

基本网守呼叫准入控制的配置

目录

[简介](#)

[先决条件](#)

[要求](#)

[使用的组件](#)

[规则](#)

[背景信息](#)

[bandwidth \(gatekeeper\) 命令](#)

[配置](#)

[网络图](#)

[配置](#)

[验证](#)

[故障排除](#)

[故障排除命令](#)

[show 和 debug 输出示例](#)

[相关信息](#)

简介

本文为基本网守呼叫准入控制提供一配置示例。

先决条件

要求

在网关能从网守前，获取正确地址解析有将满足的几个情况。当低速链路是包含的时，有为每VoIP解决方案将验证的几重点。

在尝试此配置前，请保证您符合这些要求：

- 应该注册所有网关到对应的网守
- 所有网守应该有正确拨号计划，因此他们能决定呼叫的路由。
- 准入控制可以配置限制某些区域范围的呼叫号码。

因为前两个点在[配置](#)部分考虑，我们将着重在[Background Information部分的](#)准入控制。

使用的组件

本文档中的信息基于以下软件和硬件版本：

- 三个Cisco 2600路由器。
- Cisco IOS软件版本12.2.8.5 ENTERPRISE PLUS/H323 MCM。

本文档中的信息都是基于特定实验室环境中的设备创建的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您是在真实网络上操作，请确保您在使用任何命令前已经了解其潜在影响。

规则

有关文档规则的详细信息，请参阅 [Cisco 技术提示规则](#)。

背景信息

此配置示例学习与两个区域拓扑的一个VoIP网络，由一网守管理用三个网关在两个区域。本文的AIM将提供适用于策略呼叫数量在区域之间和在他们里面准入控制配置的简单的示例。本文包括关于配置的功能的技术背景信息、设计指南和基本验证和故障排除策略。

注意：在此配置中，四路由器在同样LAN查找。然而，在您的实际结构中，所有设备可以在您网络的不同部分中使用。

经常，有高优先级数据流几来源在实际网络的。它是复杂任务区分所有这些情况，因为他们是许多，和容易俯视。然而，有在实时寿命中经常发生值得考虑的几个常见的情况。准入控制变为问题，当提供流量的优先级时的路由器是他们自己这样流量不是来源。典型的拓扑在通过链路连接的两个站点介入几语音网关提供由一个对路由器。另一拓扑介入思科CallManager与IP电话在两个站点，与网关一起对PSTN或PBX。从链路的两边，在这两种情况下我们有语音流量几来源。

有时，可能有与语音质量的一问题，如果相当数量语音流量超出优先级队列的配置带宽。这是因为产生流量的路由器和思科CallManager/IP电话没有呼叫许可的一个集中管理在给的设计以上。在这种情况下，超出带宽的数据包将丢弃。

有几个方式避免此方案。简单解决方案将配置在低延时队列(LLQ)的语音带宽接受呼叫最大从所有来源的。在没有语音流量时，未使用的带宽将授权对数据流。这可以执行，当链路的总带宽高于为呼叫最大要求的带宽时。

更多明智方案将运用在语音流量每来源的限制从链路的两端的。当您如此，从所有的概略的带宽不会超过推荐75%链路的实时带宽站点之间的。要运用那些限制，请使用max-conn命令下面VoIP拨号对等体配置。如果我们假设，仅有Cisco CallManager在一个中心站点，我们能使用其功能限制呼叫数量到分支站点，不用CallManager。此方法允许我们管理语音流量来源能够过度预定链路的情况。此方法缺点是带宽坚定的使用情况授权对来源。此方法不允许某些网关发出额外的呼叫，即使有自由带宽联机在该瞬间。

最灵活的方法将使用一个分开的实体集中的呼叫准入控制：网守。绑定有两思科CallManager (或CallManager群集的)两个站点的网守帮助。

注意：网守的使用情况总是不含义采购一个新的独立路由器。基于呼叫数量和路由器的负载，您能配置在其中的一一网守有适当的Cisco IOS功能集的现有的路由器作为Enterprise/PLUS/H323。这可帮助管理小分组，并且允许一专用的网守在仅中心站点。

应该小心设想网守方法，至于不淹没路由器与额外的开销。另外，您应该证实拓扑是否将允许这样位于网守避免在重要链接的另外的流量。

一般建议是使用独立的Cisco路由器作为专用的网守在您的网络在适当的编号您的拓扑。

考虑上面拓扑。这里，您能放所有设备到单个关守管理的两个本地区域。这在每个区域允许您有呼叫大量，但是限制呼叫数量在他们之间的。在我们的测验示例中，我们在他们中的一个将限制在两个区域到一呼叫之间的带宽，并且允许两(较高的值)呼叫中。

关于此的更详细信息，请参阅[VoIP呼叫准入控制](#)。

要完成任务，请使用描述的**bandwidth (gatekeeper)**命令在[Cisco高性能网守](#)

[bandwidth \(gatekeeper\) 命令](#)

要指定H.323流量的最大聚合带宽，请使用**bandwidth gatekeeper configuration**命令。要禁用功能，请使用此命令**no**表示。

注意：此命令允许您通过从区域的单条链路限制带宽。如果拓扑允许您通过从一个区域的几个路径发出呼叫到另一个，链路可能容易地变得订购过量。考虑此拓扑：两个区域通过两个路径只连接，允许一呼叫通过每个路径。如果带宽由一呼叫限制，不会使用第二个路径。但是，如果带宽由两呼叫限制，其中一条链路可能是订购过量的。因此此命令可以应用到只有一个路径到其他区域的区域。“星型网”拓扑是例外。虽然集线器有多条路径，不会过度预定链路，因为呼叫数量将限制在每条链路的spoke。

带宽{区域之间|总计|会话} {默认|区域 区域名称} 带宽大小

没有带宽{区域之间|总计|会话} {默认|区域 区域名称} 带宽大小

[语法说明](#)

