

基本的两区域Cisco网关到网守配置

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简介

本文档介绍包含一个双区域拓扑的 VoIP 网络，该拓扑由两个 Cisco 网守管理，并且每个区域中包含一个 Cisco 网关。本文的目的是提供能够让用户避免一些已知问题的基本配置，并为基于网守的网络创建可靠基础。本文档包括所配置功能的相关技术背景信息、设计指南和基本验证与故障排除策略。

特别注意在下面的配置中，四台路由器位于同一个LAN。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。

[开始使用前](#)

[规则](#)

有关文档规则的详细信息，请参阅 [Cisco 技术提示规则](#)。

[先决条件](#)

本文档没有任何特定的前提条件。

[使用的组件](#)

已对该设备进行了以下配置测试：

- 四台Cisco 2600，带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。如果您使用的是真实网络，请确保您在使用任何命令前已经了解其潜在影响。

配置

本部分提供有关如何配置本文档所述功能的信息。

注：要查找有关本文档中使用的命令的其他信息，请使用[命令查找工具](#)（[仅注册客户](#)）。

[网关到网守配置的一般要求](#)

在网关从网守获得正确的地址解析之前，必须满足几个条件。

要验证如下两个重要方面：

- 所有网关都应注册到相应的网守。
- 所有网守都应有正确的拨号计划。

注册

成功注册是第一个必需步骤。还应考虑以下附加因素：

- 如果网关具有局外交换站 (FXS) 接口，则在普通旧式电话服务 (POTS) 拨号对等体上，添加 **no register e164** 命令。这可避免 Cisco Bug ID [CSCdw60626](#)（[仅限注册用户](#)）中说明的[网关注册问题](#)。不是使用 e164 编号进行直接 FXS 的端口注册，可以为网关添加区域前缀并基于区域前缀做出路由决定。
- 通常，首选为网关定义技术前缀。虽然技术前缀的出现主要影响呼叫路由，但是它也适于可靠的注册。

有关网关到网守注册问题的详细信息，请参阅[排除网守注册问题](#)。

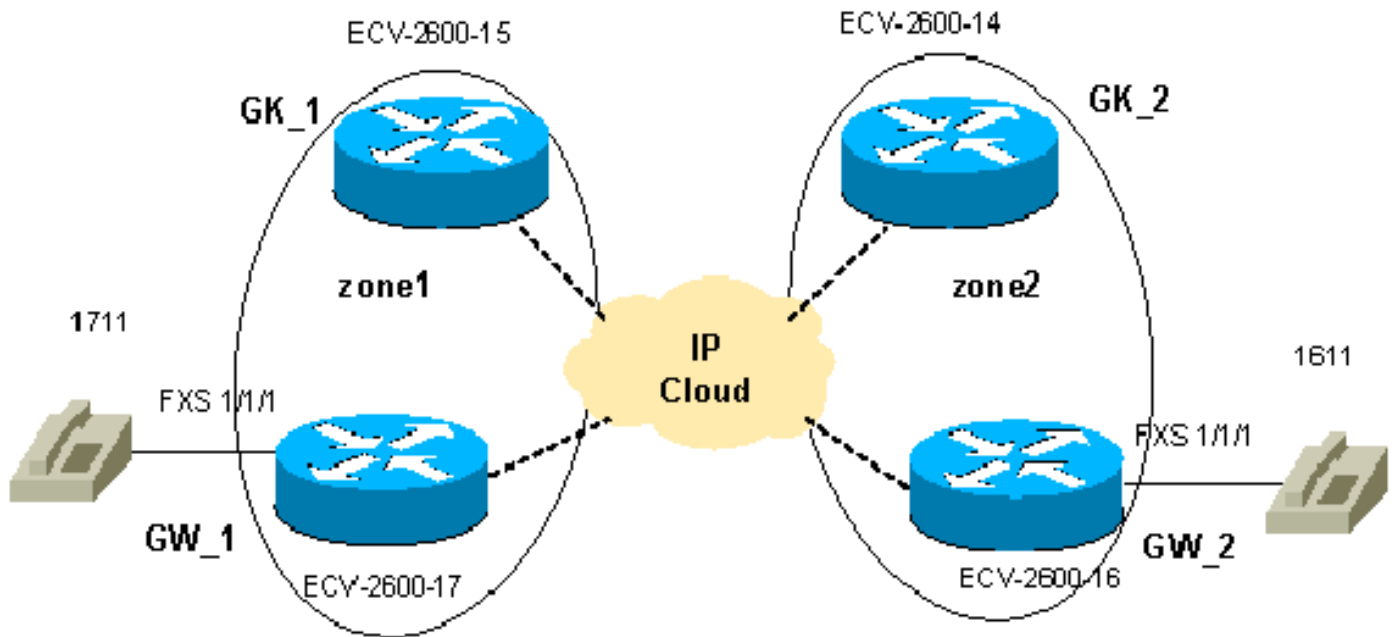
呼叫路由

- 为了实现可靠呼叫路由，应使用某种技术前缀注册所有网关。技术前缀的目的是区分不同类型的呼叫和网关的对应类型。因此，虽然可以使用技术前缀来做出路由决策，但更好的做法是使用技术前缀来根据区域前缀区分呼叫和路由类型。使用此方法，所有VoIP网关都可以配置相同的技术前缀（例如1#*，如本文档中的示例所示）。
- 首选显式为区域前缀配置主网关。
- 将 H.323 信令绑定到 Cisco IOS 网关或路由器上的特定 IP 地址。当Cisco IOS网关有多个被激活的IP接口时，某些H.323消息可能源自某个IP地址，而其他H.323消息则可能参考不同的源地址。如果回环接口可用于识别网关，或者网络中有一个防火墙和记帐服务器，**h323-gateway voip bind srcaddr**命令则是必要的。此命令已引入 Cisco IOS 软件版本 12.1.2T，[为虚拟接口配置 H.323 支持](#)中进行了相应介绍。

