

Flusso di chiamata da Gateway in entrata PSTN a CVP (coda di chiamata e raccolta) IOS

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Introduzione

Cisco Customer Voice Portal (CVP) fornisce applicazioni IVR (Voice Response) intelligenti e interattive a cui è possibile accedere telefonicamente. Esistono tre tipi di distribuzione CVP:

- Servizio autonomo
- Controllo delle chiamate CVP
- Coda chiamate e raccolta

Questo documento descrive il flusso di chiamate dalla prospettiva di IOS® Ingress Gateway basato su H.323 in una coda di chiamate e nell'implementazione di Collect.

Nella distribuzione Call Queue and Collect, il CVP interagisce con Intelligent Contact Management (ICM) per prendere decisioni relative al routing delle chiamate. ICM richiede al CVP di fornire il trattamento VRU (Voice Response Unit) alla chiamata in arrivo per le richieste di menu di riproduzione e la raccolta di cifre per determinare il gruppo di abilità da selezionare. Una volta identificato il gruppo di abilità e disponibile un agente del gruppo di abilità, ICM richiede al CVP di connettere la chiamata in arrivo all'Agent IP Phone tramite Cisco CallManager. Se l'agente non è disponibile, ICM richiede a CVP di fornire il trattamento della coda di chiamate (ad esempio riprodurre un prompt di musica in attesa). CVP fornisce il trattamento della VRU o della coda di chiamate utilizzando un gateway VXML.

Prerequisiti

Requisiti

Nessun requisito specifico previsto per questo documento

Componenti usati

Le informazioni fornite in questo documento si basano sulle seguenti versioni software e hardware:

- IOS PSTN Ingress Gateway: Cisco 2821, IOS 12.4(15)T1
- Gatekeeper IOS: Cisco 2651XM, IOS 12.4(7f)
- IOS VXML Gateway: Cisco AS5400XM, IOS 12.4(15)T1
- Cisco Voice Portal: CVP 4.0
- Cisco CallManager 5.1.2
- Server ASR/TTS: Nuance ASR v8.5 e TTS v4.0.6

Le informazioni discusse in questo documento fanno riferimento a dispositivi usati in uno specifico ambiente di emulazione. Su tutti i dispositivi menzionati nel documento la configurazione è stata ripristinata ai valori predefiniti. Se la rete è operativa, valutare attentamente eventuali conseguenze derivanti dall'uso dei comandi.

Convenzioni

Per ulteriori informazioni sulle convenzioni usate, consultare il documento [Cisco sulle convenzioni nei suggerimenti tecnici](#).

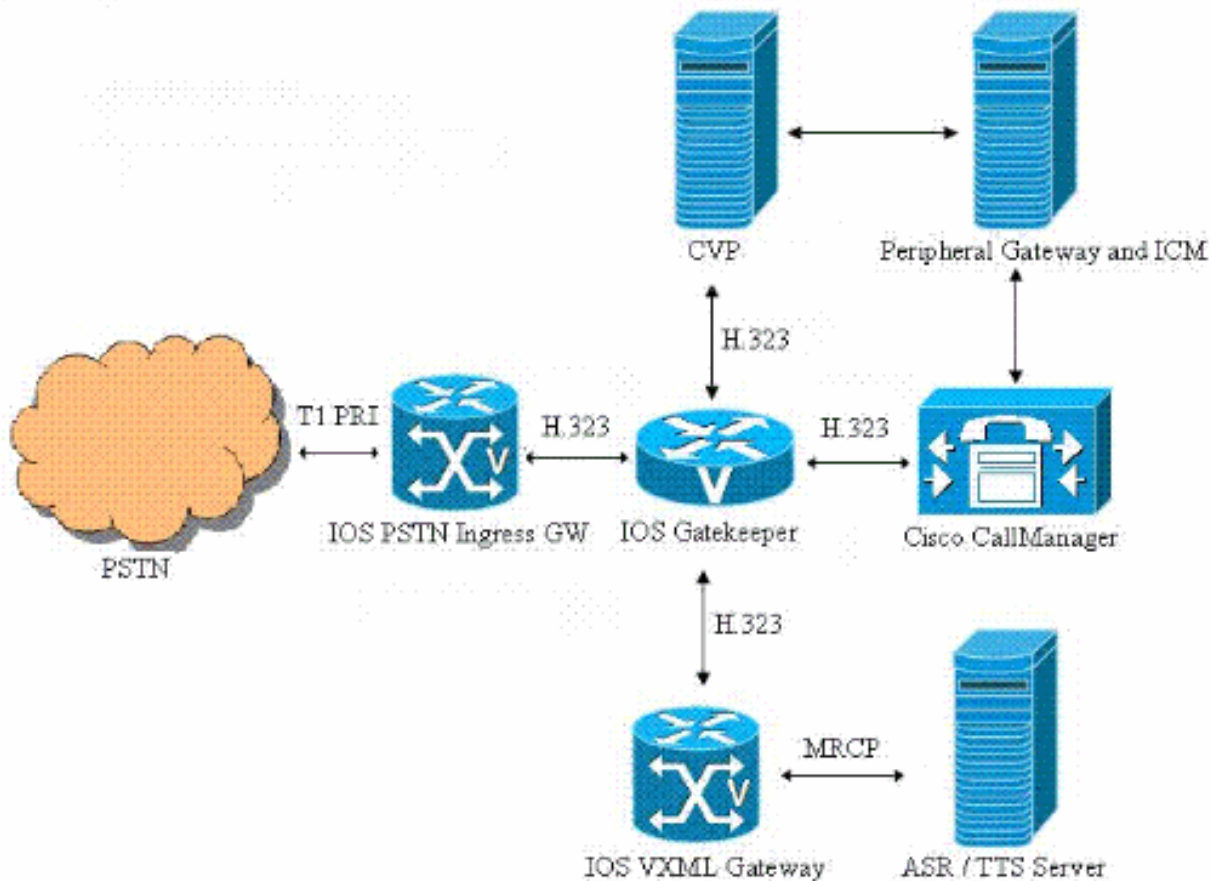
Configurazione

In questa sezione vengono presentate le informazioni necessarie per configurare le funzionalità descritte più avanti nel documento.

Nota: per ulteriori informazioni sui comandi menzionati in questo documento, usare lo [strumento di ricerca](#) dei comandi (solo utenti [registrati](#)).

Esempio di rete

Nel documento viene usata questa impostazione di rete:



Configurazioni

Nel documento vengono usate queste configurazioni:

- [Configurazione gateway in ingresso](#)
- [Configurazione Gatekeeper](#)
- [Configurazione di VXML Gateway](#)

Configurazione gateway in ingresso

```
!--- Configure the IOS PSTN Ingress GW to register with
the IOS Gatekeeper. interface GigabitEthernet0/1 ip
address 14.50.201.11 255.255.255.0 h323-gateway voip
interface h323-gateway voip id IPCC-GW ipaddr
14.50.201.14 1719 h323-gateway voip h323-id PSTN-GW
h323-gateway voip bind srcaddr 14.50.201.11 !---
Configure the T1 PRI. controller T1 1/0/0 framing esf
linecode b8zs pri-group timeslots 1-24 !--- Configure
the ISDN switch type and incoming-voice under the D-
channel interface. interface Serial1/0/0:23 no ip
address encapsulation hdlc isdn switch-type primary-ni
isdn incoming-voice voice no cdp enable !--- Configure a
POTS dial-peer that will be used as inbound dial-peer
for calls !--- coming in across the T1 PRI line. dial-
peer voice 2 pots description PSTN PRI Circuit incoming
```

```
called-number . direct-inward-dial port 1/0/0:23 !---  
Configure an outbound voip dial-peer to route calls to  
the CVP. !--- Gateway sends ARQ to Gatekeeper for call  
routing decision. dial-peer voice 1 voip description "To  
IPCC" destination-pattern 800..... session target ras  
tech-prefix 2# dtmf-relay rtp-nte codec g711ulaw no vad
```

Configurazione Gatekeeper

```
!--- Configure the local zones and zone prefixes. In  
this example, !--- VXML GW registers with Gatekeeper  
with Tech-Prefix 1# !--- CVP registers with Gatekeeper  
with Tech-Prefix 2# !--- CCM registers with CCM with  
Tech-Prefix 3# !--- CVP handles calls with called number  
in the 800555... range !--- CCM handles calls with called  
numbers in the 75... range (agent dn range) !--- VXML  
Gateway handles calls with called numbers starting with  
8001112222 (network vru label) gatekeeper zone local  
IPCC-GW cisco.com 14.50.201.14 zone local IPCC-VXML  
cisco.com zone local IPCC-CCM cisco.com zone local IPCC-  
CVP cisco.com zone prefix IPCC-CCM 75... zone prefix  
IPCC-CVP 800555.... zone prefix IPCC-VXML 8001112222*  
gw-type-prefix 1#* default-technology no shutdown!
```

