VoIP مع برنامج حماية البوابة

المحتويات

المقدمة

يوضح هذا المستند كيفية تكوين شبكة VoIP والتحقق منها باستخدام برنامج حماية البوابة.

المتطلبات الأساسية

المتطلبات

لا توجد متطلبات خاصة لهذا المستند.

المكونات المستخدمة

تستند المعلومات الواردة في هذا المستند إلى إصدارات البرامج والمكونات المادية التالية:

- برنامج IOS® الإصدار 12.1(1) من Cisco
- الموجهات Cisco AS5300 و Cisco 3640

ملاحظة: هناك متطلبات لتحميل مجموعة ميزات Cisco IOS -x- لوظائف برنامج حماية البوابة على جميع أنظمة Cisco الأساسية.

تم إنشاء المعلومات الواردة في هذا المستند من الأجهزة الموجودة في بيئة معملية خاصة. بدأت جميع الأجهزة المستخدمة في هذا المستند بتكوين ممسوح (افتراضي). إذا كانت شبكتك مباشرة، فتأكد من فهمك للتأثير المحتمل لأي أمر.

الاصطلاحات

للحصول على مزيد من المعلومات حول اصطلاحات المستندات، ارجع إلى اصطلاحات تلميحات Cisco التقنية.

معلومات أساسية

A gatekeeper هو كيان H.323 على شبكة LAN يوفر ترجمة العنوان والتحكم في الوصول إلى شبكة LAN للوحدات الطرفية والعبارات H.323. يمكن أن يوفر برنامج حماية البوابة خدمات أخرى إلى محطات H.323 والعبارات، مثل إدارة النطاق الترددي وموقع البوابات. يحتفظ برنامج حماية البوابة بسجل للأجهزة في شبكة الوسائط المتعددة. تقوم الأجهزة بالتسجيل مع برنامج حماية البوابة عند بدء التشغيل وطلب الإذن بإجراء مكالمة من برنامج حماية البوابة.

يمكنك إستخدام تكوين برنامج حماية البوابة في هذا المستند لهذه الأغراض:

- للمساعدة على تطوير عملية تنفيذ بروتوكول VoIP حيث قمت بتثبيت عدة بوابات وأجهزة طرفيةيتيح هذا التكوين إجراء التغييرات في نقطة مركزية، وهي حماية البوابة.
- للمساعدة في التحكم في الدخول للاستدعاء (CAC) للحد من عدد المكالمات على الشبكة
- لتنفيذ إستخدام وكيل على الشبكة لمعالجة مكالمات VoIP الخاصة بك بشكل منفصل عن حركة مرور البيانات

التكوين

في هذا القسم، تُقدّم لك معلومات تكوين الميزات الموضحة في هذا المستند.

ملاحظة: للعثور على معلومات إضافية حول الأوامر المستخدمة في هذا المستند، أستخدم أداة بحث الأوامر (للعملاء المسجلين فقط).

الرسم التخطيطي للشبكة

هذه الشبكة عبارة عن مخطط بسيط مزود ببوابتين Cisco AS5300. توجد إحدى البوابات في سان خوسيه، أما البوابة الأخرى فهي في رالي. في كل موقع، هناك تكوين برنامج حماية البوابة الذي يعمل على Cisco 3640. في الطبولوجيا التي يظهرها هذا القسم، ليس من الضروري حقا توفر "حارس بوابة" لوضع مكالمات VoIP بسيطة بين البوابين. غير أن المخطط يتضمن برنامج حماية البوابة لعرض كيفية ظهور التكوين الكامل.

تختلف تكوينات "برنامج حماية البوابة" من Cisco لهذا المخطط عن التنفيذ المنتظم لبروتوكول VoIP بهذه الطرق:

- تقوم كل بوابة لإعداد البوابة بالتسجيل مع البوابة المحلية باستخدام أوامر **واجهة voip** للعبارة **h323**. في هذه الحالة، تكون البوابات AS5300s، ومسؤول البوابة هو 3640.
- **يشير هدف جلسة العمل** في الأمر **dial-peer voice 2 voip** إلى التسجيل والقبول والحالة (RAS) بدلا من **عنوان IPv4:*IP* المناسب**. يقوم نظام الوصول عن بعد (RAS) بتنفيذ هذه المهام:تحديد موقع البوابة للتسجيل مع برنامج حماية البوابةإرسال طلبات قبول لكل مكالمةإجراء فحص لمعلومات حالة معينة للمكالمات

في شبكة H.323، لديك برنامج حماية البوابة الرئيسي لكل منطقة. يمكن أن يتحكم برنامج حماية البوابة في عدة بوابات أو إنهاء أجهزة H.323 في المنطقة. في التكوين الذي يوضح هذا القسم، يتم توجيه مكالمة إلى المنطقة المناسبة وبرنامج حماية البوابة. بعد ذلك، يستجيب برنامج حماية البوابة إلى طلب الاستدعاء باستخدام عنوان IP الخاص بالبوابة المسجلة التي تحتوي على بادئة التقنية (**tech-prefix**) التي تطابق الرقم المستدعي.