有关网守呼叫路由的详细信息，请参阅[了解 Cisco IOS H.323 网守呼叫路由](#)。

网络图

本文档使用下图所示的网络设置。



配置

本文档使用以下配置。

网守和网关的配置的验证对于排除网关到网守的问题故障非常重要。为了简化对配置的了解，已删除所有无关配置命令。

- [GW 1 - ECV-2600-17](#)
- [GW 2 - ECV-2600-16](#)
- [GK 1 ECV-2600-15](#)
- [GK 2 ECV-2600-14](#)

GW_1 - ECV-2600-17

```
IOS (tm) C2600 Software (C2600-JSX-M), Version 12.2(7a),  
RELEASE SOFTWARE (fcl)  
!  
hostname ECV-2610-17  
!  
!  
interface Ethernet0/0  
 ip address 10.52.218.49 255.255.255.0  
h323-gateway voip interface  
!---- This command enables VoIP GW functions on the  
interface. h323-gateway voip id gk-zone1.test.com ipaddr  
10.52.218.47  
1718  
!---- This command defines the GK this GW works with.  
h323-gateway voip h323-id gw_1  
!---- This command defines the GW alias for the GK.  
h323-gateway voip tech-prefix 1#  
!---- It is desirable to have tech prefix on the GW for  
!---- reliable registration and call routing. h323-  
gateway voip bind srcaddr 10.52.218.49  
!---- This command is not necessary in this simple  
topology, !---- but for complex networks, it is
```

```
recommended to use it. ?? ! voice-port 1/1/0 ! voice-
port 1/1/1 ! ! dial-peer voice 1 voip destination-
pattern 16.. session target ras
!---- All IP addresses for the destination pattern 16..
should !---- be resolved through the requests to the GK.
! dial-peer voice 2 pots destination-pattern 1711 port
1/1/1 no register e164
!---- This command prevents registration of this number
with !---- the GK. The GW is registered with the GK with
this alias only. ! 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-zone2.test.com ipaddr
10.52.218.46 1718

h323-gateway voip h323-id gw_2
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 17..
 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
!
interface Ethernet0/0
 ip address 10.52.218.47 255.255.255.0
!
gatekeeper
zone local gk-zone1.test.com test.com 10.52.218.47
!---- This command defines the local zone. The GK name
and !---- zone name have the same meaning. zone remote
gk-zone2.test.com test.com 10.52.218.46 1719
!---- This command defines the name of the remote GK
(zone). zone prefix gk-zone2.test.com 16..
!---- This command explicitly defines the number length
```

```
with !---- the number of dots. zone prefix gk-
zone1.test.com 17.. gw-priority 10 gw_1
!---- This command explicitly defines which GW handles
!---- calls for 17.. numbers that could be done for the
!---- local zones only. gw-type-prefix 1#* default-
technology
!---- This command defines the default technology prefix
!---- that is necessary for routing decisions. no
shutdown
!--- This command turns the service up. ! end
```

GK_2 ECV-2600-14

```
!
hostname ECV-2610-14
!
interface Ethernet0/0
 ip address 10.52.218.46 255.255.255.0
!
gatekeeper zone local gk-zone2.test.com test.com
10.52.218.46
zone remote gk-zone1.test.com test.com 10.52.218.47 1719
zone prefix gk-zone2.test.com 16.. gw-priority 10 gw_2
zone prefix gk-zone1.test.com 17..
gw-type-prefix 1#* default-technology
no shutdown
!
end
```

验证

本部分提供的信息可帮助您确认您的配置是否可正常运行。

[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：在尝试任何debug命令之前，请参[阅有关debug命令的重要信息](#)。有关下面的命令的详细信息，请参[阅本文档的故障排除命令部分](#)。

- show gateway - 显示网关注册状态。
- show gatekeeper endpoints - 显示注册到网守的所有网关。
- show gatekeeper zone prefix - 显示网守上配置的所有区域前缀。
- show gatekeeper call - 显示网守处理的所有活动呼叫。
- debug h225 asn1 — 显示H225（注册、准入和状态[RAS]和Q931呼叫设置）消息。
- debug cch323 h225 — 显示H225呼叫设置消息。
- [VoIP 呼叫故障排除和调试基础](#)
- [VoIP Debug 命令](#)
- [Cisco IOS语音、视频和传真命令参考，版本12.2](#)

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

要排除故障，请检查以下几个重要方面：

- 所有网关都已注册到相应网守。
- 网关应具有正确的拨号计划（配置了拨号对等体）。
- 网守应具有正确的拨号计划（配置了区域前缀）。

[故障排除和调试 VoIP 呼叫基础中描述的操作步骤](#)，补充了网关与网守交互作用相关的调试和显示命令的输出，应当被用作解决与其他Cisco IOS子系统相关的语音问题。`show`命令的示例输出突出显示了以上步骤，而`debug`输出则显示了您的所有4台路由器上的RAS和H225消息的顺序。