Configurazione di VXML Gateway

```
!--- Define Hostname to IP Address mapping for ASR and  
TTS servers. ip host asrtts-en-us 14.50.201.16 !---  
Define the amount of maximum memory to used for  
downloaded prompts. ivr prompt memory 15000 !--- Define  
the RTSP URI of ASR and TTS Server. ivr asr-server  
rtsp://asrtts-en-us/recognizer ivr tts-server  
rtsp://asrtts-en-us/synthesizer !--- Configure an  
application service for CVPErrror.tcl. application  
service cvperror flash:cvperror.tcl paramspace english  
language en paramspace english index 0 paramspace  
english location flash paramspace english prefix en !---  
Configure an application service for CVP bootstrap.vxml  
and bootstrap.tcl. service new-call flash:bootstrap.vxml  
paramspace english language en paramspace english index  
0 paramspace english location flash paramspace english  
prefix en ! service bootstrap flash:bootstrap.tcl  
paramspace english language en paramspace english index  
0 paramspace english location flash paramspace english  
prefix en !--- Configure an application service for CVP  
handoff.tcl. service handoff flash:handoff.tcl  
paramspace english language en paramspace english index  
0 paramspace english location flash paramspace english  
prefix en !--- Specify that the Gateway's RTP stream to  
the ASR / TTS to go around the !--- Content Service  
Switch instead of through the CSS. mrcp client rtpsetup  
enable !--- Specify the maximum memory size for the HTTP  
Client Cache. http client cache memory pool 15000 !---  
Specify the maximum number of file that can be stored in  
the HTTP Client Cache. http client cache memory file 500  
!--- Disable Persistent HTTP Connections. no http client  
connection persistent !--- Configure the VXML GW to  
register with the IOS Gatekeeper. interface  
GigabitEthernet0/0 ip address 14.50.201.15 255.255.255.0  
h323-gateway voip interface h323-gateway voip id IPCC-  
VXML ipaddr 14.50.201.14 1719 h323-gateway voip h323-id
```

```

VXML-GW h323-gateway voip tech-prefix 1# h323-gateway
voip bind srcaddr 14.50.201.15 !--- Configure an inbound
voip dial-peer to block calls with called number !---
starting with 987654. voice translation-rule 1 rule 1
/987654/ // ! ! voice translation-profile block
translate called 1 dial-peer voice 987654 voip
description Dial-peer needed for PM Micro-App
translation-profile incoming block incoming called-
number 987654 !--- Configure a VoIP dial-peer that will
be used as inbound dial-peer for calls coming !--- in
from CVP. The "bootstrap" service is applied under this
dial-peer. !--- The "8001112222" in the destination-
pattern is the VRU label that is configured in ICM.
dial-peer voice 800 voip description ICM VRU Label
translation-profile incoming block service bootstrap
incoming called-number 8001112222T dtmf-relay rtp-nte
h245-signal h245-alphanumeric codec g711ulaw no vad

```

Esempio di flusso di chiamata

In questa sezione viene descritto il flusso di chiamate risultante da questo esempio di configurazione:

1. Una chiamata ISDN arriva al gateway PSTN/VXML tramite T1 PRI 1/0/0.
2. Il gateway IOS corrisponde al dial-peer 2 POTS come dial-peer in ingresso per questa chiamata.
3. Il gateway IOS corrisponde al dial-peer VoIP 1 come dial-peer in uscita per questa chiamata.
4. IOS Gateway antepone il prefisso tecnico "2#" al numero chiamato e invia un messaggio ARQ a Gatekeeper.
5. Gatekeeper instrada la chiamata a CVP.
6. Il CVP risponde alla chiamata e la connessione multimediale RTP viene stabilita tra IOS Ingress Gateway e CVP.
7. Il CVP informa ICM della nuova chiamata.
8. ICM esegue lo script associato al numero chiamato della chiamata.
9. ICM richiede al CVP di fornire un trattamento VRU per riprodurre un prompt Menu (Main_Welcome_Menu.wav) e di raccogliere cifre per identificare il gruppo di abilità.1 per TAC2 per SalesL'ICM invia anche l'etichetta ICM (8001112222) della VRU di rete al CVP.
10. Il CVP invia una richiesta ARQ (con destinazione = etichetta Network VRU) al Gatekeeper.
11. Gatekeeper fornisce l'indirizzo IP del gateway VXML nella risposta ACF.
12. CVP invia un'installazione H225 a VXML Gateway per stabilire una sessione VXML a CVP. Per informazioni sulle interazioni tra VXML Gateway e CVP e tra VXML Gateway e server ASR/TTS, fare riferimento agli URL seguenti:[MRCPv1MRCPv2](#)
13. CVP disconnette la sua connessione multimediale RTP esistente al gateway in ingresso inviando H245 Empty TCS.
14. Il protocollo CVP stabilisce una connessione multimediale RTP tra il gateway in ingresso e il gateway VXML.
15. Il chiamante PSTN immette la cifra "1" per selezionare il gruppo di abilità "TAC". Il gateway in ingresso invia il DTMF tramite RTP NTE a VXML Gateway (16) VXML Gateway segnala le cifre a CVP tramite VXML, che a sua volta fa riferimento a ICM.
16. VXML Gateway comunica le cifre a CVP tramite VXML, che quindi segnala a ICM.
17. ICM trova quindi un agente disponibile dal gruppo di abilità selezionato e richiede al CVP di instradare la chiamata all'agente inviando l'etichetta ICM (3#75001) dell'agente.

18. CVP disconnette la connessione multimediale RTP esistente tra il gateway in ingresso e il gateway VXML.
19. Il CVP invia una richiesta ARQ (con destinazione = etichetta dell'agente) al Gatekeeper.
20. Gatekeeper fornisce l'indirizzo IP di Cisco CallManager nella risposta ACF.
21. CVP invia una configurazione H225 a Cisco CallManager, che stabilisce una chiamata all'Agent IP Phone.
22. CVP stabilisce una connessione multimediale RTP tra il gateway in ingresso e il telefono dell'agente.
23. Il chiamante PSTN interrompe la chiamata dopo aver terminato la conversazione con l'agente.
24. Il gateway in ingresso disconnette la chiamata al CVP e informa il Gatekeeper della terminazione della chiamata.
25. CVP disconnette quindi la chiamata a CCM.

Verifica

Per verificare che la configurazione funzioni correttamente sul Gatekeeper IOS, consultare questa sezione.

Lo [strumento Output Interpreter](#) (solo utenti [registrati](#)) (OIT) supporta alcuni comandi **show**. Usare l'OIT per visualizzare un'analisi dell'output del comando **show**.

- **mostra endpoint gatekeeper**

```
GATEKEEPER ENDPOINT REGISTRATION
```

```

=====
CallSignalAddr  Port  RASSignalAddr  Port  Zone Name          Type  Flags
-----
14.50.201.11    1720  14.50.201.11   53981 IPCC-GW            VOIP-GW

  ENDPOINT-ID: 8527186C00000002  VERSION: 4  AGE: 32 secs  SupportsAnnexE: FALSE

  g_supp_protos: 0x00000050

  H323-ID: PSTN-GW

  Voice Capacity Max.=  Avail.=  Current.= 0

14.50.201.15    1720  14.50.201.15   62367 IPCC-VXML          VOIP-GW

  ENDPOINT-ID: 84DB194800000003  VERSION: 4  AGE: 27 secs  SupportsAnnexE: FALSE

  g_supp_protos: 0x00000050

  H323-ID: VXML-GW

  Voice Capacity Max.=  Avail.=  Current.= 0

172.18.110.75   1720  172.18.110.75  1719  IPCC-CVP           VOIP-GW

  ENDPOINT-ID: 84F5E78C00000001  VERSION: 5  AGE: 3 secs   SupportsAnnexE: FALSE

  g_supp_protos: 0x00000040

```

H323-ID: CVP

Voice Capacity Max.= Avail.= Current.= 0

172.18.110.84 43843 172.18.110.84 49600 IPCC-CCM VOIP-GW

ENDPOINT-ID: 852A9F2C00000004 VERSION: 5 AGE: 27 secs SupportsAnnexE: FALSE

g_supp_protos: 0x00000050

H323-ID: CCM-GK-Trunk_1

Voice Capacity Max.= Avail.= Current.= 0

Total number of active registrations = 4

- **show gatekeeper gw-type-prefix**

GATEWAY TYPE PREFIX TABLE

=====

Prefix: 1#* (Default gateway-technology)

Zone IPCC-GW master gateway list:

14.50.201.11:1720 PSTN-GW

Zone IPCC-VXML master gateway list:

14.50.201.15:1720 VXML-GW

Prefix: 2#*

Zone IPCC-CVP master gateway list:

172.18.110.75:1720 CVP

Prefix: 3#*

Zone IPCC-CCM master gateway list:

172.18.110.84:43843 CCM-GK-Trunk_1

Per verificare che la configurazione funzioni correttamente sul gateway in ingresso PSTN di IOS, consultare questa sezione.