عملية المكالمة

توضح هذه الخطوات كيفية عمل عملية برنامج حماية البوابة. يضع هاتف على جانب الرالي مكالمة على الهاتف على جانب سان خوسيه:

1. Raleigh 5300a يتلقى مكالمة من ال PBX إلى 4085556400، وهو هاتف يتصل ب San Jose PBX.يتطابق هذا الرقم مع الرقم الموجود تحت **صوت نظير الطلب VoIP 2** كما يحتوي على بادئة تقنية **#408**.
2. يتضمن طلب الدخول إلى حارس بوابة Raleigh 3640A، البادئة التقنية والرقم المستدعي بالتنسيق **4085556400#408**.يطابق ال **408556400** أمر **بادئة المنطقة** من **408.....**
3. يرسل برنامج حماية البوابة في مدينة رالي طلب تحديد موقع إلى حارس بوابة سان خوسيه، سان خوسيه 3640A.
4. بما أن تكوين برنامج حماية البوابة في سان خوسيه يحتوي على San Jose 5300A مع بادئة تقنية **#408**، فإن برنامج حماية البوابة في سان خوسيه يرد على برنامج حماية البوابة في سان خوسيه 5300.
5. يتم إعادة توجيه عنوان IP هذا إلى Rali 5300A عبر تأكيد الدخول (ACF).
6. رالي 5300a تفتح مكالمة H.323 عادية مع سان خوسيه 5300a.

التكوينات

يستخدم هذا المستند التكوينات التالية:

- رالي 5300a
- رالي 3640a
- سان خوسيه 5300a
- سان خوسيه 3640a

رالي 5300a

```
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
```

رالي 3640a

```
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
```

سان خوسيه 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
```

سان خوسیه 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
```

التحقق من الصحة

يوفر هذا القسم معلومات يمكنك استخدامها للتأكد من أن التكوين يعمل بشكل صحيح.

يتم دعم بعض أوامر **العرض بواسطة** أداة مترجم الإخراج (العملاء المسجلون فقط)، والتي تتيح لك عرض تحليل إخراج أمر **العرض**.

- **show debug**—يعرض أوامر **debug** التي يتم تمكينها
- **إلغاء تصحيح الأخطاء الكل**—يوقف تشغيل كل تصحيح الأخطاء
- **show gatekeeper** — يعرض حالة برنامج حماية البوابة
- **show log**—يعرض إخراج ملف السجل
- **إظهار ملخص الصوت النشط**—يعرض إصدارا مختصرا لمحتويات جدول المكالمات النشطيعرض العرض جميع المكالمات ذات الاتصال الحالي من خلال الموجه.
- **إظهار الصوت النشط**—يعرض محتويات جدول الاتصال النشطيعرض هذا العرض جميع المكالمات ذات الاتصال الحالي من خلال الموجه.
- **show gatekeeper endpoints**— يعرض حالة تسجيل نقاط النهاية إلى برنامج حماية البوابة
- **show gatekeeper call** — يعرض المكالمات النشطة التي قام برنامج حماية البوابة بمعالجتها
- **show gatekeeper gw**— يعرض حالة تسجيل نقاط النهاية لبادئة التقنية

التحقق من صحة الموجه Rali 5300A

```
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
to 172.16.120.1:1719 172.16.120.2:51726
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> rt:<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
                                                OnTimeRvPlayout=25900
                                              GapFillWithSilence=0 ms
                                            GapFillWithPrediction=0 ms
                                         GapFillWithInterpolation=0 ms
                                            GapFillWithRedundancy=0 ms
                                             HiWaterPlayoutDelay=70 ms
                                             LoWaterPlayoutDelay=50 ms
                                                    ReceiveDelay=50 ms
                                                         LostPackets=0
                                                       EarlyPackets=0
                                                        LatePackets=0
                                                        VAD = enabled
                                                CoderTypeRate=g729r8
                                                        CodecBytes=20
                                                   SignalingType=cas
                                                       #Raleigh5300A
```

التحقق من موجه Rali 3640A

```
                                          Raleigh3640A# show gatekeeper end
                                GATEKEEPER ENDPOINT REGISTRATION
                                ================================
 CallSignalAddr  Port  RASSignalAddr   Port  Zone Name         Type    F
--    ----         ---------- ----- --------------- ----- ---------------
   RALgk1            VOIP-GW 51726    172.16.120.2  1720    172.16.120.2
                                           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
                                                RAL5300A 172.16.120.2:1720


                                                        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
on sock [0x60F2F9A0]      RASLib::parse_arq_nonstd: ARQ [172.16.120.2:51726]
                                                     Nonstd decode succeeded, remlen = 0
                                 Mar 28 00:22:48.023:  RASlib::ras_sendto: msg length 7 from
```

```
                                        to 172.16.120.2:51726 172.16.120.1:1719
                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
                                        to 172.16.110.1:1719 172.16.120.1:52893
     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
                                                  from 172.16.110.1:1719 128
             Mar 28 00:22:48.035:  RASLib::RASRecvData: LCF (seq# 20) rcvd from
             :on sock [0x612328CC] RASLib::parse_lcf_nonstd [172.16.110.1:1719]
                                        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
                                                  from 172.16.120.2:51726 76
            Mar 28 00:22:55.123: RASLib::RASRecvData: DRQ (seq# 12120) rcvd from
                                      [on sock [0x60F2F9A0 [172.16.120.2:51726]
 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
                                     [on sock [0x60F2F9A0 [172.16.120.2:51726]
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
                                      [on sock [0x60F2F9A0 [172.16.120.2:51726]
                     Mar 28 00:23:59.255: RASlib::ras_sendto: msg length 52 from
                                        to 172.16.120.2:51726 172.16.120.1:1719
  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
                                      [on sock [0x60F2F9A0 [172.16.120.2:51726]
   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
                               (Kbps)64          41                              6872-18
 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
```

