-972-852-XXXX should then ring and get connected as the agent</p>			<p>agent", a new INVITE was sent from Google CES to transfer to an agent and call gets connected successfully with two-way audio.</p>
39	UUI headers	<p>Call goes to virtual agent, say "end the call", validate that the SIP BYE has a UUI header</p> <p>Make calls to +1314944XXXX, "end the call", check SIP BYE and ensure there is one or more (identify if there are 3 or 1) UUI headers with purpose Goog-Session-Param</p>		PASSED	<p>Calls get connected successfully to live agents and when performing conversation "End the call", the call gets disconnected successfully with 3 UUI headers.</p>
40	SIP REFER	<p>Call goes to virtual agent, say "send a sip refer", validate that a SIP REFER is received to 972-852-XXXX.</p> <p>Make calls to +1314944XXXX, "send a sip refer", SIP REFER should be received with REFER to set to 972-852-XXXX</p>		PASSED	<p>Call gets connected to Agent and after speaking "End the call", the call gets disconnected and a BYE request is received from Google CES with a single UUI header.</p>
41	NGA: Live Agent Transfer	<p>"Call goes to virtual agent, initial live agent handoff and verify outgoing SIP INVITE, call connection and disconnection.</p> <p>Make calls to</p>		PASS	<p>Call was connected successfully with live agent and when performing conversation "Speak to an agent", an INVITE</p>

ID	Title	Description	Expected Results	Status (Passed or Failed etc)	Observations
		<p>+1205928XXXX, ""speak to an agent"", +1-972-852-XXXX should then ring and get connected as the agent.</p> <p>Tests for SIP INVITE going out AND getting connected."</p>			<p>was sent from Google CES to transfer to an agent and call gets connected successfully with two-way audio</p>
4 2	NGA: UUI headers	<p>"Call goes to virtual agent, say ""end the call"", validate that the SIP BYE has a UUI header</p> <p>Make calls to +1205928XXXX, ""end the call"", check SIP BYE and ensure there is one UUI headers with purpose Goog-Session-Param"</p>		PASSED	<p>Call gets connected to Agent and after speaking "End the call", the call gets disconnected and a BYE request is received from Google CES with a single UUI header.</p>
4 3	NGA: SIP REFER	<p>"Call goes to virtual agent, say ""send a sip refer"", validate that a SIP REFER is received to 972-852-XXXX.</p> <p>Make calls to +1205928XXXX, ""send a sip refer"", SIP REFER should be received with refer to set to 972-852-XXXX"</p>		PASSED	<p>Call gets connected to Agent and after speaking "Send a SIP REFER", BOT responds, "doing a SIP REFER" and the transfer was successful to the Agent with two-way audio</p>