- **show call active voice brief**

Call is connected to VXML Gateway

11E6 : 228 2061411860ms.1 +160 pid:2 Answer 9999 active

dur 00:00:44 tx:1942/326256 rx:2221/354112

Tele 1/0/0:23 (228) [1/0/0.1] tx:44300/44300/0ms g711ulaw noise:-79 acom:7
i/0:-44/-18 dBm

11E6 : 229 2061411870ms.1 +130 pid:1 Originate 2#8005555555 active
dur 00:00:44 tx:2215/1169571516 rx:1942/310720
IP 14.50.201.15:21134 SRTP: off rtt:0ms pl:35210/40ms lost:0/0/0 delay:55/55/65ms
g711ulaw TextRelay: off
media inactive detected:n media contrl rcvd:n/a timestamp:n/a
long duration call detected:n long duration call duration:n/a timestamp:n/a

Telephony call-legs: 1
SIP call-legs: 0
H323 call-legs: 1
Call agent controlled call-legs: 0
SCCP call-legs: 0
Multicast call-legs: 0
Media call-legs: 0
Total call-legs: 2

Call is connected to Agent IP Phone

11E6 : 228 2061411860ms.1 +160 pid:2 Answer 9999 active
dur 00:01:06 tx:2848/478464 rx:3343/533632
Tele 1/0/0:23 (228) [1/0/0.1] tx:66730/66730/0ms g711ulaw noise:-54 acom:7
i/0:-44/-44 dBm

11E6 : 229 2061411870ms.1 +130 pid:1 Originate 2#8005555555 active
dur 00:01:06 tx:3336/1169571516 rx:2848/455680
IP 14.50.202.26:17156 SRTP: off rtt:1ms pl:10290/0ms lost:0/0/0 delay:55/55/65ms
g711ulaw TextRelay: off
media inactive detected:n media contrl rcvd:n/a timestamp:n/a
long duration call detected:n long duration call duration:n/a timestamp:n/a

Telephony call-legs: 1
SIP call-legs: 0
H323 call-legs: 1

Call agent controlled call-legs: 0

SCCP call-legs: 0

Multicast call-legs: 0

Media call-legs: 0

Total call-legs: 2

Risoluzione dei problemi

Le informazioni contenute in questa sezione permettono di risolvere i problemi relativi alla configurazione.

Comandi per la risoluzione dei problemi

Configurare il gateway IOS in modo che registri i debug nel relativo buffer di registrazione e disabilitare la "console di registrazione".

Di seguito sono riportati i comandi utilizzati per configurare il gateway in modo da archiviare i debug nel buffer di registrazione del gateway:

- **timestamp servizio debug datetime msec**
- **sequenza di servizio**
- **nessuna console di registrazione**
- **registrazione con buffer 500000 debug**
- **cancella registro**

Di seguito sono riportati i comandi di **debug** utilizzati per risolvere i problemi relativi alla configurazione:

Nota: consultare le [informazioni importanti sui comandi di debug](#) prima di usare i comandi di **debug**.

- **debug isdn q931**
- **debug voip ccapi inout**
- **debug ras**
- **debug h225 asn1**
- **debug h245 asn1**
- **debug cch323 h225**
- **debug cch323 h245**
- **debug voip rtp session note named-event**

Output di debug

In questa sezione vengono forniti gli output di debug per questo flusso di chiamate di esempio:

1. [Chiamata in arrivo da PSTN a 800-555-5555](#)
2. [Il gateway in ingresso corrisponde al Dial-Peer 2 in ingresso](#)
3. [Il gateway in ingresso corrisponde al Dial-Peer 1 in uscita](#)

4. [Il GW in ingresso precede il prefisso tecnico "#2" e invia una richiesta di ammissione \(ARQ\) al Gatekeeper](#)
5. [GW in ingresso invia una chiamata ISDN in corso nella coda POTS](#)
6. [GW in ingresso riceve la conferma di ammissione da GK. L'indirizzo IP di destinazione è l'indirizzo IP del CVP \(172.18.110.75\)](#)
7. [GW invia un messaggio di installazione di H225 FastStart a CVP](#)
8. [GW riceve il messaggio H225 Connect da CVP](#)
9. [GW invia la risposta alla richiesta di informazioni \(IRR\) al Gatekeeper](#)
10. [GW stabilisce la connessione TCP H245 a CVP e invia un messaggio TCS \(Terminal Capability Set\) e determinazione slave master a CVP](#)
11. [GW riceve un messaggio TCS e MSD da CVP](#)
12. [GW in ingresso invia TCS Ack e MSD Ack a CVP](#)
13. [GW in ingresso riceve TCS e MSD ACK da CVP](#)
14. [A questo punto, CVP reindirizza la connessione multimediale al gateway VXML. GW in ingresso riceve TCS vuoti da CVP](#)
15. [GW in ingresso chiude il proprio canale logico inviando CloseLogicalChannel \(CLC\) a CVP](#)
16. [Il GW in ingresso invia un ACK TCS al CVP](#)
17. [Il GW in entrata invia una richiesta di larghezza di banda al Gatekeeper per aggiornare la larghezza di banda corrente \(zero\) utilizzata per la chiamata](#)
18. [CVP chiude il proprio canale logico inviando CLC al GW in ingresso](#)
19. [GW in ingresso riceve TCS e MSD da CVP. Questo TCS fornisce informazioni sulle funzionalità terminali del gateway VXML](#)
20. [Ingress GW invia i suoi TCS e MSD al CVP](#)
21. [GW in ingresso invia un ACK MSD e un ACK TCS a CVP](#)
22. [Il GW in ingresso invia un messaggio BRQ al Gatekeeper per aggiornare la larghezza di banda utilizzata per la chiamata \(\$2*64=128\$ kbps\)](#)
23. [GW in ingresso invia una richiesta OLC al CVP](#)
24. [GW in ingresso riceve OLC dal CVP. CVP fornisce l'indirizzo IP del gateway VXML per la connessione RTCP](#)
25. [GW in ingresso invia la risposta ACK OLC al CVP](#)
26. [GW in ingresso riceve l'ACK OLC dal CVP. CVP fornisce l'indirizzo IP del gateway VXML per la connessione RTP. È stata stabilita una connessione RTP tra GW in entrata e VXML](#)
[GW](#)
27. [Il gateway rileva la cifra DTMF "1" e la invia al VXML GW tramite eventi di relay DTMF basati su RTP NTE \(RFC 2833\)](#)
28. [Ora, CVP reindirizza la chiamata al telefono IP dell'agente che ha risposto alla chiamata. GW in ingresso riceve STC vuoti](#)
29. Esecuzione dei passaggi da 15 a 18 (output del debug non mostrato)
30. [GW in ingresso riceve TCS e MSD da CVP. Questo TCS fornisce informazioni sulle capacità terminali del telefono IP](#)
31. Esecuzione dei passaggi da 20 a 23 (output del debug non visualizzati)
32. [GW in ingresso riceve OLC dal CVP. CVP fornisce l'indirizzo IP di CallManager per la connessione RTCP](#)
33. [GW invia la risposta ACK OLC al CVP](#)
34. [GW riceve l'ACK OLC da CVP. CVP fornisce l'indirizzo IP del telefono IP dell'agente per la connessione RTP. È stata stabilita una connessione RTP tra il GW in entrata e il telefono IP](#)
35. [Al termine della conversazione con l'agente, il chiamante PSTN interrompe la chiamata. GW in entrata riceve la disconnessione ISDN dalla PSTN](#)

36. [Il GW in ingresso termina la chiamata H323 sul segmento IP inviando un messaggio H225 Release Complete al CVP](#)
37. [GW invia la richiesta di disinnesto \(DRQ\) al Gatekeeper](#)
38. [La connessione H245 tra GW e CVP si chiude dopo lo scambio dei comandi CLC ed EndSession](#)

Nota: alcune delle linee nell'output di questa sezione sono state spostate nella seconda linea a causa dei vincoli di spazio.