注意：`debug h225 asn1`命令会生成非常大的输出，因此应该谨慎使用。某些不必要的输出已从下面的 `debug` 命令中删除。

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

```
!--- Check the GW registration on the GW. 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 DisabledECV-2610-17#
-----

!--- And on the corresponding GK. ?? ECV-2610-15#show
gatek en
  GATEKEEPER ENDPOINT REGISTRATION
  =====
CallSignalAddr Port RASSignalAddrPort Zone Name Type F
-----
- - -
10.52.218.49 1720 10.52.218.4951194 gk-zone1.test.com
VOIP-GW
  H323-ID: gw_1
Total number of active registrations = 1

ECV-2610-15#
-----

  ??

!--- The same for the second GW. ECV-2610-16#show
gateway
  Gateway gw_2 is registered to Gatekeeper gk-
zone2.test.com ??
Alias list (CLI configured)
  H323-ID gw_2
Alias list (last RCF)
  H323-ID gw_2
  ?? H323 resource thresholding is Disabled
ECV-2610-16#
-----
```

```

----??

!--- And the second corresponding GK. ECV-2610-14#show
gatek en
                GATEKEEPER ENDPOINT REGISTRATION
                =====
CallSignalAddr Port RASSignalAddr Port Zone Name Type F
-----
-- --
10.52.218.48 1720 10.52.218.48 52080 gk-zone2.test.com
VOIP-GW
H323-ID:
    gw_2
Total number of active registrations = 1 ??

ECV-2610-14#
-----
!--- To check the dial plan on the GKs: ?? ECV-2610-
15#show gatek zone pr
    ZONE PREFIX TABLE
    =====
GK-NAME  E164-PREFIX
-----
gk-zone2.test.com 16..
gk-zone1.test.com 17..??

ECV-2610-15#
ECV-2610-15#
!--- All configured prefixes should be seen in the zone
list. -----
-----?? !--- To check the dial plan on the GKs:
ECV-2610-14# ECV-2610-14#show gatek zone pr
    ZONE PREFIX TABLE
    =====
GK-NAME  E164-PREFIX
-----
gk-zone2.test.com 16..
gk-zone1.test.com 17..??

ECV-2610-14#
-----
----??

ECV-2610-15#show gatekeeper call
Total number of active calls = 1.
                GATEKEEPER CALL INFO
                =====
LocalCallIDAge(secs) BW
5-0 1 64(Kbps)
Endpt(s): Alias E.164Addr CallSignalAddr Port
RASSignalAddr Port
src EP: gw_2 1611 10.52.218.48 1720 10.52.218.48 59067
dst EP: gw_1 1711 10.52.218.49 1720 10.52.218.49
58841??

ECV-2610-15#
-----
-----??

!--- The conversation between the GW and the GK consists
of !--- exchange RAS messages. Here are two messages
that show !--- successful registration of the GW to the

```

```

GK. ECV-2610-17# ECV-2610-17#debug h225 asn1
H.225 ASN1 Messages debugging is on
ECV-2610-17#
*Mar 2 07:45:53: RAS OUTGOING PDU ::=
!--- The GW sends a RAS registration request message to
the GK. value RasMessage ::= registrationRequest :
{
  requestSeqNum 93
  protocolIdentifier { 0 0 8 2250 0 2 }
  discoveryComplete FALSE
  callSignalAddress
  {
  }
  rasAddress
  {
    ipAddress :
    {
      ip '0A34DA31'H
      port 57733
    }
  }
  terminalType
  {
    mc FALSE
    undefinedNode FALSE
  }
  gatekeeperIdentifier {"gk-zone1.test.com"}
    endpointVendor
  {
    vendor
  {
    t35CountryCode 181
    t35Extension 0
    manufacturerCode 18
  }
  }
  timeToLive 60
  keepAlive TRUE
  endpointIdentifier {"8215266C0000000F"}
    willSupplyUUIEs FALSE
  }
}

*Mar 2 07:45:53:
*Mar 2 07:45:53: RAS INCOMING PDU ::=
!--- The GK accepts the registration request and replies
with !--- a confirmation. value RasMessage ::=
registrationConfirm :
{
  requestSeqNum 93
  protocolIdentifier { 0 0 8 2250 0 2 }
  callSignalAddress
  {
  }
  gatekeeperIdentifier {"gk-zone1.test.com"}
    endpointIdentifier {"8215266C0000000F"}
  timeToLive 60
    willRespondToIRR FALSE
  }??
}

-----??

!--- The incoming H225 call setup message from the
remote GW. !--- The example is the debug cch323 h225

```


command.

ECV-2610-17# **debug cch323 h225**

*Mar 2 07:46:03: **cch323_h225_receiver**: received msg of type

SETUPIND_CHOSEN

*Mar 2 07:46:03: cch323_h225_setup_ind: callingNumber[]
calledNumber[1711]

*Mar 2 07:46:03: cch323_h225_setup_ind--calling IE NOT present

*Mar 2 07:46:03:==== PI in cch323_h225_setup_ind = 0??

*Mar 2 07:46:03: Receive: infoXCap 0??

*Mar 2 07:46:03: Receive infoXCap ccb 0??

*Mar 2 07:46:03: src address = **10.52.218.49** of SETUPIND_CHOSEN

*Mar 2 07:46:03: dest address = **10.52.218.47** of SETUPIND_CHOSEN??

*Mar 2 07:46:03: cch323_run_h225_sm: received event H225_EVENT_FAST_SETUP_IND while

at state H225_IDLE??

*Mar 2 07:46:03: cch323_run_h225_sm: Setup ccb
0x821FCE98 callID
0xFFFFFFFF

*Mar 2 07:46:03: cch323_h225_act_fastStartSetupInd:
codec match = 1

*Mar 2 07:46:03: cch323_rtp_set_non_rtp_call: Non-RTP call end

*Mar 2 07:46:03: H.225 SM: **changing from H225_IDLE state to H225_REQ_WAIT_FOR_ARQ**

state for callID FFFFFFFF??