下表描述语法：

| 语法 | 说明 |
|----------------|---|
| 区域之间 | 指定H.323流量的带宽总量从区域到其他区域。 |
| 总计 | 在区域指定H.323允许的流量的带宽总量。 |
| 会话 | 在区域指定为一会话允许的最大带宽。 |
| 默认 | 指定所有区域的默认值。 |
| 区域 区域名称 | 指定特定区域。给出特定区域。 |
| 带宽大小 | 最大带宽。对于 区域之间 和 总 ，范围是从1到10,000,000 Kbps。对于 会话 ，范围是从1到5,000 Kbps。 |

[默认设置](#)

无

[命令模式](#)

网守配置

[命令历史记录](#)

下表描述history命令：

| 版本 | 修改 |
|------------|---|
| 12.1(3)XI | 引入此指令。 |
| 12.1(5)XM | bandwidth 命令使可认识，无需使用 zone gatekeeper 命令。 |
| 12.2(2)T | 此命令集成到Cisco IOS软件版本12.2(2)T。 |
| 12.2(2)XB1 | 此命令在Cisco AS5850通用网关实现。 |

使用指南

通过使用**zone gatekeeper**命令，在上一个Cisco IOS软件版本中，功能**bandwidth**命令获取。

示例

以下示例配置区域的最大带宽对5,000 Kbps：

```
Router(config)# gatekeeper Router(config-gk)# bandwidth total default 5000
```

相关命令

带宽遥控—指定H.323流量的总带宽此网守之间和其他网守。

配置

本部分提供有关如何配置本文档所述功能的信息。

注意：要查找本文档所用命令的其他信息，请使用[命令查找工具](#)（[仅限注册用户](#)）。

网络图

本文档使用以下网络设置：

配置

AIM将限制在zone1和zone3之间的可用的带宽对一呼叫，并且允许较高的值呼叫(两在本例中)在zone1。因此我们将符合典型的呼叫许可任务的一般要求。注册、准入和状态协议(RAS)消息在H225呼叫建立消息前去。然后H4245协商跟随，实际上定义了侧的功能。因此呼叫的实时带宽在RAS消息的呼叫许可阶段和交换以后定义。所以网守处理每呼叫，64kb呼叫。所以，在带宽限制的增加在语音呼叫的区域之间应该完成增量64kb。

注意：GW_3在同一路由器配置作为网守说明低端分支机构的这样可能性。

注意：关守和网关配置的验证是故障排除GK-GW问题的重要部分。所以，简化对配置的了解，所有无关的配置命令删除。

| |
|--|
| GW_1 ECV-2600-17 |
| IOS (tm) C2600 Software (C2600-JSX-M), Version 12.2(7a), |

```
RELEASE SOFTWARE (fc1) ! hostname ECV-2610-17 ! !
interface Ethernet0/0 ip address 10.52.218.49
255.255.255.0 h323-gateway voip interface h323-gateway
voip id gk-zone1.test.com ipaddr 10.52.218.47 1718 h323-
gateway voip h323-id gw_1 h323-gateway voip tech-prefix
1# h323-gateway voip bind srcaddr 10.52.218.49 ! voice-
port 1/1/0 ! voice-port 1/1/1 ! ! dial-peer voice 1 voip
destination-pattern .... session target ras ! dial-peer
voice 2 pots destination-pattern 1711 port 1/1/1 no
register e164 ! gateway ! end
```

GW_2 ECV-2600-16

```
!
hostname ECV-2610-16
!
!
interface Ethernet0/0
 ip address 10.52.218.48 255.255.255.0
 h323-gateway voip interface h323-gateway voip id gk-
zone3.test.com ipaddr 10.52.218.47 1718 h323-gateway
voip h323-id gw_3 h323-gateway voip tech-prefix 1# h323-
gateway voip bind srcaddr 10.52.218.48 ! ! voice-port
1/1/0 ! voice-port 1/1/1 ! dial-peer voice 1 voip
destination-pattern .... session target ras ! dial-peer
voice 2 pots destination-pattern 1611 port 1/1/1 no
register e164 ! gateway ! ! end
```

GK_1 ECV-2600-15

```
hostname ECV-2610-15
↓
boot system tftp c2600-jsx-mz.122-7a.bin 10.52.218.2
↓
interface Ethernet0/0
 ip address 10.52.218.47 255.255.255.0
 half-duplex
 h323-gateway voip interface h323-gateway voip id gk-
zone1.test.com ipaddr 10.52.218.47 1718 h323-gateway
voip h323-id gw 1b h323-gateway voip tech-prefix 1#
h323-gateway voip bind srcaddr 10.52.218.47 ! ! voice-
port 1/1/0 ! voice-port 1/1/1 ! ! dial-peer voice 6 pots
destination-pattern 1511 port 1/1/1 no register e164 ! !
dial-peer voice 5 voip destination-pattern .... session
target ras ! gateway ! ! gatekeeper zone local gk-
zone1.test.com test.com 10.52.218.47 zone local gk-
zone3.test.com test.com zone prefix gk-zone1.test.com
15.. gw-priority 10 gw 1b zone prefix gk-zone3.test.com
16.. gw-priority 10 gw 3 zone prefix gk-zone1.test.com
17.. gw-priority 10 gw 1 gw-type-prefix 1#* default-
technology bandwidth interzone zone gk-zone1.test.com 64
!--- Applies the restriction between gk-zone1, and all
!--- other zones to 64bk. That allows one call only.
bandwidth total zone gk-zone1.test.com 128 !--- Applies
the restriction to the total number of calls in zone1,
!--- and allows two call in the gk-zone1. no shutdown !
end ECV-2610-15#
```

验证

本部分所提供的信息可用于确认您的配置是否正常工作。

[命令输出解释程序工具](#) ([仅限注册用户](#)) 支持某些 **show** 命令，使用此工具可以查看对 **show** 命令

输出的分析。

- **show gateway** —显示网关注册状态。
- **show gatekeeper endpoints** —列出所有网关注册对网守。
- **show gatekeeper zone prefix** —显示在网守配置的所有区域前缀。
- **show gatekeeper call** —显示网守处理的激活的呼叫。

