

# VoIP mit Gatekeeper

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## Einführung

In diesem Dokument wird veranschaulicht, wie ein VoIP-Netzwerk mit einem Gatekeeper konfiguriert und verifiziert wird.

## Voraussetzungen

### Anforderungen

Für dieses Dokument bestehen keine speziellen Anforderungen.

### Verwendete Komponenten

Die Informationen in diesem Dokument basieren auf den folgenden Software- und Hardwareversionen:

- Cisco IOS® Softwareversion 12.1(1)
- Cisco Router AS5300 und Cisco 3640

**Hinweis:** Es ist erforderlich, das Cisco IOS-Feature-Set -x- für die Gatekeeper-Funktion auf alle Cisco Plattformen zu laden.

Die Informationen in diesem Dokument wurden von den Geräten in einer bestimmten Laborumgebung erstellt. Alle in diesem Dokument verwendeten Geräte haben mit einer leeren (Standard-)Konfiguration begonnen. Wenn Ihr Netzwerk in Betrieb ist, stellen Sie sicher, dass Sie die potenziellen Auswirkungen eines Befehls verstehen.

## Konventionen

Weitere Informationen zu Dokumentkonventionen finden Sie in den [Cisco Technical Tips Conventions](#) .

## Hintergrundinformationen

Ein Gatekeeper ist eine H.323-Einheit in einem LAN, die die Adressumwandlung und die Steuerung des Zugriffs auf das LAN für H.323-Terminals und -Gateways ermöglicht. Der Gatekeeper kann weitere Dienste für die H.323-Terminals und -Gateways bereitstellen, wie z. B. Bandbreitenmanagement und den Standort von Gateways. Ein Gatekeeper unterhält eine Geräteregistrierung im Multimedia-Netzwerk. Die Geräte registrieren sich beim Gatekeeper beim Start und fordern vom Gatekeeper die Zulassung zu einem Anruf an.

Sie können die Gatekeeper-Konfiguration in diesem Dokument für folgende Zwecke verwenden:

- Zur Skalierung einer VoIP-Implementierung, bei der mehrere Gateways und Endgeräte installiert wurden. Diese Konfiguration ermöglicht die Durchführung von Änderungen an einem zentralen Punkt, dem Gatekeeper.
- Unterstützung bei der Steuerung der Call Admission Control (CAC) zur Begrenzung der Anrufe im Netzwerk
- So implementieren Sie die Verwendung eines Proxys im Netzwerk, um VoIP-Anrufe separat vom Datenverkehr zu verarbeiten

## Konfigurieren

In diesem Abschnitt erhalten Sie Informationen zum Konfigurieren der in diesem Dokument beschriebenen Funktionen.

**Hinweis:** Um weitere Informationen zu den in diesem Dokument verwendeten Befehlen zu erhalten, verwenden Sie das [Command Lookup Tool](#) ([nur registrierte](#) Kunden).

## Netzwerkdiagramm

Dieses Netzwerk ist eine einfache Topologie mit zwei Cisco AS5300-Gateways. Ein Gateway befindet sich in San Jose, das andere in Raleigh. An jedem Standort wird eine Gatekeeper-Konfiguration auf einem Cisco 3640 ausgeführt. In der Topologie, die dieser Abschnitt zeigt, ist kein Gatekeeper erforderlich, um einfache VoIP-Anrufe zwischen den beiden Gateways zu tätigen. Das Diagramm enthält jedoch einen Gatekeeper, um zu zeigen, wie die gesamte Konfiguration aussieht.

Die Cisco Gatekeeper-Konfigurationen für diese Topologie unterscheiden sich in folgenden Punkten von einer normalen VoIP-Implementierung:

- Jedes Gateway für die Gateway-Einrichtung registriert sich beim lokalen Gatekeeper mithilfe der Befehle **h323-Gateway VoIP-Schnittstellen**. In diesem Fall sind die Gateways AS5300 und der Gatekeeper 3640.
- Das **Sitzungsziel** im Befehl **dial-peer voice 2 voip** zeigt auf Registration, Admission, and Status (RAS) anstelle der entsprechenden **IPv4:ip-Adresse**. RAS führt diese Aufgaben aus: Definiert den Speicherort für das Gateway, das beim Gatekeeper registriert werden soll. Sendet Zulassungsanfragen für jeden Anruf. Führt bestimmte Statusinformationen für Anrufe ab.

Im H.323-Netzwerk gibt es pro Zone einen primären Gatekeeper. Der Gatekeeper kann mehrere Gateways steuern oder H.323-Geräte in der Zone beenden. In der Konfiguration, die in diesem Abschnitt veranschaulicht wird, werden Anrufe an die entsprechende Zone und den entsprechenden Gatekeeper weitergeleitet. Anschließend antwortet der Gatekeeper auf die Anrufanfrage mit der IP-Adresse des registrierten Kabelmodems, das über das Technologiepräfix (**technisches Präfix**) verfügt, das mit der angerufenen Nummer übereinstimmt.



## Anrufprozess

In diesen Schritten wird die Funktionsweise des Gatekeeper-Prozesses erläutert. Ein Telefon auf der Seite von Raleigh führt einen Anruf an ein Telefon auf der Seite von San Jose:

1. Der Raleigh 5300A erhält einen Anruf vom PBX-System an die 408556400. Dabei handelt es sich um ein Telefon, das mit dem San Jose PBX-System verbunden ist. Diese Nummer stimmt mit der Nummer unter der **DFÜ-Peer-Voice-2-VoIP überein** und hat außerdem das Präfix **408#**.
2. Die Aufnahmeanfrage bei Raleigh Gatekeeper, Raleigh 3640A, beinhaltet das Technologiepräfix und die angerufene Nummer im Format **408#4085556400**. Der **4085556400** entspricht dem Befehl **zone prefix** von **408.....**
3. Der Gatekeeper von Raleigh sendet eine Standortanfrage an den Gatekeeper von San Jose, San Jose 3640A.
4. Da die San-Jose-Gatekeeper-Konfiguration San Jose 5300A mit einem Technologiepräfix **408#** enthält, antwortet der San-Jose-Gatekeeper dem Raleigh-Gatekeeper mit der IP-Adresse San Jose 5300.
5. Diese IP-Adresse wird über eine Zugangsbestätigung (ACF) an Raleigh 5300A weitergeleitet.
6. Raleigh 5300A öffnet ein normales H.323-Gespräch mit San Jose 5300A.

## Konfigurationen

In diesem Dokument werden folgende Konfigurationen verwendet:

- [Raleigh 5300 A](#)
- [Raleigh 3640 A](#)
- [San Jose 5300A](#)
- [San Jose 3640A](#)

### **Raleigh 5300 A**

```
Raleigh5300A# show run
Building configuration...

Current configuration:
!
! Last configuration change at 00:15:38 UTC Tue Mar 28
2000
! NVRAM config last updated at 00:15:39 UTC Tue Mar 28
2000
!
version 12.1
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname Raleigh5300A
!
logging buffered 50000 debugging
enable secret < password > [Choose a strong password
with at least one capital letter, one number, and one
special character.]
!
!
!
resource-pool disable
!
!
!
!
!
clock calendar-valid
ip subnet-zero
!
isdn switch-type primary-5ess
isdn voice-call-failure 0
mta receive maximum-recipients 0
!
!
controller T1 0
 framing esf
 clock source line primary
 linecode b8zs
 pri-group timeslots 1-24
!
controller T1 1
 clock source line secondary 1
!
controller T1 2
```

```

!
controller T1 3
!
!
voice-port 0:D
!
!
dial-peer voice 1 pots
  answer-address 9195552001
  destination-pattern 919#9195552...
  direct-inward-dial
  port 0:D
  prefix 919
!
dial-peer voice 2 voip
  destination-pattern 4085556400
  tech-prefix 408#
  session target ras
!
num-exp 6... 4085556...
  gateway

  !
  interface Ethernet0
  no ip address
  shutdown
!
interface Serial0:23
  no ip address
  ip mroute-cache
  isdn switch-type primary-5ess
  isdn incoming-voice modem
  fair-queue 64 256 0
  no cdp enable
!
interface FastEthernet0
  ip address 172.16.120.2 255.255.255.0
  duplex auto
  speed auto
  h323-gateway voip interface
  h323-gateway voip id RALgk1 ipaddr 172.16.120.1 1718
  h323-gateway voip h323-id RAL5300A@cisco.com
  h323-gateway voip tech-prefix 919#
!
ip classless
ip route 172.16.110.0 255.255.255.0 172.16.120.10
no ip http server
!
line con 0
  transport input none
line 1 48
  transport output lat pad telnet rlogin udptn v120
lapb-ta
line aux 0
line vty 0 4
  password cisco
  login
!
ntp clock-period 17179850
ntp server 172.16.110.10
end