!--- Now the example of the debug h225 asn1 !--- command from all four routers. *!--- The messages are sent from the originating GW.*

ECV-2610-16#**debug h225 asn1**

H.225 ASN1 Messages debugging is on

ECV-2610-16#

!--- The GW_2 initiates a call to 1711 phone located on GW_1. !--- Here is the messages that show the process on *GW_2:??* *Mar 2 14:28:08.824: **RAS OUTGOING** PDU ::=

!--- The GW_2 asks gk-zone2 to resolve the e164 number 1711 to IP !--- address. value RasMessage ::=

admissionRequest :

```
{
  requestSeqNum 3091
  callType pointToPoint : NULL
    callModel direct : NULL
  endpointIdentifier {"8217FB5000000001"}
  destinationInfo
```

```

{
e164 : "1711"
}
srcInfo
{
e164 : "1611",
h323-ID : {"gw_2"}
}
bandwidth 640
callReferenceValue 8
nonStandardData
{
nonStandardIdentifier h221NonStandard :
{
t35CountryCode 181
t35Extension 0
manufacturerCode 18
}
}
data '80000008200A1046585320312F312F31'H
}
conferenceID 'F748749F163011CC801CC5F8EEB46E69'H
activeMC FALSE
answerCall FALSE
canMapAlias TRUE
callIdentifier
{
guid 'F748749F163011CC801DC5F8EEB46E69'H
}
willSupplyUUIEs FALSE
}
??

*Mar 2 14:28:08.960: RAS INCOMING PDU ::=
!--- The gk-zone2 notifies GW_2 that the request is in
progress as it !--- is forwarded to the other gk-zone1
and is not processed locally. ?? value RasMessage ::=
requestInProgress :
{
!--- Note the sequence numbers in the request equal the
number in !--- the reply. requestSeqNum 3091
delay 9000
}

??

*Mar 2 14:28:09.169: RAS INCOMING PDU ::=
!--- The gk-zone2 grants permission to start call and
resolves the !--- e164 number 1711 to IP address of
GW_1. value RasMessage ::= admissionConfirm :
{
!--- The sequence numbers in the request equal the
number in the reply. requestSeqNum 3091
bandwidth 640
callModel direct : NULL
destCallSignalAddress ipAddress :
{
ip '0A34DA31'H
!--- The IP address 10.52.218.49 of GW_1. port 1720 }
irrFrequency 240 destinationInfo { e164 : "1711"
}
willRespondToIRR FALSE
uuiesRequested
{
setup FALSE
callProceeding FALSE
}

```

```
connect FALSE
alerting FALSE
    information FALSE
releaseComplete FALSE
facility FALSE
    progress FALSE
empty FALSE
}
}

*Mar 2 14:28:09.193: H225 NONSTD OUTGOING PDU ::=

value H323_UU_NonStdInfo ::=
{
    version 0
    progIndParam progIndIEinfo :
    {
        progIndIE '00000003'H
    }
}

*Mar 2 14:28:09.197: H225.0 OUTGOING PDU ::=
!--- The GW_2 now can place H323 (q931) call setup
message directly !--- to GW_1. value
H323_UserInformation ::= { h323-uu-pdu { h323-message-
body setup :
{
    protocolIdentifier { 0 0 8 2250 0 2 }
    sourceAddress
    {
        h323-ID : {"gw_2"}
    }
    sourceInfo
    {
        gateway
        {
            protocol
            {
                voice :
                {
                    supportedPrefixes
                    {??

                    {
prefix e164 : "1#"
                    }
                }
            }
        }
        mc FALSE
        undefinedNode FALSE
    }
    destinationAddress
    {
        e164 : "1711"
    }
        activeMC FALSE
    conferenceID 'F748749F163011CC801CC5F8EEB46E69'H
        conferenceGoal create : NULL
    callType pointToPoint : NULL
        sourceCallSignalAddress ipAddress :
```

```

{
  ip '0A34DA30'H
    port 11001
}
callIdentifier
{
  guid 'F748749F163011CC801DC5F8EEB46E69'H
}
fastStart
{
  '0000000D4001800A040001000A34DA3043F3'H,
  '400000060401004D40018011140001000A34DA30...'H
}
mediaWaitForConnect FALSE
canOverlapSend FALSE
}
h245Tunneling FALSE
nonStandardControl
{??

  {
    nonStandardIdentifier h221NonStandard :
    {
      t35CountryCode 181
t35Extension 0
manufacturerCode 18
}
  data 'C00100028006000400000003'H
}
}
}

*Mar 2 14:28:09.573: H225.0 INCOMING PDU ::=
!--- The GW_1 replies with an H323 (q931) callProceeding
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 'F748749F163011CC801DC5F8EEB46E69'H
  }
  fastStart
  {
    '0000000D40018011140001000A34DA314942000A...'H,
    '400000060401004D40018011140001000A34DA30...'H
  }
  }
  h245Tunneling FALSE
}
}

*Mar 2 14:28:09.766: H225.0 INCOMING PDU ::=
!--- The GW_1 sends an H323 (q931) call Progress
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 'F748749F163011CC801DC5F8EEB46E69'H
  }
}
h245Tunneling FALSE
nonStandardControl
{
??{
      nonStandardIdentifier h221NonStandard :
  {
    t35CountryCode 181
    t35Extension 0
    manufacturerCode 18
      }
    data '60011000011E041E028188'H
  }
}
}
}
}

*Mar 2 14:28:11.801: H225.0 INCOMING PDU ::=
!--- The GW_1 sends an H323 (q931) call CONNECT message.
The call is !--- now active. value H323_UserInformation
::= { h323-uu-pdu { h323-message-body connect :
  {
    protocolIdentifier { 0 0 8 2250 0 2 }
    destinationInfo
    {
      gateway
      {
        protocol
      }
      voice :
      {
        supportedPrefixes
      }
??{
          prefix e164 : "1#"
        }
      }
    }
  }
}
mc FALSE
undefinedNode FALSE
}
conferenceID 'F748749F163011CC801CC5F8EEB46E69'H
  callIdentifier
  {
    guid 'F748749F163011CC801DC5F8EEB46E69'H
  }
}