故障排除

本部分提供的信息可用于对配置进行故障排除。

故障排除命令

[命令输出解释程序工具 \(仅限注册用户 \)](#) 支持某些 **show** 命令，使用此工具可以查看对 **show** 命令输出的分析。

注意： 在发出 **debug** 命令之前，请参阅[有关 Debug 命令的重要信息](#)。

- **debug h225 asn1** —显示H225 (RAS和Q931呼叫建立)消息。
- **debug cch323 h225** —显示H225呼叫建立消息。

这是一些有用的链路：

- [VoIP 呼叫故障排除和调试 - 基础知识](#)
- [VoIP Debug 命令](#)
- [Cisco IOS语音、视频和传真命令参考，版本12.2](#)

show 和 debug 输出示例

```
!--- First step is to check the gateway registrations. !--- On the first gateway: ECV-2610-17#show gateway Gateway gw_1 is registered to Gatekeeper gk-zone1.test.com Alias list (CLI configured) H323-ID gw_1 Alias list (last RCF) H323-ID gw_1 H323 resource thresholding is Disabled ECV-2610-17# ----- !--- And on the second Gateway: ECV-2610-16#show gateway Gateway gw_3 is registered to Gatekeeper gk-zone3.test.com Alias list (CLI configured) H323-ID gw_3 Alias list (last RCF) H323-ID gw_3 H323 resource thresholding is Disabled ECV-2610-16#----- !--- The same on the third Gateway: ECV-2610-15#show gateway Gateway gw_1b is registered to Gatekeeper gk-zone1.test.com Alias list (CLI configured) H323-ID gw_1b Alias list (last RCF) H323-ID gw_1b H323 resource thresholding is Disabled ECV-2610-15#----- !--- And on the corresponding Gatekeeper: ECV-2610-15#show gatekeeper end GATEKEEPER ENDPOINT REGISTRATION ===== CallSignalAddr Port RASignalAddr Port Zone Name Type F ----- gw_1b 10.52.218.48 1720 10.52.218.48 59067 gk-zone3.test.com VOIP-GW H323-ID: gw_3 10.52.218.49 1720 10.52.218.49 52887 gk-zone1.test.com VOIP-GW H323-ID: gw_1 Total number of active registrations = 3 ECV-2610-15# ----- !--- To check the dial plan on the Gatekeeper: ECV-2610-15#show gatekeeper zone pre ZONE PREFIX TABLE ===== GK-NAME E164-PREFIX ----- gk-zone1.test.com 15.. gk-zone3.test.com 16.. gk-zone1.test.com 17.. ECV-2610-15# !--- All configured prefixes should be seen in the zone list. ----- !--- To check the zone status on the Gatekeeper: !-- The output shows one permitted interzone call. ECV-2610-15#show gatekeeper zone st GATEKEEPER ZONES ===== GK name Domain Name RAS Address PORT FLAGS ----- !--- The output shows the bandwidth restrictions for this zone. gk-zone1.test.com 10.52.218.47 1719 LS BANDWIDTH
```



```
::= admissionConfirm : { requestSeqNum 970 bandwidth 640 callModel direct : NULL
destCallSignalAddress ipAddress : { ip '0A34DA2F'H port 1720 } irrFrequency 240 willRespondToIRR
FALSE uuiesRequested { setup FALSE callProceeding FALSE connect FALSE alerting FALSE information
FALSE releaseComplete FALSE facility FALSE progress FALSE empty FALSE } } !--- The Call setup
message from GW_3 follows. *Mar 1 14:22:21.105: H225.0 OUTGOING PDU ::= value
H323_UserInformation ::= { h323-uu-pdu { h323-message-body setup : { protocolIdentifier { 0 0 8
2250 0 2 } sourceAddress { h323-ID : {"gw_3"} } sourceInfo { gateway { protocol { voice : {
supportedPrefixes { { prefix e164 : "1#" } } } } } mc FALSE undefinedNode FALSE } activeMC FALSE
conferenceID '00000000000000000000000000000000'H conferenceGoal create : NULL callType
pointToPoint : NULL sourceCallSignalAddress ipAddress : { ip '0A34DA30'H port 11018 }
callIdentifier { guid '00000000000000000000000000000000'H } fastStart {
'0000000D4001800A040001000A34DA3041C5'H, '400000060401004D40018011140001000A34DA30...'H }
mediaWaitForConnect FALSE canOverlapSend FALSE } h245Tunneling FALSE } } *Mar 1 14:22:21.141:
H225.0 OUTGOING ENCODE BUFFER::= 20 A060008 914A0002 01400300 67007700 5F003308 80013C05
04010020 40000000 00000000 00000000 00000000 00000045 1C07000A 34DA302B 0A110000 00000000
00000000 00000000 00000032 02120000 000D4001 800A0400 01000A34 DA3041C5 1D400000 06040100
4D400180 11140001 000A34DA 3041C400 0A34DA30 41C50100 01000680 0100 *Mar 1 14:22:21.161: *Mar 1
14:22:21.417: H225.0 INCOMING ENCODE BUFFER::= 21 80060008 914A0002 00048811 00000000 00000000
00000000 00000000 00390219 0000000D 40018011 14000100 0A34DA2F 486E000A 34DA2F48 6F1D4000
00060401 004D4001 80111400 01000A34 DA3041C4 000A34DA 2F486F06 800100 *Mar 1 14:22:21.429: *Mar