[Chiamata in arrivo da PSTN a 800-555-5555](#)

```
*Aug 17 17:21:15.777: ISDN Se1/0/0:23 Q931: RX <- SETUP pd = 8 callref = 0x0088
```

```
Bearer Capability i = 0x8090A2
```

```
Standard = CCITT
```

```
Transfer Capability = Speech
```

```
Transfer Mode = Circuit
```

```
Transfer Rate = 64 kbit/s
```

```
Channel ID i = 0xA98381
```

```
Exclusive, Channel 1
```

```
Progress Ind i = 0x8583 - Origination address is non-ISDN
```

```
Calling Party Number i = 0x0080, '9999'
```

```
Plan:Unknown, Type:Unknown
```

```
Called Party Number i = 0xA1, '8005555555'
```

```
Plan:ISDN, Type:National
```

```
*Aug 17 17:21:15.781: //-1/182F2991800A/CCAPI/cc_api_display_ie_subfields:
```

```
cc_api_call_setup_ind_common:
```

```
cisco-username=
```

```
----- ccCallInfo IE subfields -----
```

```
cisco-ani=9999
```

```
cisco-anitype=0
```

```
cisco-aniplan=0
```

```
cisco-anipi=0
```

```
cisco-anisi=0
```

```
dest=8005555555
```

```
cisco-desttype=2
```

```
cisco-destplan=1
```

```
cisco-rdie=FFFFFFFF
cisco-rdn=
cisco-rdntype=-1
cisco-rdnplan=-1
cisco-rdnpi=-1
cisco-rdnsi=-1
cisco-redirectreason=-1 fwd_final_type =0
final_redirectNumber =
hunt_group_timeout =0
```

[Il gateway in ingresso corrisponde al Dial-Peer 2 in ingresso](#)

```
*Aug 17 17:21:15.781: //-1/182F2991800A/CCAPI/cc_api_call_setup_ind_common:
Interface=0x46964DF8, Call Info(
Calling Number=9999,(Calling Name=)(TON=Unknown, NPI=Unknown, Screening=Not Screened,
Presentation=Allowed),
Called Number=8005555555(TON=National, NPI=ISDN),
Calling Translated=FALSE, Subscriber Type Str=RegularLine, FinalDestinationFlag=TRUE,
Incoming Dial-peer=2, Progress Indication=ORIGINATING SIDE IS NON ISDN(3),
Calling IE Present=TRUE,
Source Trkgrp Route Label=, Target Trkgrp Route Label=, CLID Transparent=FALSE),
Call Id=-1
```

[Il gateway in ingresso corrisponde al Dial-Peer 1 in uscita](#)

```
*Aug 17 17:21:15.793: //228/182F2991800A/CCAPI/ccIFCallSetupRequestPrivate:
Interface=0x46A5D878, Interface Type=1, Destination=, Mode=0x0,
Call Params(Calling Number=9999,(Calling Name=)(TON=Unknown, NPI=Unknown,
Screening=Not Screened, Presentation=Allowed),
Called Number=8005555555(TON=National, NPI=ISDN), Calling Translated=FALSE,
Subscriber Type Str=RegularLine, FinalDestinationFlag=TRUE, Outgoing Dial-peer=1,
Call Count On=FALSE,
Source Trkgrp Route Label=, Target Trkgrp Route Label=, tg_label_flag=0,
Application Call Id=)
```

[Il GW in ingresso precede il prefisso tecnico "#2" e invia una richiesta di ammissione \(ARQ\) al Gatekeeper](#)

```
*Aug 17 17:21:15.797: H225 NONSTD OUTGOING PDU ::=
```

```
value ARQnonStandardInfo ::=
{
    sourceAlias
    {
    }
    sourceExtAlias
    {
    }
    callingOctet3a 128
    interfaceSpecificBillingId "ISDN 1/0/0:23"
    gtd '49414D2C0D0A50524E2C6973646E2A2C2C4E492A...'H
    ingressNetwork scn : NULL
}
```

```
*Aug 17 17:21:15.797: H225 NONSTD OUTGOING ENCODE BUFFER::= 80000010A901800E18495
3444E20312F302F303A323380AC00A949414D2C0D0A50524E2C6973646E2A2C2C4E492A2A2A2C0D0A
5553492C726174652C632C732C632C310D0A5553492C6C6179312C756C61770D0A544D522C30300D0
A43504E2C30342C2C312C383030353535353535350D0A43474E2C30302C2C752C792C312C39393939
0D0A4350432C30390D0A4643492C2C2C2C2C2C792C0D0A4743492C3138326632393931346331643
1316463383030613030313765306162613833380D0A0D0A0100
```

```
*Aug 17 17:21:15.801:
```

```
*Aug 17 17:21:15.801: RAS OUTGOING PDU ::=
```

```
value RasMessage ::= admissionRequest :
{
    requestSeqNum 15287
    callType pointToPoint : NULL
    callModel direct : NULL
    endpointIdentifier {"84B3CC1C00000004"}
    destinationInfo
    {
        dialedDigits : "2#8005555555"
```

```
}
srcInfo
{
  dialedDigits : "9999",
  h323-ID : {"PSTN-GW"}
}
bandwidth 1280
callReferenceValue 67
nonStandardData
{
  nonStandardIdentifier h221NonStandard :
  {
    t35CountryCode 181
    t35Extension 0
    manufacturerCode 18
  }
  data '80000010A901800E184953444E20312F302F303A...'H
}
conferenceID '182F29914C1D11DC800A0017E0ABA838'H
activeMC FALSE
answerCall FALSE
canMapAlias TRUE
callIdentifier
{
  guid '182FC5B94C1D11DC8298DF9092AE2C6A'H
}
willSupplyUUIEs FALSE
}
```

[GW in ingresso invia una chiamata ISDN in corso nella coda POTS](#)

*Aug 17 17:21:15.805: ISDN Se1/0/0:23 Q931: TX -> CALL_PROC pd = 8 callref = 0x8088

Channel ID i = 0xA98381

Exclusive, Channel 1

[GW in ingresso riceve la conferma di ammissione da GK. L'indirizzo IP di destinazione è l'indirizzo IP del CVP \(172.18.110.75\)](#)

*Aug 17 17:21:15.861: RAS INCOMING PDU ::=

value RasMessage ::= admissionConfirm :

{

requestSeqNum 15287

bandwidth 1280

callModel direct : NULL

destCallSignalAddress ipAddress :

{

ip 'AC126E4B'H

port 1720

}

irrFrequency 240

nonStandardData

{

nonStandardIdentifier h221NonStandard :

{

t35CountryCode 181

t35Extension 0

manufacturerCode 18

}

data '00020180CCCC400B004100720075006E002D0050... 'H

}

willRespondToIRR FALSE

uuiesRequested

{

setup FALSE

callProceeding FALSE

```
connect FALSE
alerting FALSE
information FALSE
releaseComplete FALSE
facility FALSE
progress FALSE
empty FALSE
}
usageSpec
{
  {
    when
    {
      end NULL
      inIrr NULL
    }
    callStartingPoint
    {
      connect NULL
    }
    required
    {
      nonStandardUsageTypes
      {
      }
      startTime NULL
      endTime NULL
      terminationCause NULL
    }
  }
}
```


}

GW invia un messaggio di installazione di H225 FastStart a CVP

*Aug 17 17:21:15.865: H245 FS OLC OUTGOING PDU ::=

value OpenLogicalChannel ::=

{

forwardLogicalChannelNumber 1

forwardLogicalChannelParameters

{

dataType audioData : g711Ulaw64k : 20

multiplexParameters h225LogicalChannelParameters :

{

sessionID 1

mediaControlChannel unicastAddress : ipAddress :

{

network '0E32C90B'H

tsapIdentifier 18491

}

silenceSuppression FALSE

}

}

}

*Aug 17 17:21:15.869: H245 FS OLC OUTGOING ENCODE BUFFER::=
0000000C6013800B050001000E32C90B483B00

*Aug 17 17:21:15.869:

*Aug 17 17:21:15.869: H245 FS OLC OUTGOING PDU ::=

value OpenLogicalChannel ::=

{

```

forwardLogicalChannelNumber 1

forwardLogicalChannelParameters
{
    dataType nullData : NULL

    multiplexParameters none : NULL
}

reverseLogicalChannelParameters
{
    dataType audioData : g711Ulaw64k : 20

    multiplexParameters h2250LogicalChannelParameters :
    {
        sessionID 1

        mediaChannel unicastAddress : ipAddress :
        {
            network '0E32C90B'H

            tsapIdentifier 18490
        }

        mediaControlChannel unicastAddress : ipAddress :
        {
            network '0E32C90B'H

            tsapIdentifier 18491
        }

        silenceSuppression FALSE
    }
}
}

```

```

*Aug 17 17:21:15.869: H245 FS OLC OUTGOING ENCODE BUFFER::=
400000060401004C60138012150001000E32C90B483A000E32C90B483B00

```

```

*Aug 17 17:21:15.869:

```

```

*Aug 17 17:21:15.869: //229/182F2991800A/H323/generic_send_setup:

```

generic_send_setup: is_overlap = 0, info_complete = 0

*Aug 17 17:21:15.869: //229/182F2991800A/H323/generic_send_setup: sending calling IE