```

```
h245Tunneling FALSE
nonStandardControl
{??

    {
nonStandardIdentifier h221NonStandard :
{
    t35CountryCode 181
t35Extension 0
manufacturerCode 18
}
data 'C00100028006000400000002'H
}
    }
}
}
```

*Mar 2 14:28:11.909: **show call active voice**

Total call-legs: 2

??GENERIC:

SetupTime=13848499 ms

Index=1

PeerAddress=1611

PeerSubAddress=

PeerId=2

PeerIfIndex=11

LogicalIfIndex=8

ConnectTime=13849192

CallDuration=00:00:19

CallState=4

!--- This means the call is active. CallOrigin=2

ChargedUnits=0 InfoType=2 **TransmitPackets=442**

TransmitBytes=8840

ReceivePackets=1104

ReceiveBytes=22080

!--- This shows that there is two-way voice for this call leg. !--- 0 values a problem. TELE:

!--- The call is outgoing and started from the PSTN.

That is why !--- TELE: is first in the output.

ConnectionId=[0xF748749F 0x163011CC 0x801CC5F8

0xEEB46E69] IncomingConnectionId=[0xF748749F 0x163011CC

0x801CC5F8 0xEEB46E69] TxDuration=22100 ms

VoiceTxDuration=2209 ms FaxTxDuration=0 ms

CoderTypeRate=g729r8

NoiseLevel=-48

ACOMLevel=2

OutSignalLevel=-57

InSignalLevel=-53

InfoActivity=2

ERLLevel=16

SessionTarget=

ImgPages=0

GENERIC:

SetupTime=13848887 ms

Index=1

PeerAddress=1711

PeerSubAddress=

PeerId=1PeerIf

Index=13

LogicalIfIndex=0

ConnectTime=13849185

CallDuration=00:00:20

```
CallState=4
CallOrigin=1
ChargedUnits=0
InfoType=2
TransmitPackets=1038
TransmitBytes=20760
ReceivePackets=488
ReceiveBytes=9760
VOIP:
ConnectionId[0xF748749F 0x163011CC 0x801CC5F8
0xEEB46E69]
IncomingConnectionId[0xF748749F 0x163011CC 0x801CC5F8
0xEEB46E69]
RemoteIPAddress=10.52.218.49RemoteUDPPort=18754
!--- The signaling and RTP stream IP addresses.
RemoteSignallingIPAddress=10.52.218.49
RemoteSignallingPort=1720
RemoteMediaIPAddress=10.52.218.49
RemoteMediaPort=18754
RoundTripDelay=5 ms
SelectedQoS=best-effort
tx_DtmfRelay=inband-voice
FastConnect=TRUE

Separate H245 Connection=FALSE

H245 Tunneling=FALSE

SessionProtocol=cisco
SessionTarget=ras
OnTimeRvPlayout=6630
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

!--- The DSP statistics. VAD = enabled
CoderTypeRate=g729r8
CodecBytes=20Total call-legs: 2

ECV-2610-16#
ECV-2610-16#

u all
All possible debugging has been turned off
!--- The following messages shows the call disconnect !-
-- process at the GW_2. ECV-2610-16#deb h225 asn1 H.225
ASN1 Messages debugging is on: *Mar 2 14:29:52.017:
H225.0 INCOMING PDU ::=
!--- The GW_1 sends H323 (q931) Release complete
message. value H323_UserInformation ::= { h323-uu-pdu {
h323-message-body releaseComplete :
{
protocolIdentifier { 0 0 8 2250 0 2 }
callIdentifier
{
guid 'F748749F163011CC801DC5F8EEB46E69'H
}
}
```

```

}
h245Tunneling FALSE
}
}

*Mar 2 14:29:52.025: H225.0 OUTGOING PDU ::=
!--- The GW_2 replies with the H323 (q931)
releaseComplete !--- message. value H323_UserInformation
::= { h323-uu-pdu { h323-message-body releaseComplete :
    {
    protocolIdentifier { 0 0 8 2250 0 2 }
    callIdentifier
    {
    guid 'F748749F163011CC801DC5F8EEB46E69'H
    }
    }
    h245Tunneling FALSE
    }
    }

*Mar 2 14:29:52.041: RAS OUTGOING PDU ::=
!--- The GW_2 notifies GK-2 that the call is complete.
value RasMessage ::= disengageRequest :
{
    requestSeqNum 3095
    endpointIdentifier {"8217FB5000000001"}
    conferenceID 'F748749F163011CC801CC5F8EEB46E69'H
    callReferenceValue 8
    disengageReason normalDrop : NULL
    callIdentifier
    {
        guid 'F748749F163011CC801DC5F8EEB46E69'H
    }
    answeredCall FALSE
}

*Mar 2 14:29:52.090: RAS INCOMING PDU ::=
!--- The GK-2 confirms the message. value RasMessage ::=
disengageConfirm :
{
    requestSeqNum 3095
}
u all
All possible debugging has been turned off

-----
----
!--- The debug output from the GK-2. ECV-2610-14#debug
h225 asn1
H.225 ASN1 Messages debugging is on
ECV-2610-14#
Mar 2 14:28:20.952:
Mar 2 14:28:20.952: RAS INCOMING PDU ::=
!--- The GW_2 asks permission to place the call. !---
Now it is incoming RAS PDU as it is on the GK-2, but the
!--- same sequence number. value RasMessage ::=
admissionRequest :
{
    requestSeqNum 3091
    callType pointToPoint : NULL
    callModel direct : NULL
    endpointIdentifier {"8217FB5000000001"}
}