```

**Raleigh 3640 A**

```
Raleigh3640A# show run
Building configuration...

Current configuration:
!
version 12.1
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname Raleigh3640A
!
logging buffered 50000 debugging
enable secret < password > [Choose a strong password
with at least one capital letter, one number, and one
special character.]
!
!
!
!
!
ip subnet-zero
!
ip dvmrp route-limit 20000
!
!
!
!
!
interface Ethernet1/0
 ip address 172.16.120.1 255.255.255.0
!
interface Serial1/0
 no ip address
 no ip mroute-cache
 no fair-queue
!
interface TokenRing1/0
 no ip address
 shutdown
 ring-speed 16
!
ip classless
ip route 172.16.110.0 255.255.255.0 172.16.120.10
no ip http server
!
!
gatekeeper
 zone local RALgk1 cisco.com
 zone remote SJgk1 cisco.com 172.16.110.1 1719
 zone prefix SJgk1 408.....
 gw-type-prefix 408#*
 no shutdown
!
!
line con 0
 transport input none
line aux 0
line vty 0 4
 password cisco
 login
```

```
!  
ntp clock-period 17179864  
ntp server 172.16.110.10  
end
```

## San Jose 5300A

```
SanJose5300A# show run  
Building configuration...
```

```
Current configuration:
```

```
!  
! Last configuration change at 00:15:49 UTC Tue Mar 28  
2000  
! NVRAM config last updated at 00:15:50 UTC Tue Mar 28  
2000  
!  
version 12.1  
service timestamps debug datetime msec  
service timestamps log datetime msec  
no service password-encryption  
!  
hostname SanJose5300A  
!  
logging buffered 50000 debugging  
enable secret < password > [Choose a strong password  
with at least one capital letter, one number, and one  
special character.]  
!  
!  
!  
resource-pool disable  
!  
!  
!  
!  
ip subnet-zero  
!  
isdn voice-call-failure 0  
mta receive maximum-recipients 0  
!  
!  
controller T1 0  
  framing esf  
  clock source line primary  
  linecode b8zs  
  ds0-group 1 timeslots 1-4 type e&m-immediate-start  
!  
controller T1 1  
  clock source line secondary 1  
!  
controller T1 2  
!  
controller T1 3  
!  
!  
voice-port 0:1  
!  
!  
dial-peer voice 1 pots  
  answer-address 4085556001
```

```
destination-pattern 408#4085556...
direct-inward-dial
port 0:1
prefix 6
!
dial-peer voice 2 voip
destination-pattern 9195552...
tech-prefix 919#
session target ras
!
num-exp 2... 9195552...
gateway

!
interface Ethernet0
no ip address
!
interface FastEthernet0
ip address 172.16.110.2 255.255.255.0
duplex auto
speed auto
h323-gateway voip interface
h323-gateway voip id SJgk1 ipaddr 172.16.110.1 1718
h323-gateway voip h323-id SJ5300A@cisco.com
h323-gateway voip tech-prefix 408#
!
ip classless
ip route 172.16.120.0 255.255.255.0 172.16.110.10
no ip http server
!
!
!
line con 0
transport input none
line aux 0
line vty 0 4
password cisco
login
!
ntp clock-period 17179892
ntp server 172.16.110.10
end
```

## San Jose 3640A

```
SanJose3640A# show run
Building configuration...

Current configuration:
!
! NVRAM config last updated at 00:05:33 UTC Tue Mar 28
2000
!
version 12.1
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname SanJose3640A
!
boot system flash c3640-ix-mz.120-7.T
logging buffered 50000 debugging
```



```
enable secret < password > [Choose a strong password
with at least one capital letter, one number, and one
special character.]
!
!
!
!
!
ip subnet-zero
!
ip dvmrp route-limit 20000
!
!
interface Ethernet1/0
 ip address 172.16.110.1 255.255.255.0
!
interface Serial1/0
 no ip address
 no ip mroute-cache
 shutdown
 no fair-queue
!
interface Ethernet1/1
 no ip address
 shutdown
!
ip classless
ip route 172.16.120.0 255.255.255.0 172.16.110.10
no ip http server
!
tftp-server flash:c3640-ix-mz.121-1.bin
!
gatekeeper
 zone local SJgk1 cisco.com
 zone remote RALgk1 cisco.com 172.16.120.1 1719
 zone prefix RALgk1 919.....
 gw-type-prefix 919#*
 no shutdown
!
!
line con 0
 transport input none
line aux 0
line vty 0 4
 password cisco
 login
!
ntp server 172.16.110.10
end
```

## Überprüfen

Dieser Abschnitt enthält Informationen, mit denen Sie bestätigen können, dass Ihre Konfiguration ordnungsgemäß funktioniert.

Bestimmte **show**-Befehle werden vom [Output Interpreter Tool](#) unterstützt (nur [registrierte](#) Kunden), mit dem Sie eine Analyse der **show**-Befehlsausgabe anzeigen können.

- **show debug** - Zeigt die aktivierten **Debugbefehle** an
- **undebug all** - Schaltet alle Debuggen aus

- **show gatekeeper:** Zeigt den Status des Gatekeeper an.
- **show log:** Zeigt die Protokolldateiausgabe an
- **show call active voice brief:** Zeigt eine abgekürzte Version des Inhalts der aktiven Anruftabelle an. Auf dem Display werden alle Anrufe angezeigt, bei denen die aktuelle Verbindung über den Router besteht.
- **show call active voice:** Zeigt den Inhalt der Tabelle für aktive Anrufe an. In dieser Anzeige werden alle Anrufe angezeigt, bei denen die aktuelle Verbindung über den Router besteht.
- **show gatekeeper endpoints -** Zeigt den Registrierungsstatus der Endpunkte für den Gatekeeper an.
- **show gatekeeper call:** Zeigt aktive Anrufe an, die vom Gatekeeper verarbeitet wurden.
- **show gatekeeper gw:** Zeigt den Registrierungsstatus der Endpunkte für das Technologiepräfix an.