1 14:22:21.429: H225.0 INCOMING PDU ::= !--- The GW_3 gets Call Proceeding from GW_1b. value
H323_UserInformation ::= { h323-uu-pdu { h323-message-body callProceeding : { protocolIdentifier
{ 0 0 8 2250 0 2 } destinationInfo { mc FALSE undefinedNode FALSE } callIdentifier { guid
'00000000000000000000000000000000'H } fastStart {
'0000000D40018011140001000A34DA2F486E000A...'H, '400000060401004D40018011140001000A34DA30...'H }
} h245Tunneling FALSE } } *Mar 1 14:22:21.617: H225.0 INCOMING ENCODE BUFFER::= 28 001A0006
0008914A 00020000 00000000 00000000 00000000 00000000 06A00100 120140B5 0000120B 60011000
011E041E 028188 *Mar 1 14:22:21.626: *Mar 1 14:22:21.626: H225.0 INCOMING PDU ::= !--- The GW_3
geta Call Progress from GW_1b. value H323_UserInformation ::= { h323-uu-pdu { h323-message-body
progress : { protocolIdentifier { 0 0 8 2250 0 2 } destinationInfo { mc FALSE undefinedNode
FALSE } callIdentifier { guid '00000000000000000000000000000000'H } h245Tunneling FALSE
nonStandardControl { { nonStandardIdentifier h221NonStandard : { t35CountryCode 181 t35Extension
0 manufacturerCode 18 } data '60011000011E041E028188' } } } } *Mar 1 14:22:21.642: H225 NONSTD
INCOMING ENCODE BUFFER::= 60 01100001 1E041E02 8188 *Mar 1 14:22:21.646: *Mar 1 14:22:21.646:
H225 NONSTD INCOMING PDU ::= !--- The GW_3 get some facility messagesfrom GW_1b. value
H323_UU_NonStdInfo ::= { version 16 protoParam qsigNonStdInfo : { iei 30 rawMesg '1E028188'H } }
*Mar 1 14:22:22.831: %SYS-3-MGDTIMER: Running timer, init, timer = 81F1AC08. -Process= "Virtual
Exec", ipl= 0, pid= 61 -Traceback= 803250A4 80325214 80325318 80EB12C0 80EB17DC 802A65F0
802B5080 8033D818 *Mar 1 14:22:22.835: H225 NONSTD OUTGOING PDU ::= value ARQnonStandardInfo ::=
{ sourceAlias { } sourceExtAlias { } } *Mar 1 14:22:22.839: H225 NONSTD OUTGOING ENCODE
BUFFER::= 00 0000 *Mar 1 14:22:22.839: *Mar 1 14:22:22.839: RAS OUTGOING PDU ::= !--- The GW_3
starts the second Call to 1711 now we send RAS message to GK. value RasMessage ::=
admissionRequest : { requestSeqNum 971 callType pointToPoint : NULL callModel direct : NULL
endpointIdentifier {"8262B76400000019"} destinationInfo { e164 : "1711" } srcInfo { h323-ID :
{"gw_3"} } bandwidth 640 callReferenceValue 24 nonStandardData { nonStandardIdentifier
h221NonStandard : { t35CountryCode 181 t35Extension 0 manufacturerCode 18 } data '000000'H }
conferenceID '00000000000000000000000000000000'H activeMC FALSE answerCall FALSE canMapAlias
TRUE callIdentifier { guid '00000000000000000000000000000000'H } willSupplyUUies FALSE } *Mar 1
14:22:22.860: RAS OUTGOING ENCODE BUFFER::= 27 8803CA00 F0003800 32003600 32004200 37003600
34003000 30003000 30003000 30003100 39010180 4A440140 03006700 77005F00 33400280 001840B5
00001203 00000000 00000000 00000000 00000000 00000004 E0200180 11000000 00000000 00000000
00000000 00000100 *Mar 1 14:22:22.876: *Mar 1 14:22:22.940: RAS INCOMING ENCODE BUFFER::= 2B
0003CA40 0280000A 34DA3106 B800EF14 00C00100 020000 *Mar 1 14:22:22.944: *Mar 1 14:22:22.944:
RAS INCOMING PDU ::= !--- The GW_3 gets permission to proceed as there are no restrictions on
zone3. value RasMessage ::= admissionConfirm : { requestSeqNum 971 bandwidth 640 callModel
direct : NULL destCallSignalAddress ipAddress : { ip '0A34DA31'H port 1720 } irrFrequency 240
willRespondToIRR FALSE uuiesRequested { setup FALSE callProceeding FALSE connect FALSE alerting
FALSE information FALSE releaseComplete FALSE facility FALSE progress FALSE empty FALSE } } *Mar
1 14:22:22.972: H225.0 OUTGOING PDU ::= !--- The GW_3 sends setup message to GW_1. value
H323_UserInformation ::= { h323-uu-pdu { h323-message-body setup : { protocolIdentifier { 0 0 8
2250 0 2 } sourceAddress { h323-ID : {"gw_3"} } sourceInfo { gateway { protocol { voice : {
supportedPrefixes { { prefix e164 : "1#" } } } } } mc FALSE undefinedNode FALSE } activeMC FALSE
conferenceID '00000000000000000000000000000000'H conferenceGoal create : NULL callType
pointToPoint : NULL sourceCallSignalAddress ipAddress : { ip '0A34DA30'H port 11019 }
```