```



```

    destinationInfo
    {
    e164 : "1711"
    }
    srcInfo
    {
    e164 : "1611",
    h323-ID: {"gw_2"}
    }
    bandwidth 640
    callReferenceValue 8
    nonStandardData
    {
    nonStandardIdentifier h221NonStandard :
    {
    t35CountryCode 181
    t35Extension 0
    manufacturerCode 18
    }
    data '80000008200A1046585320312F312F31'H
    }
    conferenceID 'F748749F163011CC801CC5F8EEB46E69'H
    activeMC FALSE
    answerCall FALSE
    canMapAlias TRUE
    callIdentifier
    {
    guid 'F748749F163011CC801DC5F8EEB46E69'H
    }
    willSupplyUUIEs FALSE
    }??

Mar 2 14:28:20.992: RAS OUTGOING PDU ::=
!--- The GK-2 asks GK-1 to resolve the Number for the
remote !--- zone. value RasMessage ::= locationRequest :
{
requestSeqNum 1026
destinationInfo
{
e164 : "1711"
}
nonStandardData
{
nonStandardIdentifier h221NonStandard :
{
t35CountryCode 181
t35Extension 0
manufacturerCode 18
}
data '8284901100F748749F163011CC801DC5F8EEB46E...'H
}
replyAddress ipAddress :
{
ip '0A34DA2E'H
port 1719
}
sourceInfo
{
h323-ID : {"gk-zone2.test.com"}
}
canMapAlias TRUE
}

```

```

Mar 2 14:28:21.024: RAS OUTGOING PDU ::=
  !--- The GK-2 notifies GW_2 that the call is
processing. value RasMessage ::= requestInProgress :
{
  requestSeqNum 3091
    delay 9000
}

Mar 2 14:28:21.157:
Mar 2 14:28:21.157: RAS INCOMING PDU ::=
  !--- The GK-1 replies to GK-2 with the permission. value
RasMessage ::= locationConfirm :
{
  requestSeqNum 1026
  callSignalAddress ipAddress :
  {
    ip'0A34DA31'H
    port 1720
  }
  rasAddress ipAddress :
  {
    ip '0A34DA31'H
    port 55679
  }
  nonStandardData
  {
    nonStandardIdentifier h221NonStandard :
    {
      t35CountryCode 181
    }
    t35Extension 0
    manufacturerCode 18
  }
  data '0001400300670077005F0031200067006B002D00...'H
  }
  destinationInfo
  {
    e164 : "1711"
  }
  destinationType
  {
    gateway
    {
      protocol
      {
        voice :
        {
          supportedPrefixes
          {
            }
          }
        }
      }
    }
  }
  mc FALSE
  undefinedNode FALSE
  }
}

Mar 2 14:28:21.209: RAS OUTGOING PDU::=
  !--- The GK-2 replies to GW_2 with the permission to
place !--- the call. value RasMessage ::=
admissionConfirm :
{

```

```
requestSeqNum 3091
  bandwidth 640
callModel direct : NULL
destCallSignalAddress ipAddress :
{
  ip '0A34DA31'H
  port 1720
}
irrFrequency 240
destinationInfo
{
  e164 : "1711"
}
willRespondToIRR FALSE
uuiesRequested
{
  setup FALSE
  callProceeding FALSE
  connect FALSE
  alerting FALSE
  information FALSE
  releaseComplete FALSE
  facility FALSE
  progress FALSE
  empty FALSE
}
}
```

ECV-2610-14#u all

All possible debugging has been turned off

ECV-2610-14#debug h225 asn1

H.225 ASN1 Messages debugging is on

Mar 2 14:30:04.145: RAS INCOMING PDU ::=

*!--- The GK-2 gets notification from GW_2 that the call
!--- has ended.* value RasMessage ::= **disengageRequest** :

```
{
  requestSeqNum 3095
  endpointIdentifier {"8217FB5000000001"}
  conferenceID 'F748749F163011CC801CC5F8EEB46E69'H
  callReferenceValue 8
  disengageReason normalDrop : NULL
  callIdentifier
  {
    guid 'F748749F163011CC801DC5F8EEB46E69'H
  }
  answeredCall FALSE
}
```