## Verifizierung für Raleigh 5300A Router

```
Raleigh5300A# show debug
```

```
ISDN:
```

```
ISDN Q931 packets debugging is on
ISDN Q931 packets debug DSLs. (On/Off/No DSL:1/0/-)
DSL 0 --> 7
1 - - - - -
```

```
H.323 RAS:
```

```
H.323 RAS Messages debugging is on
```

```
voip:
```

```
voip ccAPI function enter/exit debugging is on
```

```
Raleigh5300A# undebug all
```

```
All possible debugging has been turned off
```

```
Raleigh5300A# show gatekeeper
```

```
Gateway RAL5300A@cisco.com is registered to Gatekeeper RALgk1
```

```
Alias list (CLI configured)
```

```
H323-ID RAL5300A@cisco.com
```

```
Alias list (last RCF)
```

```
H323-ID RAL5300A@cisco.com
```

```
H323 resource thresholding is Disabled
```

```
Raleigh5300A# show log
```

```
Syslog logging: enabled (0 messages dropped, 0 flushes, 0 overruns)
```

```
Console logging: level debugging, 1048 messages logged
```

```
Monitor logging: level debugging, 0 messages logged
```

```
Buffer logging: level debugging, 1048 messages logged
```

```
Trap logging: level informational, 106 message lines logged
```

```
Log Buffer (50000 bytes):
```

```
Mar 28 00:22:47.624: ISDN Se0:23: RX <- SETUP pd = 8 callref = 0x30
```

```
Mar 28 00:22:47.624: Bearer Capability i = 0x8090A2
```

```
Mar 28 00:22:47.624: Channel ID i = 0xA98393
```

```
Mar 28 00:22:47.624: Calling Party Number i = 0x2180, '9195552010', Plan:ISDN, Type:National
```

```
Mar 28 00:22:47.624: Called Party Number i = 0xA1, '4085556400', Plan:ISDN, Type:National
```

```
Mar 28 00:22:47.628: ISDN Se0:23: TX -> CALL_PROC pd = 8 callref = 0x8030
```

```
Mar 28 00:22:47.628: Channel ID i = 0xA98393
```

```
Mar 28 00:22:47.628: ISDN Se0:23: TX -> ALERTING pd = 8 callref = 0x8030
```

Mar 28 00:22:48.016: cc\_api\_call\_setup\_ind (vdbPtr=0x61B9ADAC,  
callInfo={called=4085556400,  
calling=9195552010, fdest=1 peer\_tag=1}, callID=0x61A088C4)  
Mar 28 00:22:48.020: cc\_process\_call\_setup\_ind (event=0x61BB71B8)  
handed call to app "SESSION"  
Mar 28 00:22:48.020: sess\_appl: ev(23=CC\_EV\_CALL\_SETUP\_IND), cid(32), disp(0)  
Mar 28 00:22:48.020: ccCallSetContext (callID=0x20, context=0x61A2C368)  
Mar 28 00:22:48.020: ssaCallSetupInd finalDest cllng(9195552010),  
clled(4085556400)  
Mar 28 00:22:48.020: ssaSetupPeer cid(32) peer list: tag(2)  
called number (4085556400)  
Mar 28 00:22:48.020: ssaSetupPeer cid(32), destPat(4085556400),  
matched(10), prefix(),  
peer(61C088AC)  
Mar 28 00:22:48.020: ccCallProceeding (callID=0x20, prog\_ind=0x0)  
Mar 28 00:22:48.020: ccCallSetupRequest (Inbound call = 0x20, outbound  
peer =2, dest=,  
params=0x61A2C37C mode=0, \*callID=0x61BBE868)  
Mar 28 00:22:48.020: callingNumber=9195552010, calledNumber=4085556400,  
redirectNumber=  
Mar 28 00:22:48.020: accountNumber=, finalDestFlag=1,  
guid=1acb.27d8.98f4.0043.0000.0000.205d.0abc  
Mar 28 00:22:48.020: peer\_tag=2  
Mar 28 00:22:48.020: ccIFCallSetupRequest: (vdbPtr=0x6174EC64, dest=, callParams=  
{called=4085556400, calling=9195552010, fdest=1, voice\_peer\_tag=2}, mode=0x0)  
Mar 28 00:22:48.020: ccCallSetContext (callID=0x21, context=0x61A8FD88)  
Mar 28 00:22:48.024: RASLib::ras\_sendto: msg length 115 from 172.16.120.2:51726 to  
172.16.120.1:1719  
Mar 28 00:22:48.024: RASLib::RASSendARQ: ARQ (seq# 12119) sent to 172.16.120.1  
Mar 28 00:22:48.028: RASLib::RASRecvData: successfully  
rcvd message of length 7 from 172.16.120.1:1719  
Mar 28 00:22:48.028: RASLib::RASRecvData: RIP (seq# 12119) rcvd  
from [172.16.120.1:1719] on sock[61A18664]  
Mar 28 00:22:48.044: RASLib::RASRecvData: successfully rcvd message  
of length 24 from 172.16.120.1:1719  
Mar 28 00:22:48.044: RASLib::RASRecvData: ACF (seq# 12119)  
rcvd from [172.16.120.1:1719] on sock [0x61A18664]  
Mar 28 00:22:49.232: cc\_api\_call\_alert (vdbPtr=0x6174EC64,  
callID=0x21, prog\_ind=0x8, sig\_ind=0x1)  
Mar 28 00:22:49.232: sess\_appl: ev(7=CC\_EV\_CALL\_ALERT), cid(33), disp(0)  
Mar 28 00:22:49.232: ssaTraceSct: cid(33)st(1)oldst(0)cfid(-1)  
csize(0)in(0)fDest(0)-cid2(32)st2(1)oldst2(0)  
Mar 28 00:22:49.232: ccCallAlert (callID=0x20, prog\_ind=0x8, sig\_ind=0x1)  
Mar 28 00:22:49.232: ccConferenceCreate (confID=0x61BBE8B0,  
callID1=0x20, callID2=0x21, tag=0x0)  
Mar 28 00:22:49.232: cc\_api\_bridge\_done (confID=0xD, srcIF=0x6174EC64,  
srcCallID=0x21,  
dstCallID=0x20, disposition=0, tag=0x0)  
Mar 28 00:22:49.232: cc\_api\_bridge\_done (confID=0xD,  
srcIF=0x61B9ADAC, srcCallID=0x20,  
dstCallID=0x21, disposition=0, tag=0x0)  
Mar 28 00:22:49.232: cc\_api\_caps\_ind (dstVdbPtr=0x6174EC64,  
dstCallId=0x21, srcCallId=0x20,  
caps={codec=0xEBF7, fax\_rate=0xFF, vad=0x3, modem=0x3  
codec\_bytes=1638535964, signal\_type=2})  
Mar 28 00:22:49.236: sess\_appl: ev(28=CC\_EV\_CONF\_CREATE\_DONE), cid(32), disp(0)  
Mar 28 00:22:49.236: ssaTraceSct: cid(32)st(3)oldst(0)cfid(13)  
csize(0)in(1)fDest(1)-cid2(33)st2(3)oldst2(1)  
Mar 28 00:22:49.844: cc\_api\_caps\_ind (dstVdbPtr=0x61B9ADAC,  
dstCallId=0x20, srcCallId=0x21,  
caps={codec=0x4, fax\_rate=0x2, vad=0x2, modem=0x1  
codec\_bytes=20, signal\_type=0})  
Mar 28 00:22:49.844: cc\_api\_caps\_ack (dstVdbPtr=0x61B9ADAC,  
dstCallId=0x20, srcCallId=0x21,

```
caps={codec=0x4, fax_rate=0x2, vad=0x2, modem=0x1
      codec_bytes=20, signal_type=0})
Mar 28 00:22:49.848: cc_api_caps_ack (dstVdbPtr=0x6174EC64,
dstCallId=0x21, srcCallId=0x20,
      caps={codec=0x4, fax_rate=0x2, vad=0x2, modem=0x1
            codec_bytes=20, signal_type=0})
Mar 28 00:22:51.504: cc_api_call_connected(vdbPtr=0x6174EC64, callID=0x21)
Mar 28 00:22:51.508: sess_appl: ev(8=CC_EV_CALL_CONNECTED), cid(33), disp(0)
Mar 28 00:22:51.508: ssaTraceSct: cid(33)st(4)oldst(1)cfid(13)
csize(0)in(0)fDest(0)-cid2(32)st2(4)oldst2(3)
Mar 28 00:22:51.508: ccCallConnect (callID=0x20)
Mar 28 00:22:51.508: ssaFlushPeerTagQueue cid(32) peer list: (empty)
Mar 28 00:22:51.508: ISDN Se0:23: TX -> CONNECT pd = 8 callref = 0x8030
Mar 28 00:22:51.564: ISDN Se0:23: RX <- CONNECT_ACK pd = 8 callref = 0x30
Mar 28 00:22:51.564: ISDN Se0:23: CALL_PROGRESS:
CALL_CONNECTED call id 0x11, bchan -1, dsl 0
Mar 28 00:22:54.620: cc_api_call_digit_begin
(vdbPtr=0x61B9ADAC, callID=0x20, digit=1, flags=0x1,
timestamp=0xCAAF06B, expiration=0x0)
Mar 28 00:22:54.620: sess_appl: ev(10=CC_EV_CALL_DIGIT_BEGIN),
cid(32), disp(0)
Mar 28 00:22:54.620: ssaTraceSct: cid(32)st(5)oldst(3)cfid(13)
csize(0)in(1)fDest(1)-cid2(33)st2(5)
oldst2(4)
Mar 28 00:22:54.620: ccCallDigitBegin (callID=0x21, db=0x61BBE8EC)
Mar 28 00:22:54.700: cc_api_call_digit (vdbPtr=0x61B9ADAC,
callID=0x20, digit=1, duration=130)
Mar 28 00:22:54.700: sess_appl: ev(9=CC_EV_CALL_DIGIT), cid(32), disp(0)
Mar 28 00:22:54.700: ssaTraceSct: cid(32)st(5)oldst(5)cfid(13)
csize(0)in(1)fDest(1)-cid2(33)st2(5)
oldst2(4)
Mar 28 00:22:54.700: ccCallDigitEnd (callID=0x21, de=0x61BBE8EC)
Mar 28 00:22:55.120: ISDN Se0:23: RX <- DISCONNECT pd = 8 callref = 0x30
Mar 28 00:22:55.120: Cause i = 0x8090 - Normal call clearing
Mar 28 00:22:55.120: %ISDN-6-DISCONNECT: Interface Serial0:18
disconnected from 9195552010 , call lasted 3 seconds
Mar 28 00:22:55.124: ISDN Se0:23: TX -> RELEASE pd = 8 callref = 0x8030
Mar 28 00:22:55.124: cc_api_call_disconnected(vdbPtr=0x61B9ADAC,
callID=0x20, cause=0x10)
Mar 28 00:22:55.124: sess_appl: ev(12=CC_EV_CALL_DISCONNECTED),
cid(32), disp(0)
Mar 28 00:22:55.124: ssaTraceSct: cid(32)st(5)oldst(5)cfid(13)
csize(0)in(1)fDest(1)-cid2(33)st2(5)oldst2(4)
Mar 28 00:22:55.124: ssa: Disconnected cid(32) state(5) cause(0x10)
Mar 28 00:22:55.124: ccConferenceDestroy (confID=0xD, tag=0x0)
Mar 28 00:22:55.124: cc_api_bridge_drop_done (confID=0xD,
srcIF=0x6174EC64, srcCallID=0x21,
dstCallID=0x20, disposition=0 tag=0x0)
Mar 28 00:22:55.124: cc_api_bridge_drop_done (confID=0xD,
srcIF=0x61B9ADAC, srcCallID=0x20,
dstCallID=0x21, disposition=0 tag=0x0)
Mar 28 00:22:55.124: sess_appl: ev(29=CC_EV_CONF_DESTROY_DONE), cid(32), disp(0)
Mar 28 00:22:55.124: ssaTraceSct: cid(32)st(6)oldst(5)cfid(-1)
csize(0)in(1)fDest(1)-cid2(33)st2(6)oldst2(4)
Mar 28 00:22:55.124: ccCallDisconnect (callID=0x20, cause=0x10 tag=0x0)
Mar 28 00:22:55.124: ccCallDisconnect (callID=0x21, cause=0x10 tag=0x0)
Mar 28 00:22:55.128: RASlib::ras_sendto: msg length 76 from 172.16.120.2:51726 to
172.16.120.1:1719
Mar 28 00:22:55.128: RASlib::RASSendDRQ: DRQ (seq# 12120) sent to 172.16.120.1
Mar 28 00:22:55.132: RASlib::RASRecvData: successfully rcvd message
of length 3 from 172.16.120.1:1719
Mar 28 00:22:55.132: RASlib::RASRecvData: DCF (seq# 12120) rcvd
from [172.16.120.1:1719] on sock [0x61A18664]
Mar 28 00:22:55.132: cc_api_call_disconnect_done(vdbPtr=0x6174EC64,
```

```
callID=0x21, disp=0, tag=0x0)
Mar 28 00:22:55.132: sess_appl: ev(13=CC_EV_CALL_DISCONNECT_DONE),
cid(33), disp(0)
Mar 28 00:22:55.132: ssaTraceSct: cid(33)st(7)oldst(4)cfid(-1)
csize(0)in(0)fDest(0)-cid2(32)st2(7)oldst2(6)
Mar 28 00:22:55.140: cc_api_call_disconnect_done(vdbPtr=0x61B9ADAC,
callID=0x20, disp=0, tag=0x0)
Mar 28 00:22:55.140: sess_appl: ev(13=CC_EV_CALL_DISCONNECT_DONE), cid(32), disp(0)
Mar 28 00:22:55.140: ssaTraceSct: cid(32)st(7)oldst(6)cfid(-1)
csize(1)in(1)fDest(1)
Mar 28 00:22:55.172: ISDN Se0:23: RX <-  RELEASE_COMP pd = 8  callref = 0x30
Mar 28 00:23:14.251: RASlib::ras_sendto: msg length 76 from 172.16.120.2:51726 to
172.16.120.1:1719
Mar 28 00:23:14.251: RASlib::RASSendRRQ: RRQ (seq# 12121) sent to 172.16.120.1
Mar 28 00:23:14.255: RASlib::RASRecvData: successfully rcvd message
of length 52 from 172.16.120.1:1719
Mar 28 00:23:14.255: RASlib::RASRecvData: RCF (seq# 12121) rcvd
from [172.16.120.1:1719] on sock [0x61A18664]
Mar 28 00:23:59.255: RASlib::ras_sendto: msg length 76 from
172.16.120.2:51726 to 172.16.120.1:1719
Mar 28 00:23:59.255: RASlib::RASSendRRQ: RRQ (seq# 12122) sent to 172.16.120.1
Mar 28 00:23:59.259: RASlib::RASRecvData: successfully rcvd message
of length 52 from 172.16.120.1:1719
Mar 28 00:23:59.259: RASlib::RASRecvData: RCF (seq# 12122)
rcvd from [172.16.120.1:1719] on sock [0x61A18664]
Raleigh5300A#
```