التحقق من موجه SAN Jose 5300A

```
                                                  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
                                                     to 172.16.110.1:1719 172.16.110.2:52521
                    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
                                                       from 172.16.110.1:1719 24
                  Mar 28 00:22:48.047: RASLib::RASRecvData: ACF (seq# 12092) rcvd from
                                              [on sock [0x61752218 [172.16.110.1:1719]
                       ,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
                                          to 172.16.110.1:1719 172.16.110.2:52521
                 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
[on sock [0x61752218 [172.16.110.1:1719]
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> rt:<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/0:-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
OnTimeRvPlayout=21090
GapFillWithSilence=0 ms
GapFillWithPrediction=0 ms
GapFillWithInterpolation=0 ms
GapFillWithRedundancy=0 ms
HiWaterPlayoutDelay=70 ms
LoWaterPlayoutDelay=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

التحقق من موجه SAN Jose 3640A

```
SanJose3640A# show gatekeeper end
                        GATEKEEPER ENDPOINT REGISTRATION
                        ================================
 CallSignalAddr  Port  RASSignalAddr   Port  Zone Name         Type    F
--    ----         --------- ----- --------------- ----- ---------------
   SJgk1            VOIP-GW 52521    172.16.110.2  1720    172.16.110.2
                                        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
     SJ5300A 172.16.110.2:1720


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
on sock [0x60FE9B04] RASLib::parse_lrq_nonstd: LRQ Nonstd [172.16.120.1:52893]
                                        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
                                        from 172.16.110.2:52521 122
     Mar 28 00:22:48.049: RASLib::RASRecvData: ARQ (seq# 12092) rcvd from
      :on sock [0x60FE9B04] RASLib::parse_arq_nonstd [172.16.110.2:52521]
                                    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
                                  [on sock [0x60FE9B04 [172.16.110.2:52521]
 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
```

```
                                                [on sock [0x60FE9B04 [172.16.110.2:52521]
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
                                                [on sock [0x60FE9B04 [172.16.110.2:52521]
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
                                                [on sock [0x60FE9B04 [172.16.110.2:52521]
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
                                                             from 172.16.110.2:52521 74
            Mar 28 00:25:10.465: RASLib::RASRecvData: RRQ (seq# 12097) rcvd from
                                                [on sock [0x60FE9B04 [172.16.110.2:52521]
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
```

معلومات مكالمة برنامج حماية البوابة

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


                                                                        #SanJose3640A
```

استكشاف الأخطاء وإصلاحها

يوفر هذا القسم معلومات يمكنك استخدامها لاستكشاف أخطاء التكوين وإصلاحها.

أوامر استكشاف الأخطاء وإصلاحها

ملاحظة: قبل إصدار أوامر **debug**، راجع المعلومات المهمة في أوامر تصحيح الأخطاء.

- debug ras
- debug h245 asn1
- debug h225 asn1

ملاحظة: ارجع إلى فهم مدة البقاء (TTL) لبرنامج Gatekeeper واستكشاف أخطاء هذه العملية وإصلاحها. يصف هذا المستند كيفية قيام Cisco Gatekeeper بسحب نقاط النهاية باستخدام قيمة مدة البقاء (TTL).

معلومات ذات صلة

- دعم تقنية الصوت
- دعم منتجات الاتصالات الصوتية واتصالات IP
- استكشاف أخطاء خدمة IP الهاتفية من Cisco وإصلاحها
- الدعم التقني والمستندات - Cisco Systems

حول هذه الترجمة
ترجمت Cisco هذا المستند باستخدام مجموعة من التقنيات الآلية والبشرية لتقديم محتوى دعم للمستخدمين في جميع أنحاء العالم بلغتهم الخاصة. يُرجى ملاحظة أن أفضل ترجمة آلية لن تكون دقيقة كما هو الحال مع الترجمة الاحترافية التي يقدمها مترجم محترف. تخلي Cisco Systems مسئوليتها عن دقة هذه الترجمات وتُوصي بالرجوع دائمًا إلى المستند الإنجليزي الأصلي (الرابط متوفر).