callIdentifier { guid '00000000000000000000000000000000'H } fastStart {
'0000000D4001800A040001000A34DA30402F'H, '400000060401004D40018011140001000A34DA30...'H }
mediaWaitForConnect FALSE canOverlapSend FALSE } h245Tunneling FALSE } } *Mar 1 14:22:23.008:
H225.0 OUTGOING ENCODE BUFFER::= 20 A0060008 914A0002 01400300 67007700 5F003308 80013C05
04010020 40000000 00000000 00000000 00000000 00000045 1C07000A 34DA302B 0B110000 00000000
00000000 00000000 00000032 02120000 000D4001 800A0400 01000A34 DA30402F 1D400000 06040100
4D400180 11140001 000A34DA 30402E00 0A34DA30 402F0100 01000680 0100 *Mar 1 14:22:23.028: *Mar 1
14:22:23.220: H225.0 INCOMING ENCODE BUFFER::= 25 80060008 914A0002 01110000 00000000 00000000
00000000 00000006 800100 *Mar 1 14:22:23.224: *Mar 1 14:22:23.224: **H225.0 INCOMING PDU** ::= *!---
The GW_1 replies with Release Complete message after asking GK !--- for permission to accept
that call. !--- When the permission is denied, we set bandwidth limit.* value
H323_UserInformation ::= { h323-uu-pdu { h323-message-body **releaseComplete** : {
protocolIdentifier { 0 0 8 2250 0 2 } callIdentifier { guid '00000000000000000000000000000000'H
} } h245Tunneling FALSE } } *Mar 1 14:22:23.236: **RAS OUTGOING PDU** ::= *!--- The GW_3 notifies GK
that the call does not exist anymore.* value RasMessage ::= **disengageRequest** : { requestSeqNum
972 endpointIdentifier {"8262B76400000019"} conferenceID '00000000000000000000000000000000'H
callReferenceValue 24 disengageReason normalDrop : NULL callIdentifier { guid
'00000000000000000000000000000000'H } answeredCall FALSE } *Mar 1 14:22:23.248: RAS OUTGOING
ENCODE BUFFER::= 3E 03CB1E00 38003200 36003200 42003700 36003400 30003000 30003000 30003000
31003900 00000000 00000000 00000000 00000000 18216111 00000000 00000000 00000000 000100
*Mar 1 14:22:23.256: *Mar 1 14:22:23.288: RAS INCOMING ENCODE BUFFER::= 40 03CB *Mar 1
14:22:23.288: *Mar 1 14:22:23.288: **RAS INCOMING PDU** ::= *!--- The GK confirms that message.* value
RasMessage ::= **disengageConfirm** : { requestSeqNum 972 } ECV-2610-16#u all All possible debugging
has been turned off ECV-2610-16# -----
----- *!--- The incoming RAS message to the GK from GW_3.* ECV-2610-15#debug h225 asnl H.225
ASN1 Messages debugging is on ECV-2610-15# *Mar 11 21:54:28.313: **RAS INCOMING PDU** ::= value
RasMessage ::= **admissionRequest** : { requestSeqNum 970 callType pointToPoint : NULL callModel
direct : NULL endpointIdentifier {"8262B76400000019"} destinationInfo { e164 : "1511" } srcInfo
{ h323-ID : {"gw_3"} } bandWidth 640 callReferenceValue 23 nonStandardData {
nonStandardIdentifier h221NonStandard : { t35CountryCode 181 t35Extension 0 manufacturerCode 18
} data '000000'H } conferenceID '00000000000000000000000000000000'H activeMC FALSE answerCall
FALSE canMapAlias TRUE callIdentifier { guid '00000000000000000000000000000000'H }
willSupplyUUIEs FALSE } *Mar 11 21:54:28.334: H225 NONSTD INCOMING ENCODE BUFFER::= 00 0000 *Mar
11 21:54:28.334: *Mar 11 21:54:28.334: H225 NONSTD INCOMING PDU ::= value ARQnonStandardInfo ::=
{ sourceAlias { } sourceExtAlias { } } *!--- The outgoing RAS message fro GK to GW_3 with
permission to start call.* *Mar 11 21:54:28.338: **RAS OUTGOING PDU** ::= value RasMessage ::=
admissionConfirm : { requestSeqNum 970 bandWidth 640 callModel direct : NULL
destCallSignalAddress ipAddress : { ip '0A34DA2F'H port 1720 } irrFrequency 240 willRespondToIRR
FALSE uuiesRequested { setup FALSE callProceeding FALSE connect FALSE alerting FALSE information
FALSE releaseComplete FALSE facility FALSE progress FALSE empty FALSE } } *Mar 11 21:54:28.350:
RAS OUTGOING ENCODE BUFFER::= 2B 0003C940 0280000A 34DA2F06 B800EF14 00C00100 020000 *Mar 11
21:54:28.354: *Mar 11 21:54:28.446: H225.0 INCOMING ENCODE BUFFER::= 20 A0060008 914A0002
01400300 67007700 5F003308 80013C05 04010020 40000000 00000000 00000000 00000045
1C07000A 34DA302B 0A110000 00000000 00000000 00000000 00000032 02120000 000D4001 800A0400
01000A34 DA3041C5 1D400000 06040100 4D400180 11140001 000A34DA 3041C400 0A34DA30 41C50100
01000680 0100 *Mar 11 21:54:28.466: *Mar 11 21:54:28.470: **H225.0 INCOMING PDU** ::= *!--- The
incoming H323(Q931) message from GW_3 to GW_1b on the same router as GK.* value
H323_UserInformation ::= { h323-uu-pdu { h323-message-body **setup** : { protocolIdentifier { 0 0 8
2250 0 2 } sourceAddress { h323-ID : {"gw_3"} } sourceInfo { gateway { protocol { voice : {
supportedPrefixes { { prefix e164 : "1#" } } } } } mc FALSE undefinedNode FALSE } activeMC FALSE
conferenceID '00000000000000000000000000000000'H conferenceGoal create : NULL callType
pointToPoint : NULL sourceCallSignalAddress ipAddress : { ip '0A34DA30'H port 11018 }
callIdentifier { guid '00000000000000000000000000000000'H } fastStart {
'0000000D4001800A040001000A34DA3041C5'H, '400000060401004D40018011140001000A34DA30...'H }
mediaWaitForConnect FALSE canOverlapSend FALSE } h245Tunneling FALSE } } *Mar 11 21:54:28.514:
H225 NONSTD OUTGOING PDU ::= value ARQnonStandardInfo ::= { sourceAlias { } sourceExtAlias { } }
*Mar 11 21:54:28.518: H225 NONSTD OUTGOING ENCODE BUFFER::= 00 0000 *Mar 11 21:54:28.518: *Mar
11 21:54:28.518: **RAS OUTGOING PDU** ::= *!--- The GW_1b asks GK if it can accept call from GW_3.*
value RasMessage ::= **admissionRequest** : { requestSeqNum 1347 callType pointToPoint : NULL
callModel direct : NULL endpointIdentifier {"82717F5C0000001B"} destinationInfo { e164 : "1511"
} srcInfo { h323-ID : {"gw_3"} } srcCallSignalAddress ipAddress : { ip '0A34DA30'H port 11018 }
bandWidth 640 callReferenceValue 29 nonStandardData { nonStandardIdentifier h221NonStandard : {
t35CountryCode 181 t35Extension 0 manufacturerCode 18 } data '000000'H } conferenceID
'00000000000000000000000000000000'H activeMC FALSE answerCall TRUE canMapAlias TRUE