Raleigh5300A# **show call active voice brief**

```
<ID>: <start>hs.<index> +<connect> pid:<peer_id> <dir>
<addr> <state>
  dur hh:mm:ss tx:<packets>/<bytes> rx:<packets>/<bytes> <state>
  IP <ip>:<udp> rtt:<time>ms pl:<play>/<gap>ms lost:<lost>/<early>/<late>
  delay:<last>/<min>/<max>ms <codec>
  FR <protocol><y/n><y/n><y/n><on/off> [int dici cid] vad: dtmf: seq:
  sig: <codec> (payload size)
  Tele <int>: tx:<tot>/<v>/<fax>ms <codec> noise:<l> acom:<l> i/o:<l>/<l> dBm
```

```
4B : 54320146hs.1 +1112 pid:1 Answer 9195552010 active
dur 00:00:15 tx:954/15972 rx:259/8288
Tele 0:D:36: tx:24500/5180/0ms g729r8 noise:-55 acom:0 i/0:-56/-44 dBm
```

```
4B : 54320146hs.2 +1112 pid:2 Originate 4085556400 active
dur 00:00:15 tx:259/5180 rx:954/19080
IP 172.16.110.2:17024 rtt:4ms pl:16250/0ms lost:0/0/0 delay:50/50/70ms g729r8
```