*Aug 17 17:21:15.869: //229/182F2991800A/H323/generic_send_setup: ===== PI = 3

*Aug 17 17:21:15.869: //229/182F2991800A/H323/generic_send_setup: Send infoXCap=128, infoXRate=16, rateMult=0, xMode=128, info_layer1_prot=163

*Aug 17 17:21:15.869: //229/182F2991800A/H323/generic_send_setup: src address = 14.50.201.11; dest address = 172.18.110.75

*Aug 17 17:21:15.869: H225 NONSTD OUTGOING PDU ::=

value H323_UU_NonStdInfo ::=

```
{
  version 2
  protoParam qsigNonStdInfo :
  {
    iei 4
    rawMesg '04038090A21803A983811E0285836C0600803939...'H
  }
  progIndParam progIndIEinfo :
  {
    progIndIE '00000003'H
  }
}
```

*Aug 17 17:21:15.873: H225 NONSTD OUTGOING ENCODE BUFFER::= E001020001042304038090A21803A983811E0285836C060080393939700BA13830303535353535350A8006000400000003

*Aug 17 17:21:15.873:

*Aug 17 17:21:15.873: H225.0 OUTGOING PDU ::=

value H323_UserInformation ::=

```
{
  h323-uu-pdu
```

```
{
  h323-message-body setup :
  {
    protocolIdentifier { 0 0 8 2250 0 4 }
    sourceAddress
    {
      h323-ID : {"PSTN-GW"}
    }
    sourceInfo
    {
      vendor
      {
        vendor
        {
          t35CountryCode 181
          t35Extension 0
          manufacturerCode 18
        }
      }
    }
    gateway
    {
      protocol
      {
        voice :
        {
          supportedPrefixes
          {
            {
              prefix dialedDigits : "1#"
            }
          }
        }
      }
    }
  }
}
```

```
    },          h323 :
    {
        supportedPrefixes
        {
            }
        }
    }
}

mc FALSE

undefinedNode FALSE
}

activeMC FALSE

conferenceID '182F29914C1D11DC800A0017E0ABA838'H

conferenceGoal create : NULL

callType pointToPoint : NULL

sourceCallSignalAddress ipAddress :
{
    ip '0E32C90B'H
    port 22143
}

callIdentifier
{
    guid '182FC5B94C1D11DC8298DF9092AE2C6A'H
}

fastStart
{
    '0000000C6013800B050001000E32C90B483B00'H,
    '400000060401004C60138012150001000E32C90B...'H
}

mediaWaitForConnect FALSE

canOverlapSend FALSE

multipleCalls TRUE
```

```
    maintainConnection TRUE

    symmetricOperationRequired NULL
}

h245Tunneling TRUE

nonStandardControl
{

    {

        nonStandardIdentifier h221NonStandard :

        {

            t35CountryCode 181

            t35Extension 0

            manufacturerCode 18

        }

        data 'E001020001042304038090A21803A983811E0285...'H

    }

}

}
```

[GW riceve il messaggio H225 Connect da CVP](#)

*Aug 17 17:21:15.913: H225.0 INCOMING PDU ::=

value H323_UserInformation ::=

```
{

    h323-uu-pdu

    {

        h323-message-body connect :

        {

            protocolIdentifier { 0 0 8 2250 0 5 }

            h245Address ipAddress :

            {
```

```
    ip 'AC126E4B'H
    port 19698
  }
  destinationInfo
  {
    gateway
    {
      protocol
      {
        voice :
        {
          supportedPrefixes
          {
            {
              prefix dialedDigits : "2#"
            }
          }
        }
      }
    }
    mc FALSE
    undefinedNode FALSE
  }
  conferenceID '182F29914C1D11DC800A0017E0ABA838'H
  callIdentifier
  {
    guid '182FC5B94C1D11DC8298DF9092AE2C6A'H
  }
  fastStart
  {
    '400080060401004C6013801215000100AC126E4B...'H,
```

```
'0000000C6013801215000100AC126E4B406000AC...'H
}
multipleCalls FALSE
maintainConnection TRUE
presentationIndicator presentationAllowed : NULL
screeningIndicator 2
featureSet
{
  replacementFeatureSet FALSE
  neededFeatures
  {
  }
  desiredFeatures
  {
  }
  supportedFeatures
  {
  }
}
h245Tunneling FALSE
}
}
```

```
*Aug 17 17:21:15.917: //-1/xxxxxxxxxxxx/H323/cch323_h225_receiver:
Received msg of type SETUPCFM_CHOSEN
```

```
*Aug 17 17:21:15.917: //229/182F2991800A/H323/setup_cfm_ind: ===== PI = 0
```

```
*Aug 17 17:21:15.917: //229/182F2991800A/H323/setup_cfm_ind:
Set new event H225_EV_FS_SETUP_CFM_IND
```

```
*Aug 17 17:21:15.917: //229/182F2991800A/H323/setup_cfm_ind:
Rcvd CONNECT Display Info IE = rtpmscvp
```

```
*Aug 17 17:21:15.917: //229/182F2991800A/H323/cch323_h225_receiver:
```


SETUPCFM_CHOSEN: src address = 14.50.201.11; dest address = 172.18.110.75

*Aug 17 17:21:15.917: //229/182F2991800A/H323/run_h225_sm:
Received event H225_EV_FS_SETUP_CFM_IND while at state H225_REQ_FS_SETUP

*Aug 17 17:21:15.917: //229/182F2991800A/H323/cch323_h225_set_new_state:
Changing from H225_REQ_FS_SETUP state to H225_FS_ACTIVE state

*Aug 17 17:21:15.917: H245 FS OLC INCOMING ENCODE BUFFER::=
400080060401004C6013801215000100AC126E4B406000AC126E4B406100

*Aug 17 17:21:15.917:

*Aug 17 17:21:15.917: H245 FS OLC INCOMING PDU ::=

value OpenLogicalChannel ::=

```
{  
  
    forwardLogicalChannelNumber 129  
  
    forwardLogicalChannelParameters  
  
    {  
  
        dataType nullData : NULL  
  
        multiplexParameters none : NULL  
  
    }  
  
    reverseLogicalChannelParameters  
  
    {  
  
        dataType audioData : g711Ulaw64k : 20  
  
        multiplexParameters h2250LogicalChannelParameters :  
  
        {  
  
            sessionID 1  
  
            mediaChannel unicastAddress : ipAddress :  
  
            {  
  
                network 'AC126E4B'H  
  
                tsapIdentifier 16480  
  
            }  
  
            mediaControlChannel unicastAddress : ipAddress :  
  
            {  
  
                network 'AC126E4B'H  
  
                tsapIdentifier 16481  
  
            }  
  
        }  
  
    }  
}
```

```
        silenceSuppression FALSE
    }
}
}
```

```
*Aug 17 17:21:15.921: H245 FS OLC INCOMING ENCODE BUFFER ::=
0000000C6013801215000100AC126E4B406000AC126E4B406100
```

```
*Aug 17 17:21:15.921:
```

```
*Aug 17 17:21:15.921: H245 FS OLC INCOMING PDU ::=
```

```
value OpenLogicalChannel ::=
```

```
{
    forwardLogicalChannelNumber 1
    forwardLogicalChannelParameters
    {
        dataType audioData : g711Ulaw64k : 20
        multiplexParameters h2250LogicalChannelParameters :
        {
            sessionID 1
            mediaChannel unicastAddress : ipAddress :
            {
                network 'AC126E4B'H
                tsapIdentifier 16480
            }
            mediaControlChannel unicastAddress : ipAddress :
            {
                network 'AC126E4B'H
                tsapIdentifier 16481
            }
        }
        silenceSuppression FALSE
    }
}
```

```
}  
}  
}
```

[GW invia la risposta alla richiesta di informazioni \(IRR\) al Gatekeeper](#)

```
*Aug 17 17:21:15.925: H225 NONSTD OUTGOING PDU ::=
```

```
value IRRperCallnonStandardInfo ::=
```

```
{  
    startTime 1187371275  
}
```

```
*Aug 17 17:21:15.925: H225 NONSTD OUTGOING ENCODE BUFFER ::= 7046C5D90B
```

```
*Aug 17 17:21:15.925:
```

```
*Aug 17 17:21:15.925: RAS OUTGOING PDU ::=
```

```
value RasMessage ::= infoRequestResponse :
```

```
{  
    requestSeqNum 15288  
    endpointType  
    {  
        vendor  
        {  
            vendor  
            {  
                t35CountryCode 181  
                t35Extension 0  
                manufacturerCode 18  
            }  
        }  
    }  
}
```

```
gateway
{
  protocol
  {
    voice :
    {
      supportedPrefixes
      {
        {
          prefix dialedDigits : "1#"
        }
      }
    },
    h323 :
    {
      supportedPrefixes
      {
        }
      }
    }
  }
  mc FALSE
  undefinedNode FALSE
}
endpointIdentifier {"84B3CC1C00000004"}
rasAddress ipAddress :
{
  ip '0E32C90B'H
  port 50363
}
callSignalAddress
{
```

```
ipAddress :
{
  ip '0E32C90B'H
  port 1720
}
}
endpointAlias
{
  h323-ID : {"PSTN-GW"}
}
perCallInfo
{
  {
    nonStandardData
    {
      nonStandardIdentifier h221NonStandard :
      {
        t35CountryCode 181
        t35Extension 0
        manufacturerCode 18
      }
      data '7046C5D90B'H
    }
    callReferenceValue 67
    conferenceID '182F29914C1D11DC800A0017E0ABA838'H
    originator TRUE
    h245
    {
    }
    callSignaling
    {
```

```

}

callType pointToPoint : NULL

bandWidth 1280

callModel direct : NULL

callIdentifier

{

    guid '182FC5B94C1D11DC8298DF9092AE2C6A'H

}

substituteConfIDs

{

}

usageInformation

{

    nonStandardUsageFields

    {

    }

    connectTime 1187371275

}

}

}

needResponse FALSE

unsolicited TRUE

}