callIdentifier { guid '00000000000000000000000000000000'H } willSupplyUIEs FALSE } *Mar 11 21:54:28.542: RAS OUTGOING ENCODE BUFFER::= 27 98054200 F0003800 32003700 31003700 46003500 43003000 30003000 30003000 30003100 42010180 48440140 03006700 77005F00 33000A34 DA302B0A 40028000 1D40B500 00120300 00000000 00000000 00000000 00000000 000044E0 20018011 00000000 00000000 00000000 000100 *Mar 11 21:54:28.558: *Mar 11 21:54:28.562: RAS INCOMING ENCODE BUFFER::= 27 98054200 F0003800 32003700 31003700 46003500 43003000 30003000 30003000 30003100 42010180 48440140 03006700 77005F00 33000A34 DA302B0A 40028000 1D40B500 00120300 00000000 00000000 00000000 00000000 000044E0 20018011 00000000 00000000 00000000 000100 *Mar 11 21:54:28.578: *Mar 11 21:54:28.582: **RAS INCOMING PDU** ::= *!--- That is the same RAS message. The GK gets it, and sees the sequence number. !--- The GK is on the same router as GW_1b, so all messages can be seen twice.* value RasMessage ::= **admissionRequest** : { requestSeqNum 1347 callType pointToPoint : NULL callModel direct : NULL endpointIdentifier {"82717F5C0000001B"} destinationInfo { e164 : "1511" } srcInfo { h323-ID : {"gw_3"} } srcCallSignalAddress ipAddress : { ip '0A34DA30'H port 11018 } bandwidth 640 callReferenceValue 29 nonStandardData { nonStandardIdentifier h221NonStandard : { t35CountryCode 181 t35Extension 0 manufacturerCode 18 } data '000000' } conferenceID '00000000000000000000000000000000'H activeMC FALSE answerCall TRUE canMapAlias TRUE callIdentifier { guid '00000000000000000000000000000000'H } willSupplyUIEs FALSE } *Mar 11 21:54:28.606: H225 NONSTD INCOMING ENCODE BUFFER::= 00 0000 *Mar 11 21:54:28.606: *Mar 11 21:54:28.606: H225 NONSTD INCOMING PDU ::= value ARQnonStandardInfo ::= { sourceAlias { } sourceExtAlias { } } *Mar 11 21:54:28.610: **RAS OUTGOING PDU** ::= *!--- The GK grants the permission to GW_1b. !--- This is a message in the GK debug outgoing* value RasMessage ::= **admissionConfirm** : { requestSeqNum 1347 bandwidth 640 callModel direct : NULL destCallSignalAddress ipAddress : { ip '0A34DA2F'H port 1720 } irrFrequency 240 willRespondToIRR FALSE uuiesRequested { setup FALSE callProceeding FALSE connect FALSE alerting FALSE information FALSE releaseComplete FALSE facility FALSE progress FALSE empty FALSE } } *Mar 11 21:54:28.622: RAS OUTGOING ENCODE BUFFER::= 2B 00054240 0280000A 34DA2F06 B800EF14 00C00100 020000 *Mar 11 21:54:28.626: *Mar 11 21:54:28.630: RAS INCOMING ENCODE BUFFER::= 2B 00054240 0280000A 34DA2F06 B800EF14 00C00100 020000 *Mar 11 21:54:28.634: *Mar 11 21:54:28.634: **RAS INCOMING PDU** ::= *!--- The GK grants the permission to GW_1b. !--- This is a message in the GW_1b debug incoming.* value RasMessage ::= **admissionConfirm** : { requestSeqNum 1347 bandwidth 640 callModel direct : NULL destCallSignalAddress ipAddress : { ip '0A34DA2F'H port 1720 } irrFrequency 240 willRespondToIRR FALSE uuiesRequested { setup FALSE callProceeding FALSE connect FALSE alerting FALSE information FALSE releaseComplete FALSE facility FALSE progress FALSE empty FALSE } } *Mar 11 21:54:28.654: %SYS-3-MGDTIMER: Timer has parent, timer link, timer = 820AE990. -Process= "CC-API_VCM", ipl= 6, pid= 93 -Traceback= 80325850 8032A720 80E74850 8033D818 *Mar 11 21:54:28.666: **H225.0 OUTGOING PDU** ::= *!--- The GW_1b replies to GW_3 setup message.* value H323_UserInformation ::= { h323-uu-pdu { h323-message-body **callProceeding** : { protocolIdentifier { 0 0 8 2250 0 2 } destinationInfo { mc FALSE undefinedNode FALSE } callIdentifier { guid '00000000000000000000000000000000'H } fastStart { '0000000D40018011140001000A34DA2F486E000A...'H, '400000060401004D40018011140001000A34DA30...'H } h245Tunneling FALSE } } *Mar 11 21:54:28.682: H225.0 OUTGOING ENCODE BUFFER::= 21 80060008 914A0002 00048811 00000000 00000000 00000000 00000000 00390219 0000000D 40018011 14000100 0A34DA2F 486E000A 34DA2F48 6F1D4000 00060401 004D4001 80111400 01000A34 DA3041C4 000A34DA 2F486F06 800100 *Mar 11 21:54:28.694: *Mar 11 21:54:28.710: H225 NONSTD OUTGOING PDU ::= value H323_UU_NonStdInfo ::= { version 16 protoParam qsigNonStdInfo : { iei 30 rawMesg '1E028188'H } } *Mar 11 21:54:28.714: H225 NONSTD OUTGOING ENCODE BUFFER::= 60 01100001 1E041E02 8188 *Mar 11 21:54:28.714: *Mar 11 21:54:28.714: **H225.0 OUTGOING PDU** ::= *!--- The GW_1b replies to GW_3 setup message and sends second message.* value H323_UserInformation ::= { h323-uu-pdu { h323-message-body **progress** : { protocolIdentifier { 0 0 8 2250 0 2 } destinationInfo { mc FALSE undefinedNode FALSE } callIdentifier { guid '00000000000000000000000000000000'H } } h245Tunneling FALSE nonStandardControl { { nonStandardIdentifier h221NonStandard : { t35CountryCode 181 t35Extension 0 manufacturerCode 18 } data '60011000011E041E028188'H } } } } *Mar 11 21:54:28.734: H225.0 OUTGOING ENCODE BUFFER::= 28 001A0006 0008914A 00020000 00000000 00000000 00000000 00000000 06A00100 120140B5 0000120B 60011000 011E041E 028188 *Mar 11 21:54:28.742: *Mar 11 21:54:30.161: RAS INCOMING ENCODE BUFFER::= 27 8803CA00 F0003800 32003600 32004200 37003600 34003000 30003000 30003000 30003100 39010180 4A440140 03006700 77005F00 33400280 001840B5 00001203 00000000 00000000 00000000 00000000 00000004 E0200180 11000000 00000000 00000000 00000000 00000100 *Mar 11 21:54:30.177: *Mar 11 21:54:30.181: **RAS INCOMING PDU** ::= *!--- The GK gets ARQ from GW_3 for the second call.* value RasMessage ::= **admissionRequest**: { requestSeqNum 971 callType pointToPoint : NULL callModel direct : NULL endpointIdentifier {"8262B76400000019"} destinationInfo { e164 : "1711" } srcInfo { h323-ID : {"gw_3"} } bandwidth 640 callReferenceValue 24 nonStandardData { nonStandardIdentifier h221NonStandard : { t35CountryCode 181 t35Extension 0 manufacturerCode 18 } data '000000'H } conferenceID '00000000000000000000000000000000'H activeMC FALSE answerCall FALSE canMapAlias TRUE