Raleigh5300A# **show call active voice**

```
GENERIC:
SetupTime=54320146 ms
Index=1
PeerAddress=9195552010
PeerSubAddress=
PeerId=1
PeerIfIndex=56
LogicalIfIndex=26
ConnectTime=54321258
CallDuration=00:00:24
CallState=4
CallOrigin=2
ChargedUnits=0
InfoType=2
```

TransmitPackets=1414  
TransmitBytes=20900  
ReceivePackets=615  
ReceiveBytes=19680  
TELE:  
ConnectionId=[0x1ACB27D8 0x98F4004B 0x0 0x206098B4]  
TxDuration=33700 ms  
VoiceTxDuration=12300 ms  
FaxTxDuration=0 ms  
CoderTypeRate=g729r8  
NoiseLevel=-55  
ACOMLevel=0  
OutSignalLevel=-45  
InSignalLevel=-55  
InfoActivity=2  
ERLLevel=19  
SessionTarget=  
ImgPages=0  
GENERIC:  
SetupTime=54320146 ms  
Index=2  
PeerAddress=4085556400  
PeerSubAddress=  
PeerId=2  
PeerIfIndex=57  
LogicalIfIndex=0  
ConnectTime=54321258  
CallDuration=00:00:24  
CallState=4  
CallOrigin=1  
ChargedUnits=0  
InfoType=2  
TransmitPackets=615  
TransmitBytes=12300  
ReceivePackets=1415  
ReceiveBytes=28300  
VOIP:  
ConnectionId[0x1ACB27D8 0x98F4004B 0x0 0x206098B4]  
RemoteIPAddress=172.16.110.2  
RemoteUDPPort=17024  
RoundTripDelay=4 ms  
SelectedQoS=best-effort  
tx\_DtmfRelay=inband-voice  
SessionProtocol=cisco  
SessionTarget=ras  
OnTimeRvPayout=25900  
GapFillWithSilence=0 ms  
GapFillWithPrediction=0 ms  
GapFillWithInterpolation=0 ms  
GapFillWithRedundancy=0 ms  
HiWaterPayoutDelay=70 ms  
LoWaterPayoutDelay=50 ms  
ReceiveDelay=50 ms  
LostPackets=0  
EarlyPackets=0  
LatePackets=0  
VAD = enabled  
CoderTypeRate=g729r8  
CodecBytes=20  
SignalingType=cas  
Raleigh5300A#

[Verifizierung für Raleigh 3640A Router](#)

Raleigh3640A# **show gatekeeper end**

GATEKEEPER ENDPOINT REGISTRATION

```
=====
CallSignalAddr  Port  RASSignalAddr  Port  Zone Name           Type  F
-----
172.16.120.2    1720  172.16.120.2   51726  RALgk1              VOIP-GW
      H323-ID: RAL5300A@cisco.com
Total number of active registrations = 1
```

Raleigh3640A# **show gatekeeper gw**

GATEWAY TYPE PREFIX TABLE

=====

Prefix: 408#\*

Prefix: 919#\*

Zone RALgk1 master gateway list:

172.16.120.2:1720 RAL5300A

Raleigh3640A# **show log**

Syslog logging: enabled (0 messages dropped, 0 flushes, 0 overruns)

Console logging: level debugging, 239 messages logged

Monitor logging: level debugging, 0 messages logged

Buffer logging: level debugging, 239 messages logged

Trap logging: level informational, 106 message lines logged

Log Buffer (50000 bytes):

```
Mar 28 00:22:48.019: RASLib::RASRecvData: successfully rcvd message of
length 115 from 172.16.120.2:51726
Mar 28 00:22:48.019: RASLib::RASRecvData: ARQ (seq# 12119) rcvd from
[172.16.120.2:51726] on sock [0x60F2F9A0] RASLib::parse_arq_nonstd: ARQ
Nonstd decode succeeded, remlen = 0
Mar 28 00:22:48.023: RASLib::ras_sendto: msg length 7 from
172.16.120.1:1719 to 172.16.120.2:51726
Mar 28 00:22:48.023: RASLib::RASSendRIP: RIP (seq# 12119) sent to
172.16.120.2
Mar 28 00:22:48.023: RASLib::RAS_WK_TInit: ipsock [0x612328CC] setup
successful
Mar 28 00:22:48.027: RASLib::ras_sendto: msg length 79 from
172.16.120.1:52893 to 172.16.110.1:1719
Mar 28 00:22:48.027: RASLib::RASSendLRQ: LRQ (seq# 20) sent to 172.16.110.1
Mar 28 00:22:48.035: RASLib::RASRecvData: successfully rcvd message of length
128 from 172.16.110.1:1719
Mar 28 00:22:48.035: RASLib::RASRecvData: LCF (seq# 20) rcvd from
[172.16.110.1:1719] on sock [0x612328CC] RASLib::parse_lcf_nonstd:
LCF Nonstd decode succeeded, remlen = 0
Mar 28 00:22:48.039: RASLib::ras_sendto: msg length 24 from 172.16.120.1:1719 to
172.16.120.2:51726
Mar 28 00:22:48.039: RASLib::RASSendACF: ACF (seq# 12119) sent to 172.16.120.2
Mar 28 00:22:55.123: RASLib::RASRecvData: successfully rcvd message of length
76 from 172.16.120.2:51726
Mar 28 00:22:55.123: RASLib::RASRecvData: DRQ (seq# 12120) rcvd from
[172.16.120.2:51726] on sock [0x60F2F9A0]
Mar 28 00:22:55.127: RASLib::ras_sendto: msg length 3 from 172.16.120.1:1719 to
172.16.120.2:51726
Mar 28 00:22:55.127: RASLib::RASSendDCF: DCF (seq# 12120) sent to 172.16.120.2
Mar 28 00:23:14.247: RASLib::RASRecvData: successfully rcvd message of length 76
from 172.16.120.2:51726
Mar 28 00:23:14.251: RASLib::RASRecvData: RRQ (seq# 12121) rcvd from
```

```

[172.16.120.2:51726] on sock [0x60F2F9A0]
Mar 28 00:23:14.251: RASLib::ras_sendto: msg length 52 from 172.16.120.1:1719 to
172.16.120.2:51726
Mar 28 00:23:14.251: RASLib::RASSendRCF: RCF (seq# 12121) sent to 172.16.120.2
Mar 28 00:23:59.251: RASLib::RASRecvData: successfully rcvd message of length 76
from 172.16.120.2:51726
Mar 28 00:23:59.251: RASLib::RASRecvData: RRQ (seq# 12122) rcvd from
[172.16.120.2:51726] on sock [0x60F2F9A0]
Mar 28 00:23:59.255: RASLib::ras_sendto: msg length 52 from
172.16.120.1:1719 to 172.16.120.2:51726
Mar 28 00:23:59.255: RASLib::RASSendRCF: RCF (seq# 12122) sent to 172.16.120.2
Mar 28 00:24:44.255: RASLib::RASRecvData: successfully rcvd message of length 76
from 172.16.120.2:51726
Mar 28 00:24:44.255: RASLib::RASRecvData: RRQ (seq# 12123) rcvd from
[172.16.120.2:51726] on sock [0x60F2F9A0]
Mar 28 00:24:44.259: RASLib::ras_sendto: msg length 52 from 172.16.120.1:1719
to 172.16.120.2:51726
Mar 28 00:24:44.259: RASLib::RASSendRCF: RCF (seq# 12123) sent to 172.16.120.2
Raleigh3640A#

```

Raleigh3640A# **show gatekeeper call**

Total number of active calls = 1.