```

[GW stabilisce la connessione TCP H245 a CVP e invia un messaggio TCS \(Terminal Capability Set\) e determinazione slave master a CVP](#)

*Aug 17 17:21:15.953: H245 MSC OUTGOING PDU ::=

```

value MultimediaSystemControlMessage ::= request : terminalCapabilitySet :

{

    sequenceNumber 1

    protocolIdentifier { 0 0 8 245 0 7 }

    multiplexCapability h2250Capability :

```

```
{
  maximumAudioDelayJitter 20
  receiveMultipointCapability
  {
    multicastCapability FALSE
    multiUniCastConference FALSE
    mediaDistributionCapability
    {
      {
        centralizedControl FALSE
        distributedControl FALSE
        centralizedAudio FALSE
        distributedAudio FALSE
        centralizedVideo FALSE
        distributedVideo FALSE
      }
    }
  }
  transmitMultipointCapability
  {
    multicastCapability FALSE
    multiUniCastConference FALSE
    mediaDistributionCapability
    {
      {
        centralizedControl FALSE
        distributedControl FALSE
        centralizedAudio FALSE
        distributedAudio FALSE
        centralizedVideo FALSE
      }
    }
  }
}
```

```
        distributedVideo FALSE
    }
}
receiveAndTransmitMultipointCapability
{
    multicastCapability FALSE
    multiUniCastConference FALSE
    mediaDistributionCapability
    {
        {
            centralizedControl FALSE
            distributedControl FALSE
            centralizedAudio FALSE
            distributedAudio FALSE
            centralizedVideo FALSE
            distributedVideo FALSE
        }
    }
}
mcCapability
{
    centralizedConferenceMC FALSE
    decentralizedConferenceMC FALSE
}
rtcpVideoControlCapability FALSE
mediaPacketizationCapability
{
    h261aVideoPacketization FALSE
}
logicalChannelSwitchingCapability FALSE
```



```
t120DynamicPortCapability FALSE
}
capabilityTable
{
    {
        capabilityTableEntryNumber 34
        capability receiveRTPAudioTelephonyEventCapability :
        {
            dynamicRTPPayloadType 101
            audioTelephoneEvent "0-16"
        }
    },
    {
        capabilityTableEntryNumber 25
        capability receiveAndTransmitDataApplicationCapability :
        {
            application nonStandard :
            {
                nonStandardIdentifier h221NonStandard :
                {
                    t35CountryCode 181
                    t35Extension 0
                    manufacturerCode 18
                }
                data '52747044746D6652656C6179'H
            }
            maxBitRate 0
        }
    },
    {
        capabilityTableEntryNumber 31
```

```
    capability receiveUserInputCapability : hookflash : NULL
  },
  {
    capabilityTableEntryNumber 30
    capability receiveUserInputCapability : dtmf : NULL
  },
  {
    capabilityTableEntryNumber 27
    capability receiveUserInputCapability : basicString : NULL
  },
  {
    capabilityTableEntryNumber 3
    capability receiveAudioCapability : g711Ulaw64k : 20
  }
}
capabilityDescriptors
{
  {
    capabilityDescriptorNumber 1
    simultaneousCapabilities
    {
      {
        3
      },
      {
        34,
        30,
        27,
        25
```

```
    },  
  
    {  
        31  
    }  
}  
}  
}  
}  
}
```

```
*Aug 17 17:21:15.961: H245 MSC OUTGOING ENCODE BUFFER ::=  
027001060008817500078013800014000100000100000100000CC0010  
00100058000218A061404302D31368000184810B50000120C52747044  
746D6652656C6179000080001E83015080001D83014080001A8301108  
0000220C01300800102000002030021001D001A001800001E
```

```
*Aug 17 17:21:15.961:
```

```
*Aug 17 17:21:15.961: //229/182F2991800A/H323/h245_cap_out_set_new_state:  
changing from IDLE state to AWAITING_RESPONSE state
```

```
*Aug 17 17:21:15.961: //229/182F2991800A/H323/cch323_run_h245_ms_sm:  
Received event H245_EVENT_MSD while at state H245_MS_NONE
```

```
*Aug 17 17:21:15.961: H245 MSC OUTGOING PDU ::=
```

```
value MultimediaSystemControlMessage ::= request : masterSlaveDetermination :
```

```
{  
    terminalType 60  
    statusDeterminationNumber 9348  
}
```

[GW riceve un messaggio TCS e MSD da CVP](#)

```
*Aug 17 17:21:15.965: H245 MSC INCOMING PDU ::=
```

```
value MultimediaSystemControlMessage ::= request : terminalCapabilitySet :
```

```
{  
    sequenceNumber 1
```

protocolIdentifier { 0 0 8 245 0 11 }

capabilityTable

{

{

capabilityTableEntryNumber 1

capability receiveAndTransmitAudioCapability : g711Ulaw64k : 20

},

{

capabilityTableEntryNumber 2

capability receiveAndTransmitUserInputCapability : basicString : NULL

},

{

capabilityTableEntryNumber 3

capability receiveAndTransmitUserInputCapability : dtmf : NULL

},

{

capabilityTableEntryNumber 4

capability receiveAndTransmitUserInputCapability : hookflash : NULL

},

{

capabilityTableEntryNumber 5

capability receiveAndTransmitUserInputCapability : iA5String : NULL

},

{

capabilityTableEntryNumber 729

capability receiveAndTransmitAudioCapability : g729 : 2

}

}

capabilityDescriptors

{

```
{
  capabilityDescriptorNumber 1
  simultaneousCapabilities
  {
    {
      1,
      2,
      3,
      4,
      5,
      729
    },
    {
      1,
      729
    },
    {
      1
    }
  }
}
```

*Aug 17 17:21:15.969: H245 MSC INCOMING PDU ::=

```
value MultimediaSystemControlMessage ::= request : masterSlaveDetermination :
{
  terminalType 50
```

statusDeterminationNumber 767617

}

GW in ingresso invia TCS Ack e MSD Ack a CVP

*Aug 17 17:21:15.969: H245 MSC OUTGOING PDU ::=

value MultimediaSystemControlMessage ::= response : terminalCapabilitySetAck :

{

sequenceNumber 1

}

*Aug 17 17:21:15.969: //229/182F2991800A/H323/MSDetermination:

Am MASTER, ccb->h245.h245_mdStatus = 0x1

*Aug 17 17:21:15.969: H245 MSC OUTGOING PDU ::=

value MultimediaSystemControlMessage ::= response : masterSlaveDeterminationAck :

{

decision slave : NULL

}

GW in ingresso riceve TCS e MSD ACK da CVP

*Aug 17 17:21:15.973: H245 MSC INCOMING PDU ::=

value MultimediaSystemControlMessage ::= response : terminalCapabilitySetAck :

{

sequenceNumber 1

}

*Aug 17 17:21:15.973: h245_decode_one_pdu: H245ASNDecodePdu rc = 0, bytesLeftToDecode = 0

*Aug 17 17:21:15.973: h245_decode_one_pdu: Read Pkt body: more_pdus:0 rc:0 asn_rc:0

*Aug 17 17:21:15.973: //229/182F2991800A/H323/cch323_run_h245_cap_out_sm:

Received H245_EVENT_CAP_CFM while at state AWAITING_RESPONSE

*Aug 17 17:21:15.973: //229/182F2991800A/H323/h245_cap_out_set_new_state:
changing from AWAITING_RESPONSE state to IDLE state

*Aug 17 17:21:15.973: //229/182F2991800A/H323/run_h245_iwf_sm:
received IWF_EV_CAP_CFM while at state IWF_AWAIT_CAP_MSD_RESP

*Aug 17 17:21:15.977: //229/182F2991800A/H323/h245_iwf_set_new_state:
changing from IWF_AWAIT_CAP_MSD_RESP state to IWF_AWAIT_MSD_RESP state