Mar 2 14:30:04.157: RAS OUTGOING PDU ::=

value RasMessage ::= **disengageConfirm** :

```
{
  requestSeqNum 3095
}
```

ECV-2610-14#u all

All possible debugging has been turned off

ECV-2610-14#

```
-
!--- The debug output from the GK-2. ECV-2610-15#ECV-
2610-15#debug h225 asnl
H.225 ASN1 Messages debugging is on
*Mar 2 14:28:14.690:
*Mar 2 14:28:14.694:
RAS INCOMING PDU ::=
!--- The request from the GK-2. value RasMessage ::=
locationRequest :
{
  requestSeqNum 1026
  destinationInfo
  {
    e164 : "1711"
  }
  nonStandardData
  {
    nonStandardIdentifier h221NonStandard:
    {
      t35CountryCode 181
      t35Extension 0
      manufacturerCode 18
    }
    data '8284901100F748749F163011CC801DC5F8EEB46E...'H
  }
  replyAddress ipAddress :
  {
    ip '0A34DA2E'H
    port 1719
  }
  sourceInfo
  {
    h323-ID : {"gk-zone2.test.com"}
  }
  canMapAlias TRUE
}

*Mar 2 14:28:14.754: RAS OUTGOING PDU ::=
!--- The reply from the GK-1 to GK-2. value
RasMessage ::= locationConfirm :
{
  requestSeqNum 1026
  callSignalAddress ipAddress :
  {
    ip '0A34DA31'H
    port 1720
  }
  rasAddress ipAddress :
  {
    ip '0A34DA31'H
    port 55679
  }
  nonStandardData
  {
    nonStandardIdentifier h221NonStandard :
    {
      t35CountryCode 181
      t35Extension 0
      manufacturerCode 18
    }
    data '0001400300670077005F0031200067006B002D00...'H
  }
  destinationInfo
```

```
{
e164 : "1711"
}
destinationType
{
gateway
{
protocol
{
voice :
{
supportedPrefixes
{
}
}
}
}
}
mc FALSE
undefinedNode FALSE
}
}
```

```
*Mar 2 14:28:15.159: RAS INCOMING PDU ::=
!--- The GW_1 asks GK-1 for permission to accept the
call. value RasMessage ::= admissionRequest :
```

```
{
requestSeqNum 101
callType pointToPoint : NULL
callModel direct : NULL
endpointIdentifier {"8261828000000003"}
destinationInfo
{
e164 : "1711"
}
srcInfo
{
e164 : "1611",
h323-ID: {"gw_2"}
}
srcCallSignalAddress ipAddress:
{
ip '0A34DA30'H
port 1100
}
bandwidth 640
callReferenceValue 7
nonStandardData
{
nonStandardIdentifier h221NonStandard :
{
t35CountryCode 181
t35Extension 0
manufacturerCode 18
}
}
data '80000008200A1046585320312F312F31'H
}
conferenceID 'F748749F163011CC801CC5F8EEB46E69'H
activeMC FALSE
answerCall TRUE
canMapAlias TRUE
callIdentifier
{
guid 'F748749F163011CC801DC5F8EEB46E69'H
```

```

}
willSupplyUUIEs FALSE
}

*Mar 2 14:28:15.191: RAS OUTGOING PDU ::=
!--- The permission is granted. value RasMessage ::=
admissionConfirm :
{
  requestSeqNum 101
  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
  }
}

ECV-2610-15#
ECV-2610-15#show gatek call
Total number of active calls = 1.
GATEKEEPER CALL INFO
=====
LocalCallID Age(secs) BW
7-63391 33 64(Kbps)
Endpt(s): Alias E.164Addr CallSignalAddr Port
RASSignalAddr Port
src EP: gw_2 1611 10.52.218.48 1720 10.52.218.48 59067
dst EP: gw_1 1711 10.52.218.49 1720
10.52.218.49 58841

ECV-2610-15#ECV-2610-15#u all
All possible debugging has been turned off
ECV-2610-15#debug h225 asn1
H.225 ASN1 Messages debugging is on
*Mar 2 14:29:57.767: RAS INCOMING PDU ::=
!--- The GK-1 gets notification from GW_1 that the call
has ended. value RasMessage ::= disengageRequest :
{
  requestSeqNum 105
  endpointIdentifier {"8261828000000003"}
  conferenceID 'F748749F163011CC801CC5F8EEB46E69'H
  callReferenceValue 7
  disengageReason normalDrop : NULL
  callIdentifier
  {
    guid 'F748749F163011CC801DC5F8EEB46E69'H
  }
}
answeredCall TRUE

```

```

}

*Mar 2 14:29:57.779: RAS OUTGOING PDU ::=
!--- The GK-1 confirms the message. value RasMessage ::=
disengageConfirm :
{
  requestSeqNum 105
}

ECV-2610-15#u all
All possible debugging has been turned off
!--- The debugs must always be turned off when the
collection !--- is completed.

-----
!--- The debugs at the terminating gateway GW_1. ECV-
2610-17# ECV-2610-17#debug h225 asn1
H.225 ASN1 Messages debugging is on

*Mar 1 11:02:27:
*Mar 1 11:02:27: H225.0 INCOMING PDU ::=
!--- The first message is the H225 call setup from GW_2.
value H323_UserInformation ::= { h323-uu-pdu { h323-
message-body setup :
{
  protocolIdentifier { 0 0 8 2250 0 2 }
  sourceAddress
  {
    h323-ID : {"gw_2"}
  }
  sourceInfo
  {
    gateway
  }
  protocol
  {
    voice :
  {
    supportedPrefixes
    {??
      {
        prefix e164 : "1#"
      }
    }
  }
  mc FALSE
  undefinedNode FALSE
}
  destinationAddress
  {
    e164 : "1711"
  }
  activeMC FALSE
  conferenceID
'F748749F163011CC801CC5F8EEB46E69'H
  conferenceGoal create : NULL
  callType pointToPoint : NULL
  sourceCallSignalAddress ipAddress :
  {
    ip '0A34DA30'H

```

```

port 11001
}
callIdentifier
{
guid 'F748749F163011CC801DC5F8EEB46E69'H
}
fastStart
{
'0000000D4001800A040001000A34DA3043F3'H,
'400000060401004D40018011140001000A34DA30...'H
}
mediaWaitForConnect FALSE
canOverlapSend FALSE
}
h245Tunneling FALSE
nonStandardControl
{
??
{
nonStandardIdentifier h221NonStandard :
{
t35CountryCode 181
t35Extension 0
manufacturerCode 18
}
data 'C00100028006000400000003'H
}
}
}

*Mar 1 11:02:27: RAS OUTGOING PDU ::=
!--- The GW_1 asks GK-1 for permission to accept the
call. value RasMessage ::= admissionRequest :
{
requestSeqNum 101
callType pointToPoint : NULL
callModel direct : NULL
endpointIdentifier {"8261828000000003"}
destinationInfo
{
e164: "1711"
}
srcInfo
{
e164 : "1611",
h323-ID : {"gw_2"}
}
srcCallSignalAddress ipAddress:
{
ip '0A34DA30'H
port 11001
}
bandWidth 640
callReferenceValue 7
nonStandardData
{
nonStandardIdentifier h221NonStandard :
{
t35CountryCode 181
t35Extension 0
manufacturerCode 18
}
}
}