GATEKEEPER CALL INFO

=====

LocalCallID	Age(secs)	BW			
18-6872	41	64 (Kbps)			
Endpt(s): Alias	E.164Addr	CallSignalAddr	Port	RASSignalAddr	Port
src EP: RAL5300A	9195552010	172.16.120.2	1720	172.16.120.2	51726
dst EP:	408#408555640	172.16.110.2	1720	172.16.110.2	1720

Raleigh3640A#

## [Verifizierung für San Jose 5300A Router](#)

SanJose5300A# **show gatekeeper**

Gateway SJ5300A@cisco.com is registered to Gatekeeper SJgk1

Alias list (CLI configured)

H323-ID SJ5300A@cisco.com

Alias list (last RCF)

H323-ID SJ5300A@cisco.com

H323 resource thresholding is Disabled

SanJose5300A# **show log**

Syslog logging: enabled (0 messages dropped, 0 flushes, 0 overruns)

Console logging: level debugging, 1695 messages logged

Monitor logging: level debugging, 0 messages logged

Buffer logging: level debugging, 1695 messages logged

Trap logging: level informational, 96 message lines logged

Log Buffer (50000 bytes):

Mar 28 00:22:48.043: RASLib::ras\_sendto: msg length 122 from  
172.16.110.2:52521 to 172.16.110.1:1719

Mar 28 00:22:48.043: RASLib::RASSendARQ: ARQ (seq# 12092) sent to  
172.16.110.1

Mar 28 00:22:48.047: RASLib::RASRecvData: successfully rcvd message of length  
24 from 172.16.110.1:1719

Mar 28 00:22:48.047: RASLib::RASRecvData: ACF (seq# 12092) rcvd from



[172.16.110.1:1719] on sock [0x61752218]  
Mar 28 00:22:48.047: cc\_api\_call\_setup\_ind (vdbPtr=0x616F8D2C,  
callInfo={called=408#4085556400,  
calling=9195552010, fdest=1 peer\_tag=2}, callID=0x6199B54C)  
Mar 28 00:22:48.051: cc\_process\_call\_setup\_ind (event=0x619B3954)  
handed call to app "SESSION"  
Mar 28 00:22:48.051: sess\_appl: ev(23=CC\_EV\_CALL\_SETUP\_IND), cid(25), disp(0)  
Mar 28 00:22:48.051: ccCallSetContext (callID=0x19, context=0x61A643D8)  
Mar 28 00:22:48.051: ssaCallSetupInd finalDest cllng(9195552010),  
clled(408#4085556400)  
Mar 28 00:22:48.051: ssaSetupPeer cid(25) peer list: tag(1)  
called number (408#4085556400)  
Mar 28 00:22:48.051: ssaSetupPeer cid(25), destPat(408#4085556400),  
matched(11), prefix(6),  
peer(61A03B88)  
Mar 28 00:22:48.051: ccCallProceeding (callID=0x19, prog\_ind=0x0)  
Mar 28 00:22:48.051: ccCallSetupRequest (Inbound call = 0x19,  
outbound peer =1, dest=,  
params=0x61A643EC mode=0, \*callID=0x619BB9F0)  
Mar 28 00:22:48.051: callingNumber=9195552010, calledNumber=408#4085556400,  
redirectNumber=  
Mar 28 00:22:48.051: accountNumber=, finalDestFlag=1,  
guid=1acb.27d8.98f4.0043.0000.0000.205d.0abc  
Mar 28 00:22:48.051: peer\_tag=1  
Mar 28 00:22:48.051: ccIFCallSetupRequest: (vdbPtr=0x619AC884,  
dest=, callParams=  
{called=408#4085556400, calling=9195552010, fdest=1, voice\_peer\_tag=1}, mode=0x0)  
Mar 28 00:22:48.051: ccCallSetContext (callID=0x1A, context=0x61A6DCC8)  
Mar 28 00:22:48.235: cc\_api\_call\_proceeding(vdbPtr=0x619AC884, callID=0x1A,  
prog\_ind=0x0)  
Mar 28 00:22:48.235: sess\_appl: ev(20=CC\_EV\_CALL\_PROCEEDING), cid(26), disp(0)  
Mar 28 00:22:48.235: ssaTraceSct: cid(26)st(1)oldst(0)cfid(-1)  
csize(0)in(0)fDest(0)-cid2(25)st2(1)oldst2(0)  
Mar 28 00:22:48.235: ssaIgnore cid(26), st(1),oldst(1), ev(20)  
Mar 28 00:22:49.215: cc\_api\_call\_alert(vdbPtr=0x619AC884,  
callID=0x1A, prog\_ind=0x8, sig\_ind=0x1)  
Mar 28 00:22:49.215: sess\_appl: ev(7=CC\_EV\_CALL\_ALERT), cid(26), disp(0)  
Mar 28 00:22:49.215: ssaTraceSct: cid(26)st(1)oldst(1)cfid(-1)csize(0)in(0)fDest(0)  
-cid2(25)st2(1)oldst2(0)  
Mar 28 00:22:49.215: ccCallAlert (callID=0x19, prog\_ind=0x8, sig\_ind=0x1)  
Mar 28 00:22:49.215: ccConferenceCreate (confID=0x619BBA38, callID1=0x19,  
callID2=0x1A, tag=0x0)  
Mar 28 00:22:49.219: cc\_api\_bridge\_done (confID=0xD, srcIF=0x616F8D2C,  
srcCallID=0x19,dstCallID=0x1A, disposition=0, tag=0x0)  
Mar 28 00:22:49.219: cc\_api\_bridge\_done (confID=0xD, srcIF=0x619AC884,  
srcCallID=0x1A, dstCallID=0x19, disposition=0, tag=0x0)  
Mar 28 00:22:49.219: cc\_api\_caps\_ind (dstVdbPtr=0x616F8D2C, dstCallId=0x19,  
srcCallId=0x1A, caps={codec=0xEBF7, fax\_rate=0xFF, vad=0x3,  
modem=0x3codec\_bytes=1637472312, signal\_type=2})  
Mar 28 00:22:49.219: sess\_appl: ev(28=CC\_EV\_CONF\_CREATE\_DONE),  
cid(25), disp(0)  
Mar 28 00:22:49.219: ssaTraceSct: cid(25)st(3)oldst(0)cfid(13)  
csize(0)in(1)fDest(1)-cid2(26)st2(3)oldst2(1)  
Mar 28 00:22:49.631: cc\_api\_caps\_ind (dstVdbPtr=0x619AC884,  
dstCallId=0x1A, srcCallId=0x19 caps={codec=0x4, fax\_rate=0x2, vad=0x2, modem=0x1  
codec\_bytes=20, signal\_type=0})  
Mar 28 00:22:49.631: cc\_api\_caps\_ack (dstVdbPtr=0x619AC884,  
dstCallId=0x1A, srcCallId=0x19,  
caps={codec=0x4, fax\_rate=0x2, vad=0x2, modem=0x1  
codec\_bytes=20, signal\_type=0})  
Mar 28 00:22:49.635: cc\_api\_caps\_ack (dstVdbPtr=0x616F8D2C,  
dstCallId=0x19, srcCallId=0x1A,  
caps={codec=0x4, fax\_rate=0x2, vad=0x2, modem=0x1  
codec\_bytes=20, signal\_type=0})