*Aug 17 17:21:15.977: h323chan_chn_process_read_socket

*Aug 17 17:21:15.977: h323chan_chn_process_read_socket: fd=4 of type CONNECTED has data

*Aug 17 17:21:15.977: h323chan_chn_process_read_socket: h323chan accepted/connected fd=4

*Aug 17 17:21:15.977: h245_decode_one_pdu: more_pdus = 0, bytesLeftToDecode = 2

*Aug 17 17:21:15.977: H245 MSC INCOMING ENCODE BUFFER ::= 2080

*Aug 17 17:21:15.977:

*Aug 17 17:21:15.977: H245 MSC INCOMING PDU ::=

value MultimediaSystemControlMessage ::= response : masterSlaveDeterminationAck :

```
{  
    decision master : NULL  
}
```

[**A questo punto, CVP reindirizza la connessione multimediale al gateway VXML. GW in ingresso riceve TCS vuoti da CVP**](#)

*Aug 17 17:21:15.985: H245 MSC INCOMING PDU ::=

value MultimediaSystemControlMessage ::= request : terminalCapabilitySet :

```
{  
    sequenceNumber 2  
    protocolIdentifier { 0 0 8 245 0 11 }  
}
```

[**GW in ingresso chiude il proprio canale logico inviando CloseLogicalChannel \(CLC\) a CVP**](#)

*Aug 17 17:21:15.985: H245 MSC OUTGOING PDU ::=

value MultimediaSystemControlMessage ::= request : closeLogicalChannel :

```
{  
    forwardLogicalChannelNumber 1  
    source user : NULL  
}
```

[Il GW in ingresso invia un ACK TCS al CVP](#)

```
*Aug 17 17:21:15.985: H245 MSC OUTGOING ENCODE BUFFER ::= 0400000000  
*Aug 17 17:21:15.985:  
*Aug 17 17:21:15.985: //229/182F2991800A/H323/h245_olc_out_set_new_state:  
Changing from H245_OLC_OUT_STATE_ESTABLISHED state to H245_OLC_OUT_STATE_IDLE state  
*Aug 17 17:21:15.985: //229/182F2991800A/H323/h245_iwf_set_new_state:  
changing from IWF_OLC_DONE state to IWF_OLC_IN_DONE state  
*Aug 17 17:21:15.985: //229/182F2991800A/H323/cch323_run_h245_cap_in_sm:  
Received H245_EVENT_CAP_RESP while at state AWAITING_RESPONSE  
*Aug 17 17:21:15.985: H245 MSC OUTGOING PDU ::=
```

```
value MultimediaSystemControlMessage ::= response : terminalCapabilitySetAck :  
  
{  
    sequenceNumber 2  
}
```

[Il GW in entrata invia una richiesta di larghezza di banda al Gatekeeper per aggiornare la larghezza di banda corrente \(zero\) utilizzata per la chiamata](#)

```
*Aug 17 17:21:15.985: H245 MSC OUTGOING ENCODE BUFFER ::= 218002  
*Aug 17 17:21:15.985:  
*Aug 17 17:21:15.985: //229/182F2991800A/H323/h245_cap_in_set_new_state:  
changing from AWAITING_RESPONSE state to IDLE state  
*Aug 17 17:21:15.989: RAS OUTGOING PDU ::=
```

```
value RasMessage ::= bandwidthRequest :  
  
{  
    requestSeqNum 15289  
    endpointIdentifier {"84B3CC1C00000004"}  
    conferenceID '182F29914C1D11DC800A0017E0ABA838'H  
    callReferenceValue 67
```



```
bandwidth 0

callIdentifier

{
    guid '182FC5B94C1D11DC8298DF9092AE2C6A'H
}

answeredCall FALSE

}
```

[CVP chiude il proprio canale logico inviando CLC al GW in ingresso](#)

*Aug 17 17:21:15.989: H245 MSC INCOMING PDU ::=

```
value MultimediaSystemControlMessage ::= request : closeLogicalChannel :

{
    forwardLogicalChannelNumber 129

    source user : NULL

    reason unknown : NULL

}
```

*Aug 17 17:21:15.989: h245_decode_one_pdu: H245ASNDecodePdu rc = 0, bytesLeftToDecode = 0

*Aug 17 17:21:15.989: h245_decode_one_pdu: Read Pkt body: more_pdus:0 rc:0 asn_rc:0

*Aug 17 17:21:15.989: H245 MSC OUTGOING PDU ::=

```
value MultimediaSystemControlMessage ::= response : closeLogicalChannelAck :

{
    forwardLogicalChannelNumber 129

}
```

[GW in ingresso riceve TCS e MSD da CVP. Questo TCS fornisce informazioni sulle funzionalità terminali del gateway VXML](#)

*Aug 17 17:21:16.129: H245 MSC INCOMING PDU ::=

```
value MultimediaSystemControlMessage ::= request : terminalCapabilitySet :
{
  sequenceNumber 3
  protocolIdentifier { 0 0 8 245 0 11 }
  multiplexCapability h2250Capability :
  {
    maximumAudioDelayJitter 20
    receiveMultipointCapability
    {
      multicastCapability FALSE
      multiUniCastConference FALSE
      mediaDistributionCapability
      {
        {
          centralizedControl FALSE
          distributedControl FALSE
          centralizedAudio FALSE
          distributedAudio FALSE
          centralizedVideo FALSE
          distributedVideo FALSE
        }
      }
    }
    transmitMultipointCapability
    {
      multicastCapability FALSE
      multiUniCastConference FALSE
      mediaDistributionCapability
      {
        {
```

```
        centralizedControl FALSE
        distributedControl FALSE
        centralizedAudio FALSE
        distributedAudio FALSE
        centralizedVideo FALSE
        distributedVideo FALSE
    }
}
}
receiveAndTransmitMultipointCapability
{
    multicastCapability FALSE
    multiUniCastConference FALSE
    mediaDistributionCapability
    {
        {
            centralizedControl FALSE
            distributedControl FALSE
            centralizedAudio FALSE
            distributedAudio FALSE
            centralizedVideo FALSE
            distributedVideo FALSE
        }
    }
}
mcCapability
{
    centralizedConferenceMC FALSE
    decentralizedConferenceMC FALSE
}
rtcpVideoControlCapability FALSE
```

```
mediaPacketizationCapability
{
    h261aVideoPacketization FALSE
}
logicalChannelSwitchingCapability FALSE
t120DynamicPortCapability FALSE
}
capabilityTable
{
    {
        capabilityTableEntryNumber 34
        capability receiveRTPAudioTelephonyEventCapability :
        {
            dynamicRTPPayloadType 101
            audioTelephoneEvent "0-16"
        }
    },
    {
        capabilityTableEntryNumber 31
        capability receiveUserInputCapability : hookflash : NULL
    },
    {
        capabilityTableEntryNumber 30
        capability receiveUserInputCapability : dtmf : NULL
    },
    {
        capabilityTableEntryNumber 27
        capability receiveUserInputCapability : basicString : NULL
    },
    {
        capabilityTableEntryNumber 3
```

```
        capability receiveAudioCapability : g711Ulaw64k : 20
    }
}
capabilityDescriptors
{
    {
        capabilityDescriptorNumber 1
        simultaneousCapabilities
        {
            {
                3
            },
            {
                34,
                30,
                27
            },
            {
                31
            }
        }
    }
}
```

[Ingress GW invia i suoi TCS e MSD al CVP](#)