callIdentifier { guid '00000000000000000000000000000000'H } willSupplyUIEs FALSE } *Mar 11 21:54:30.197: H225 NONSTD INCOMING ENCODE BUFFER::= 00 0000 *Mar 11 21:54:30.201: *Mar 11 21:54:30.201: H225 NONSTD INCOMING PDU ::= value ARQnonStandardInfo ::= { sourceAlias { } sourceExtAlias { } } *Mar 11 21:54:30.205: **RAS OUTGOING PDU** ::= *!--- The GK grants permission to GW_3, as there are no restrictions for zone3.* value RasMessage ::= **admissionConfirm** : { requestSeqNum 971 bandwidth 640 callModel direct : NULL destCallSignalAddress ipAddress : { ip '0A34DA31'H *!--- The hexadecimal number is 10.52.218.49, IP of GW_1.* port 1720 } irrFrequency 240 willRespondToIRR FALSE uuiesRequested { setup FALSE callProceeding FALSE connect FALSE alerting FALSE information FALSE releaseComplete FALSE facility FALSE progress FALSE empty FALSE } } *Mar 11 21:54:30.217: RAS OUTGOING ENCODE BUFFER::= 2B 0003CA40 0280000A 34DA3106 B800EF14 00C00100 020000 *Mar 11 21:54:30.221: *Mar 11 21:54:30.429: RAS INCOMING ENCODE BUFFER::= 27 98045F00 F0003800 32003300 38003600 30004400 34003000 30003000 30003000 30003100 41010180 4A440140 03006700 77005F00 33000A34 DA302B0B 40028000 2840B500 00120300 00000000 00000000 00000000 00000000 00000000 000100 *Mar 11 21:54:30.445: *Mar 11 21:54:30.445: **RAS INCOMING PDU** ::= *!--- The incoming request from GW_1 asks for permission to accept call from GW_3.* value RasMessage ::= **admissionRequest** : { requestSeqNum 1120 callType pointToPoint : NULL callModel direct : NULL endpointIdentifier {"823860D40000001A"} destinationInfo { e164 : "1711" } srcInfo { h323-ID : {"gw_3"} } srcCallSignalAddress ipAddress : { ip '0A34DA30'H port 11019 } bandwidth 640 callReferenceValue 40 nonStandardData { nonStandardIdentifier h221NonStandard : { t35CountryCode 181 t35Extension 0 manufacturerCode 18 } data '000000'H } conferenceID '00000000000000000000000000000000'H activeMC FALSE answerCall TRUE canMapAlias TRUE callIdentifier { guid '00000000000000000000000000000000'H } willSupplyUIEs FALSE } *Mar 11 21:54:30.469: H225 NONSTD INCOMING ENCODE BUFFER::= 00 0000 *Mar 11 21:54:30.469: *Mar 11 21:54:30.469: H225 NONSTD INCOMING PDU ::= value ARQnonStandardInfo ::= { sourceAlias { } sourceExtAlias { } } *!--- The GK does not allow the call to come through, and replies with ARJ.* *Mar 11 21:54:30.473: **RAS OUTGOING PDU** ::= value RasMessage ::= **admissionReject** : { requestSeqNum 1120 rejectReason requestDenied : NULL } *Mar 11 21:54:30.477: RAS OUTGOING ENCODE BUFFER::= 2C 045F20 *Mar 11 21:54:30.477: *Mar 11 21:54:30.541: RAS INCOMING ENCODE BUFFER::= 3E 03CB1E00 38003200 36003200 42003700 36003400 30003000 30003000 30003000 31003900 00000000 00000000 00000000 00000000 18216111 00000000 00000000 00000000 00000000 000100 *Mar 11 21:54:30.553: *Mar 11 21:54:30.557: **RAS INCOMING PDU** ::= *!--- The GW_3 notifies GK that call does not exist anymore.* value RasMessage ::= **disengageRequest** : { requestSeqNum 972 endpointIdentifier {"8262B76400000019"} conferenceID '00000000000000000000000000000000'H callReferenceValue 24 disengageReason normalDrop : NULL callIdentifier { guid '00000000000000000000000000000000'H } answeredCall FALSE } *Mar 11 21:54:30.565: RAS OUTGOING PDU ::= *!-- The GK confirms the message from GW_3* value RasMessage ::= **disengageConfirm** : { requestSeqNum 972 } ----- *!--- The call setup from GW_1 perspective.