Mar 28 00:22:51.491: cc\_api\_call\_connected(vdbPtr=0x619AC884, callID=0x1A)  
Mar 28 00:22:51.491: sess\_appl: ev(8=CC\_EV\_CALL\_CONNECTED), cid(26), disp(0)  
Mar 28 00:22:51.491: ssaTraceSct: cid(26)st(4)oldst(1)cfid(13)  
csize(0)in(0)fDest(0)-cid2(25)st2(4)oldst2(3)  
Mar 28 00:22:51.491: ccCallConnect (callID=0x19)  
Mar 28 00:22:51.491: ssaFlushPeerTagQueue cid(25) peer list: (empty)  
Mar 28 00:22:55.119: cc\_api\_call\_disconnected(vdbPtr=0x0, callID=0x19, cause=0x10)  
Mar 28 00:22:55.119: sess\_appl: ev(12=CC\_EV\_CALL\_DISCONNECTED), cid(25), disp(0)  
Mar 28 00:22:55.119: ssaTraceSct: cid(25)st(5)oldst(3)cfid(13)  
csize(0)in(1)fDest(1)-cid2(26) st2(5)oldst2(4)  
Mar 28 00:22:55.119: ssa: Disconnected cid(25) state(5) cause(0x10)  
Mar 28 00:22:55.119: ccConferenceDestroy (confID=0xD, tag=0x0)  
Mar 28 00:22:55.119: cc\_api\_bridge\_drop\_done (confID=0xD,  
srcIF=0x616F8D2C, srcCallID=0x19, dstCallID=0x1A, disposition=0 tag=0x0)  
Mar 28 00:22:55.119: cc\_api\_bridge\_drop\_done (confID=0xD,  
srcIF=0x619AC884, srcCallID=0x1A, dstCallID=0x19, disposition=0 tag=0x0)  
Mar 28 00:22:55.119: sess\_appl: ev(29=CC\_EV\_CONF\_DESTROY\_DONE),  
cid(25), disp(0)  
Mar 28 00:22:55.119: ssaTraceSct: cid(25)st(6)oldst(5)cfid(-1)  
csize(0)in(1)fDest(1)-cid2(26)st2(6)oldst2(4)  
Mar 28 00:22:55.119: ccCallDisconnect (callID=0x19, cause=0x10 tag=0x0)  
Mar 28 00:22:55.119: ccCallDisconnect (callID=0x1A, cause=0x10 tag=0x0)  
Mar 28 00:22:55.123: RASLib::ras\_sendto: msg length 76 from  
172.16.110.2:52521 to 172.16.110.1:1719  
Mar 28 00:22:55.123: RASLib::RASSendDRQ: DRQ (seq# 12093) sent to  
172.16.110.1  
Mar 28 00:22:55.127: RASLib::RASRecvData: successfully rcvd message  
of length 3 from 172.16.110.1:1719  
Mar 28 00:22:55.127: RASLib::RASRecvData: DCF (seq# 12093) rcvd  
from [172.16.110.1:1719] on sock [0x61752218]  
Mar 28 00:22:55.127: cc\_api\_call\_disconnect\_done(vdbPtr=0x0,  
callID=0x19, disp=0, tag=0x0)  
Mar 28 00:22:55.127: sess\_appl: ev(13=CC\_EV\_CALL\_DISCONNECT\_DONE),  
cid(25), disp(0)  
Mar 28 00:22:55.127: ssaTraceSct: cid(25)st(7)oldst(6)cfid(-1)  
csize(0)in(1)fDest(1)-cid2(26)st2 (7)oldst2(4)  
Mar 28 00:22:55.139: cc\_api\_call\_disconnect\_done(vdbPtr=0x619AC884,  
callID=0x1A, disp=0, tag=0x61A630BC)  
Mar 28 00:22:55.139: sess\_appl: ev(13=CC\_EV\_CALL\_DISCONNECT\_DONE),  
cid(26), disp(0)  
Mar 28 00:22:55.139: ssaTraceSct: cid(26)st(7)oldst(4)cfid(-1)  
csize(1)in(0)fDest(0)  
Mar 28 00:22:55.443: RASLib::ras\_sendto: msg length 74 from 172.16.110.2:52521 to  
172.16.110.1:1719  
Mar 28 00:22:55.443: RASLib::RASSendRRQ: RRQ (seq# 12094) sent to 172.16.110.1  
Mar 28 00:22:55.447: RASLib::RASRecvData: successfully rcvd message  
of length 52 from 172.16.110.1:1719  
Mar 28 00:22:55.447: RASLib::RASRecvData: RCF (seq# 12094) rcvd  
from [172.16.110.1:1719] on sock [0x61752218]  
Mar 28 00:23:40.448: RASLib::ras\_sendto: msg length 74 from 172.16.110.2:52521 to  
172.16.110.1:1719  
Mar 28 00:23:40.448: RASLib::RASSendRRQ: RRQ (seq# 12095) sent to 172.16.110.1  
Mar 28 00:23:40.452: RASLib::RASRecvData: successfully rcvd message  
of length 52 from 172.16.110.1:1719  
Mar 28 00:23:40.452: RASLib::RASRecvData: RCF (seq# 12095) rcvd from  
[172.16.110.1:1719] on sock [0x61752218]  
Mar 28 00:24:25.452: RASLib::ras\_sendto: msg length 74 from 172.16.110.2:52521 to  
172.16.110.1:1719  
Mar 28 00:24:25.452: RASLib::RASSendRRQ: RRQ (seq# 12096) sent to 172.16.110.1  
Mar 28 00:24:25.456: RASLib::RASRecvData: successfully rcvd message of  
length 52 from 172.16.110.1:1719  
Mar 28 00:24:25.456: RASLib::RASRecvData: RCF (seq# 12096) rcvd  
from [172.16.110.1:1719] on sock [0x61752218]  
Mar 28 00:25:10.457: RASLib::ras\_sendto: msg length 74 from 172.16.110.2:52521 to

172.16.110.1:1719

Mar 28 00:25:10.457: RASLib::RASSendRRQ: RRQ (seq# 12097) sent to 172.16.110.1

Mar 28 00:25:10.461: RASLib::RASRecvData: successfully rcvd message  
of length 52 from 172.16.110.1:1719

Mar 28 00:25:10.461: RASLib::RASRecvData: RCF (seq# 12097) rcvd  
from [172.16.110.1:1719] on sock [0x61752218]

SanJose5300A#

Raleigh5300A# **show call active voice brief**

```
<ID>: <start>hs.<index> +<connect> pid:<peer_id> <dir> <addr> <state>
dur hh:mm:ss tx:<packets>/<bytes> rx:<packets>/<bytes> <state>
IP <ip>:<udp> rtt:<time>ms pl:<play>/<gap>ms lost:<lost>/<early>/<late>
delay:<last>/<min>/<max>ms <codec>
FR <protocol><y/n><y/n><y/n><on/off> [int dici cid] vad: dtmf: seq:
sig: <codec> (payload size)
Tele <int>: tx:<tot>/<v>/<fax>ms <codec> noise:<l> acom:<l> i/o:<l>/<l> dBm
```

```
4B : 54285525hs.1 +1107 pid:2 Answer 9195552010 active
dur 00:00:38 tx:2106/42120 rx:1023/20460
IP 172.16.120.2:17698 rtt:4ms pl:19920/0ms lost:0/0/0 delay:30/30/70ms g729r8
```

```
4B : 54285543hs.1 +1089 pid:1 Originate 408#4085556400 active
dur 00:00:38 tx:1023/-5040 rx:2125/68000
Tele 0:1 (30): tx:47730/42500/0ms g729r8 noise:-72 acom:0 i/o:-41/-41 dBm
```

SanJose5300A# **show call active voice**

```
GENERIC:
SetupTime=54285525 ms
Index=1
PeerAddress=9195552010
PeerSubAddress=
PeerId=2
PeerIfIndex=17
LogicalIfIndex=0
ConnectTime=54286632
CallDuration=00:00:44
CallState=4
CallOrigin=2
ChargedUnits=0
InfoType=2
TransmitPackets=2415
TransmitBytes=48300
ReceivePackets=1055
ReceiveBytes=21100
VOIP:
ConnectionId[0x1ACB27D8 0x98F4004B 0x0 0x206098B4]
RemoteIPAddress=172.16.120.2
RemoteUDPPort=17698
RoundTripDelay=65535 ms
SelectedQoS=best-effort
tx_DtmfRelay=inband-voice
SessionProtocol=cisco
SessionTarget=
OnTimeRvPayout=21090
GapFillWithSilence=0 ms
GapFillWithPrediction=0 ms
GapFillWithInterpolation=0 ms
GapFillWithRedundancy=0 ms
HiWaterPayoutDelay=70 ms
LoWaterPayoutDelay=30 ms
```

```

ReceiveDelay=30 ms
LostPackets=0
EarlyPackets=0
LatePackets=0
VAD = enabled
CoderTypeRate=g729r8
CodecBytes=20
SignalingType=cas
  GENERIC:
SetupTime=54285543 ms
Index=1
PeerAddress=408#4085556400
PeerSubAddress=
PeerId=1
PeerIfIndex=16
LogicalIfIndex=13
ConnectTime=54286632
CallDuration=00:00:44
CallState=4
CallOrigin=1
ChargedUnits=0
InfoType=2
TransmitPackets=1055
TransmitBytes=-8108
ReceivePackets=2434
ReceiveBytes=77888
TELE:
ConnectionId=[0x1ACB27D8 0x98F4004B 0x0 0x206098B4]
TxDuration=53920 ms
VoiceTxDuration=48690 ms
FaxTxDuration=0 ms
CoderTypeRate=g729r8
NoiseLevel=-72
ACOMLevel=0
OutSignalLevel=-71
InSignalLevel=-43
InfoActivity=2
ERLLevel=9
SessionTarget=
ImgPages=0
SanJose5300A#