```



```

data '80000008200A1046585320312F312F31'H
}
conferenceID 'F748749F163011CC801CC5F8EEB46E69'H
activeMC FALSE
answerCall TRUE
canMapAlias TRUE
callIdentifier
{
    guid 'F748749F163011CC801DC5F8EEB46E69'H
}
willSupplyUUIEs FALSE
}

*Mar 1 11:02:27: *Mar 1 11:02:27: RAS INCOMING PDU ::=
!--- The permission is granted. value RasMessage ::=
admissionConfirm:
{
    requestSeqNum 101
    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 11:02:27: H225.0 OUTGOING PDU ::=
!--- The GW_1 replies to the GW-2 with the
callProceeding 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 'F748749F163011CC801DC5F8EEB46E69'H
    }
    fastStart
    {
        '0000000D40018011140001000A34DA314942000A...'H,
'400000060401004D40018011140001000A34DA30...'H
    }
}
}

```

```

    h245Tunneling FALSE
  }
}

*Mar 1 11:02:27: H225.0 OUTGOING PDU ::=
!--- The call Progress follows. value
H323_UserInformation ::= { h323-uu-pdu { h323-message-
body progress :
  {
    protocolIdentifier { 0 0 8 2250 0 2 }
    destinationInfo
      {
        mc FALSE
        undefinedNode FALSE
      }
    callIdentifier
      {
        guid 'F748749F163011CC801DC5F8EEB46E69'H
      }
      }
    h245Tunneling FALSE
    nonStandardControl
      {
        ??
          {
            nonStandardIdentifier h221NonStandard :
              {
                t35CountryCode 181
                t35Extension 0
                manufacturerCode 18
              }
              data '60011000011E041E028188'H
            }
          }
        }
      }
    ??
*Mar 1 11:02:29: H225.0 OUTGOING PDU ::=
!--- The GW_1 accepts the call. value
H323_UserInformation ::= { h323-uu-pdu { h323-message-
body connect :
  {
    protocolIdentifier { 0 0 8 2250 0 2 }
    destinationInfo
      {
        gateway
          {
            protocol
              {
                voice :
                  {
                    supportedPrefixes
                      {??
                        {
                          prefix e164 : "1#"
                        }
                      }
                    }
                  }
                }
              }
            }
          }
        mc FALSE
        undefinedNode FALSE
      }
}

```

```
conferenceID 'F748749F163011CC801CC5F8EEB46E69'H
callIdentifier
{
    guid 'F748749F163011CC801DC5F8EEB46E69'H
}
}
h245Tunneling FALSE
nonStandardControl
{
??{
    nonStandardIdentifier h221NonStandard :
    {
t35CountryCode 181
t35Extension 0
manufacturerCode 18
    }
data 'C00100028006000400000002'H
}
}
}

ECV-2610-17#u all
All possible debugging has been turned off
ECV-2610-17#
ECV-2610-17#debug h225 asn1
H.225 ASN1 Messages debugging is on
ECV-2610-17#
*Mar 1 11:04:10: H225.0 OUTGOING PDU ::=
!--- The GW_1 drops the call. value H323_UserInformation
::= { h323-uu-pdu { h323-message-body releaseComplete :
    {
protocolIdentifier { 0 0 8 2250 0 2 }
callIdentifier
    {
guid 'F748749F163011CC801DC5F8EEB46E69'H
    }
}
h245Tunneling FALSE
}
}

??*Mar 1 11:04:10: RAS OUTGOING PDU ::=
!--- The GW_1 notifies GK-1 that the call has ended.
value RasMessage ::= disengageRequest :
{
    requestSeqNum 105
endpointIdentifier {"8261828000000003"}
    conferenceID 'F748749F163011CC801CC5F8EEB46E69'H
callReferenceValue 7
disengageReason normalDrop : NULL
callIdentifier
{
    guid 'F748749F163011CC801DC5F8EEB46E69'H
}
answeredCall TRUE
}

*Mar 1 11:04:10: H225.0 INCOMING PDU ::=
!--- The GW_2 drops the call from its side. value
H323_UserInformation ::= { h323-uu-pdu { h323-message-
body releaseComplete :
```

```
protocolIdentifier { 0 0 8 2250 0 2 }
callIdentifier
  {
guid 'F748749F163011CC801DC5F8EEB46E69'H
  }
}
h245Tunneling FALSE
}
}

*Mar 1 11:04:10: RAS INCOMING PDU ::=
!--- The GK-1 confirms the message. value RasMessage ::=
disengageConfirm :
{
  requestSeqNum 105
}

u all
All possible debugging has been turned off
!--- The debugs must always be turned off when the
collection !--- is completed.
```

相关信息

- [了解 H.323 网守](#)
- [网守注册问题的故障排除](#)
- [了解 Cisco IOS H.323 网守呼叫路由](#)
- [Cisco 高性能网守](#)
- [配置 H.323 网关](#)
- [配置 H.323 网守](#)
- [了解 Cisco 网守带宽管理与故障排除](#)
- [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](#)
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