* ECV-2610-17#deb h225 asn1 H.225 **ASN1 Messages debugging is on** ECV-2610-17# *Mar 2 22:55:40: **H225.0 INCOMING ENCODE BUFFER::= 20** A0060008 914A0002 01400300 67007700 5F003308 80013C05 04010020 40000000 00000000 00000000 00000000 00000045 1C07000A 34DA302B 0B110000 00000000 00000000 00000000 00000032 02120000 000D4001 800A0400 01000A34 DA30402F 1D400000 06040100 4D400180 11140001 000A34DA 30402E00 0A34DA30 402F0100 01000680 0100 *Mar 2 22:55:40: *Mar 2 22:55:40: **H225.0 INCOMING PDU** ::= *!--- The GW_1 gets the H323 (Q931) setup message from GW_3.* value H323_UserInformation ::= { h323-uu-pdu { h323-message-body **setup** : { protocolIdentifier { 0 0 8 2250 0 2 } sourceAddress { h323-ID : {"gw_3"} } sourceInfo { gateway { protocol { voice : { supportedPrefixes { { prefix e164 : "1#" } } } } } mc FALSE undefinedNode FALSE } activeMC FALSE conferenceID '00000000000000000000000000000000'H conferenceGoal create : NULL callType pointToPoint : NULL sourceCallSignalAddress ipAddress : { ip '0A34DA30'H port 11019 } callIdentifier { guid '00000000000000000000000000000000'H } fastStart { '0000000D4001800A040001000A34DA30402F'H, '400000060401004D40018011140001000A34DA30...'H } mediaWaitForConnect FALSE canOverlapSend FALSE } h245Tunneling FALSE } } *Mar 2 22:55:40: H225 NONSTD OUTGOING PDU ::= value ARQnonStandardInfo ::= { sourceAlias { } sourceExtAlias { } } *Mar 2 22:55:40: H225 NONSTD OUTGOING ENCODE BUFFER::= 00 0000 *Mar 2 22:55:40: *Mar 2 22:55:40: **RAS OUTGOING PDU** ::= *!--- The GW_1 asks GK for permission to accept the call.* value RasMessage ::= **admissionRequest** : { requestSeqNum 1120 callType pointToPoint : NULL callModel direct : NULL endpointIdentifier {"823860D40000001A"} destinationInfo { e164 : "1711" } srcInfo { h323-ID : {"gw_3"} } srcCallSignalAddress ipAddress : { ip '0A34DA30'H port 11019 } bandwidth 640 callReferenceValue 40 nonStandardData { nonStandardIdentifier h221NonStandard : { t35CountryCode 181 t35Extension 0 manufacturerCode 18 } data '000000'H } conferenceID '00000000000000000000000000000000'H activeMC FALSE answerCall TRUE canMapAlias TRUE callIdentifier { guid '00000000000000000000000000000000'H } willSupplyUIEs FALSE } *Mar 2 22:55:40: RAS OUTGOING ENCODE BUFFER::= 27 98045F00 F0003800 32003300 38003600 30004400 34003000 30003000 30003000 30003100 41010180 4A440140 03006700 77005F00 33000A34 DA302B0B 40028000 2840B500 00120300 00000000 00000000 00000000 00000000

```
000044E0 20018011 00000000 00000000 00000000 00000000 000100 *Mar 2 22:55:41: *Mar 2 22:55:41:
RAS INCOMING ENCODE BUFFER::= 2C 045F20 *Mar 2 22:55:41: *Mar 2 22:55:41: RAS INCOMING PDU ::=
!--- The GK denies permission to accept the call from GW_3 due to bandwidth limit. value
RasMessage ::= admissionReject : { requestSeqNum 1120 rejectReason requestDenied : NULL } *Mar 2
22:55:41: H225.0 OUTGOING PDU ::= !--- The GW_1 rejects call setup from GW_3. value
H323_UserInformation ::= { h323-uu-pdu { h323-message-body releaseComplete : {
protocolIdentifier { 0 0 8 2250 0 2 } callIdentifier { guid '00000000000000000000000000000000'H
} } h245Tunneling FALSE } } *Mar 2 22:55:41: H225.0 OUTGOING ENCODE BUFFER::= 25 80060008
914A0002 01110000 00000000 00000000 00000000 00000000 800100 *Mar 2 22:55:41: ECV-2610-17# ECV-
2610-17# ECV-2610-17#u all All possible debugging has been turned off -----
-----
```

[相关信息](#)

- [了解 Cisco 网守带宽管理与故障排除](#)
- [了解 H.323 网守](#)
- [Cisco高性能网守](#)
- [配置 H.323 网关](#)
- [配置 H.323 网守](#)
- [为虚拟接口配置H.323支持](#)
- [语音技术支持](#)
- [语音和统一通信产品支持](#)
- [Cisco IP 电话故障排除](#)
- [技术支持 - Cisco Systems](#)