```

## Verifizierung für San Jose 3640A Router

```

SanJose3640A# show gatekeeper end
                GATEKEEPER ENDPOINT REGISTRATION
                =====
CallSignalAddr  Port  RASSignalAddr  Port  Zone Name      Type  F
-----
172.16.110.2    1720  172.16.110.2   52521  SJgk1          VOIP-GW
      H323-ID: SJ5300A@cisco.com
Total number of active registrations = 1

```

```

SanJose3640A# show gatekeeper gw
GATEWAY TYPE PREFIX TABLE
=====
Prefix: 919#*

```

```

Prefix: 408#*
Zone SJgk1 master gateway list:
  172.16.110.2:1720 SJ5300A

```

SanJose3640A# **show log**

Syslog logging: enabled (0 messages dropped, 0 flushes, 0 overruns)

Console logging: level debugging, 1266 messages logged

Monitor logging: level debugging, 0 messages logged

Buffer logging: level debugging, 1258 messages logged

Trap logging: level informational, 102 message lines logged

Log Buffer (50000 bytes):

Mar 28 00:22:48.025: RASLib::RASRecvData: successfully rcvd message of length 79 from 172.16.120.1:52893

Mar 28 00:22:48.029: RASLib::RASRecvData: LRQ (seq# 20) rcvd from [172.16.120.1:52893] on sock [0x60FE9B04] RASLib::parse\_lrq\_nonstd: LRQ Nonstd decode succeeded, remlen = 0

Mar 28 00:22:48.033: RASlib::ras\_sendto: msg length 128 from 172.16.110.1:1719 to 172.16.120.1:52893

Mar 28 00:22:48.033: RASLib::RASSendLCF: LCF (seq# 20) sent to 172.16.120.1

Mar 28 00:22:48.049: RASLib::RASRecvData: successfully rcvd message of length 122 from 172.16.110.2:52521

Mar 28 00:22:48.049: RASLib::RASRecvData: ARQ (seq# 12092) rcvd from [172.16.110.2:52521] on sock [0x60FE9B04] RASLib::parse\_arq\_nonstd: ARQ Nonstd decode succeeded, remlen = 0

Mar 28 00:22:48.053: RASlib::ras\_sendto: msg length 24 from 172.16.110.1:1719 to 172.16.110.2:52521

Mar 28 00:22:48.053: RASLib::RASSendACF: ACF (seq# 12092) sent to 172.16.110.2

Mar 28 00:22:55.129: RASLib::RASRecvData: successfully rcvd message of length 76 from 172.16.110.2:52521

Mar 28 00:22:55.129: RASLib::RASRecvData: DRQ (seq# 12093) rcvd from [172.16.110.2:52521] on sock [0x60FE9B04]

Mar 28 00:22:55.129: RASlib::ras\_sendto: msg length 3 from 172.16.110.1:1719 to 172.16.110.2:52521

Mar 28 00:22:55.129: RASLib::RASSendDCF: DCF (seq# 12093) sent to 172.16.110.2

Mar 28 00:22:55.449: RASLib::RASRecvData: successfully rcvd message of length 74 from 172.16.110.2:52521

Mar 28 00:22:55.449: RASLib::RASRecvData: RRQ (seq# 12094) rcvd from [172.16.110.2:52521] on sock [0x60FE9B04]

Mar 28 00:22:55.453: RASlib::ras\_sendto: msg length 52 from 172.16.110.1:1719 to 172.16.110.2:52521

Mar 28 00:22:55.453: RASLib::RASSendRCF: RCF (seq# 12094) sent to 172.16.110.2

Mar 28 00:23:40.453: RASLib::RASRecvData: successfully rcvd message of length 74 from 172.16.110.2:52521

Mar 28 00:23:40.457: RASLib::RASRecvData: RRQ (seq# 12095) rcvd from [172.16.110.2:52521] on sock [0x60FE9B04]

Mar 28 00:23:40.457: RASlib::ras\_sendto: msg length 52 from 172.16.110.1:1719 to 172.16.110.2:52521

Mar 28 00:23:40.457: RASLib::RASSendRCF: RCF (seq# 12095) sent to 172.16.110.2

Mar 28 00:24:25.457: RASLib::RASRecvData: successfully rcvd message of length 74 from 172.16.110.2:52521

Mar 28 00:24:25.461: RASLib::RASRecvData: RRQ (seq# 12096) rcvd from [172.16.110.2:52521] on sock [0x60FE9B04]

Mar 28 00:24:25.461: RASlib::ras\_sendto: msg length 52 from 172.16.110.1:1719 to 172.16.110.2:52521

Mar 28 00:24:25.461: RASLib::RASSendRCF: RCF (seq# 12096) sent to 172.16.110.2

Mar 28 00:25:10.465: RASLib::RASRecvData: successfully rcvd message of length 74 from 172.16.110.2:52521

Mar 28 00:25:10.465: RASLib::RASRecvData: RRQ (seq# 12097) rcvd from [172.16.110.2:52521] on sock [0x60FE9B04]

Mar 28 00:25:10.465: RASlib::ras\_sendto: msg length 52 from 172.16.110.1:1719 to 172.16.110.2:52521

Mar 28 00:25:10.469: RASLib::RASSendRCF: RCF (seq# 12097) sent to 172.16.110.2

SanJose3640A#

```
SanJose3640A# show gatekeeper call
Total number of active calls = 1
```

## Anruferinformationen für Vorzimmerlöwen

```

                                     GATEKEEPER CALL INFO
                                     =====
LocalCallID                          Age (secs)   BW
15-6872                               60          64 (Kbps)
Endpt(s): Alias                      E.164Addr   CallSignalAddr  Port  RASignalAddr  Port
src EP:                              9195552010
dst EP: SJ5300A                      408#408555640 172.16.110.2   1720 172.16.110.2  52521
```

```
SanJose3640A#
```

## Fehlerbehebung

Dieser Abschnitt enthält Informationen zur Fehlerbehebung in Ihrer Konfiguration.

### Befehle zur Fehlerbehebung

**Hinweis:** Bevor Sie **Debugbefehle** ausgeben, lesen Sie [die](#) Informationen [Wichtige Informationen über Debug-Befehle](#).

- [Debug ras](#)
- [debug h245 asn1](#)
- [debug h225 asn1](#)

**Hinweis:** Weitere Informationen finden Sie unter [Understanding and Troubleshooting Gatekeeper TTL and Agging Out Process](#). In diesem Dokument wird beschrieben, wie der Cisco Gatekeeper die Endpunkte mithilfe des TTL-Werts (Time to Live) abrufft.

## Zugehörige Informationen

- [Unterstützung von Sprachtechnologie](#)
- [Produkt-Support für Sprach- und IP-Kommunikation](#)
- [Fehlerbehebung bei Cisco IP-Telefonie](#)
- [Technischer Support und Dokumentation - Cisco Systems](#)