*Aug 17 17:21:16.141: H245 MSC OUTGOING PDU ::=

```
value MultimediaSystemControlMessage ::= request : terminalCapabilitySet :
{
  sequenceNumber 2
  protocolIdentifier { 0 0 8 245 0 7 }
  multiplexCapability h2250Capability :
  {
    maximumAudioDelayJitter 20
    receiveMultipointCapability
    {
      multicastCapability FALSE
      multiUniCastConference FALSE
      mediaDistributionCapability
      {
        {
          centralizedControl FALSE
          distributedControl FALSE
          centralizedAudio FALSE
          distributedAudio FALSE
          centralizedVideo FALSE
          distributedVideo FALSE
        }
      }
    }
    transmitMultipointCapability
    {
      multicastCapability FALSE
      multiUniCastConference FALSE
      mediaDistributionCapability
      {
        {
```

```
        centralizedControl FALSE
        distributedControl FALSE
        centralizedAudio FALSE
        distributedAudio FALSE
        centralizedVideo FALSE
        distributedVideo FALSE
    }
}
}
receiveAndTransmitMultipointCapability
{
    multicastCapability FALSE
    multiUniCastConference FALSE
    mediaDistributionCapability
    {
        {
            centralizedControl FALSE
            distributedControl FALSE
            centralizedAudio FALSE
            distributedAudio FALSE
            centralizedVideo FALSE
            distributedVideo FALSE
        }
    }
}
mcCapability
{
    centralizedConferenceMC FALSE
    decentralizedConferenceMC FALSE
}
rtcpVideoControlCapability FALSE
```

```
mediaPacketizationCapability
{
    h261aVideoPacketization FALSE
}

logicalChannelSwitchingCapability FALSE

t120DynamicPortCapability FALSE
}

capabilityTable
{

    {
        capabilityTableEntryNumber 34
        capability receiveRTPAudioTelephonyEventCapability :
        {
            dynamicRTPPayloadType 101
            audioTelephoneEvent "0-16"
        }
    },
    {
        capabilityTableEntryNumber 25
        capability receiveAndTransmitDataApplicationCapability :
        {
            application nonStandard :
            {
                nonStandardIdentifier h221NonStandard :
                {
                    t35CountryCode 181
                    t35Extension 0
                    manufacturerCode 18
                }
            }
            data '52747044746D6652656C6179'H
        }
    }
}
```



```
        maxBitRate 0
    }
},
{
    capabilityTableEntryNumber 31
    capability receiveUserInputCapability : hookflash : NULL
},
{
    capabilityTableEntryNumber 30
    capability receiveUserInputCapability : dtmf : NULL
},
{
    capabilityTableEntryNumber 27
    capability receiveUserInputCapability : basicString : NULL
},
{
    capabilityTableEntryNumber 3
    capability receiveAudioCapability : g711Ulaw64k : 20
}
}
capabilityDescriptors
{
    {
        capabilityDescriptorNumber 1
        simultaneousCapabilities
        {
            {
                3
            },
        }
    }
}
```

```
{
    34,
    30,
    27,
    25
},
{
    31
}
}
}
}
}
```

```
*Aug 17 17:21:16.149: H245 MSC OUTGOING ENCODE BUFFER ::=
027002060008817500078013800014000100000100000100000CC0010
00100058000218A061404302D31368000184810B50000120C52747044
746D6652656C6179000080001E83015080001D83014080001A8301108
0000220C01300800102000002030021001D001A001800001E
```

```
*Aug 17 17:21:16.149:
```

```
*Aug 17 17:21:16.149: //229/182F2991800A/H323/h245_cap_out_set_new_state:
changing from IDLE state to AWAITING_RESPONSE state
```

```
*Aug 17 17:21:16.149: //229/182F2991800A/H323/cch323_run_h245_ms_sm:
Received event H245_EVENT_MSD while at state H245_MS_NONE
```

```
*Aug 17 17:21:16.149: H245 MSC OUTGOING PDU ::=
```

```
value MultimediaSystemControlMessage ::= request : masterSlaveDetermination :
```

```
{
    terminalType 60
    statusDeterminationNumber 3855
}
```

[GW in ingresso invia un ACK MSD e un ACK TCS a CVP](#)

*Aug 17 17:21:16.153: H245 MSC OUTGOING PDU ::=

value MultimediaSystemControlMessage ::= response : masterSlaveDeterminationAck :

```
{  
    decision slave : NULL  
}
```

*Aug 17 17:21:16.153: H245 MSC OUTGOING ENCODE BUFFER::= 20A0

*Aug 17 17:21:16.153:

*Aug 17 17:21:16.153: //229/182F2991800A/H323/cch323_run_h245_ms_sm:
MS_Determine_indication to Appl: Sent MSD ACK!

*Aug 17 17:21:16.153: //229/182F2991800A/H323/h245_ms_set_new_state:
Changing from H245_MS_OUTGOING_WAIT state to H245_MS_INCOMING_WAIT state

*Aug 17 17:21:16.153: //229/182F2991800A/H323/run_h245_iwf_sm:
received IWF_EV_MSD_ACK_SENT while at state IWF_AWAIT_MSD_RESP

*Aug 17 17:21:16.153: //229/182F2991800A/H323/h245_iwf_common_msacksent:
Negotiated codecs and dtmf are initialised in ccb

*Aug 17 17:21:16.153: h323chan_chn_process_read_socket

*Aug 17 17:21:16.153: h323chan_chn_process_read_socket: fd=4 of type CONNECTED has data

*Aug 17 17:21:16.153: h323chan_chn_process_read_socket: h323chan accepted/connected fd=4

*Aug 17 17:21:16.153: h245_decode_one_pdu: more_pdus = 0, bytesLeftToDecode = 3

*Aug 17 17:21:16.153: H245 MSC INCOMING ENCODE BUFFER::= 218002

*Aug 17 17:21:16.153:

*Aug 17 17:21:16.153: H245 MSC INCOMING PDU ::=

value MultimediaSystemControlMessage ::= response : terminalCapabilitySetAck :

```
{  
    sequenceNumber 2  
}
```

[Il GW in ingresso invia un messaggio BRQ al Gatekeeper per aggiornare la larghezza di banda utilizzata per la chiamata \(2*64=128 kbps\)](#)

*Aug 17 17:21:16.157: RAS OUTGOING PDU ::=

value RasMessage ::= bandwidthRequest :

```
{
  requestSeqNum 15290
  endpointIdentifier {"84B3CC1C00000004"}
  conferenceID '182F29914C1D11DC800A0017E0ABA838'H
  callReferenceValue 67
  bandWidth 1280
  callIdentifier
  {
    guid '182FC5B94C1D11DC8298DF9092AE2C6A'H
  }
  answeredCall FALSE
}
```

*Aug 17 17:21:16.173: RAS INCOMING PDU ::=

value RasMessage ::= bandwidthConfirm :

```
{
  requestSeqNum 15290
  bandWidth 1280
}
```

[GW in ingresso invia una richiesta OLC al CVP](#)

*Aug 17 17:21:16.173: H245 MSC OUTGOING PDU ::=

value MultimediaSystemControlMessage ::= request : openLogicalChannel :

```
{
  forwardLogicalChannelNumber 2
  forwardLogicalChannelParameters
  {
    dataType audioData : g711Ulaw64k : 20
  }
}
```

```
multiplexParameters h2250LogicalChannelParameters :  
  
{  
  
  sessionID 1  
  
  mediaControlChannel unicastAddress : ipAddress :  
  
  {  
  
    network '0E32C90B'H  
  
    tsapIdentifier 18491  
  
  }  
  
  silenceSuppression FALSE  
  
}  
  
}
```

[GW in ingresso riceve OLC dal CVP. CVP fornisce l'indirizzo IP del gateway VXML per la connessione RTCP](#)

*Aug 17 17:21:16.177: H245 MSC INCOMING PDU ::=

```
value MultimediaSystemControlMessage ::= request : openLogicalChannel :  
  
{  
  
  forwardLogicalChannelNumber 258  
  
  forwardLogicalChannelParameters  
  
  {  
  
    dataType audioData : g711Ulaw64k : 20  
  
    multiplexParameters h2250LogicalChannelParameters :  
  
    {  
  
      sessionID 1  
  
      mediaControlChannel unicastAddress : ipAddress :  
  
      {  
  
        network '0E32C90F'H  
  
        tsapIdentifier 21135  
  
      }  
  
    }  
  
  }  
  
}
```

```
}
```

```
}
```

[GW invia la risposta ACK OLC al CVP](#)

```
*Aug 17 17:21:16.181: H245 MSC OUTGOING PDU ::=
```

```
value MultimediaSystemControlMessage ::= response : openLogicalChannelAck :
```

```
{
```

```
forwardLogicalChannelNumber 258
```

```
forwardMultiplexAckParameters h2250LogicalChannelAckParameters :
```

```
{
```

```
mediaChannel unicastAddress : ipAddress :
```

```
{
```

```
network '0E32C90B'H
```

```
tsapIdentifier 18490
```

```
}
```

```
mediaControlChannel unicastAddress : ipAddress :
```

```
{
```

```
network '0E32C90B'H
```

```
tsapIdentifier 18491
```

```
}
```

```
flowControlToZero FALSE
```

```
}
```

```
}
```

[GW riceve l'ACK OLC da CVP. CVP fornisce l'indirizzo IP del gateway VXML per la connessione RTP. È stata stabilita una connessione RTP tra GW in entrata e VXML GW](#)

```
*Aug 17 17:21:16.185: H245 MSC INCOMING PDU ::=
```

```
value MultimediaSystemControlMessage ::= response : openLogicalChannelAck :
```

```
{
```

```
forwardLogicalChannelNumber 2
```

```
forwardMultiplexAckParameters h2250LogicalChannelAckParameters :
```

```

{
  sessionID 1
  mediaChannel unicastAddress : ipAddress :
  {
    network '0E32C90F'H
    tsapIdentifier 21134
  }
  mediaControlChannel unicastAddress : ipAddress :
  {
    network '0E32C90F'H
    tsapIdentifier 21135
  }
}
}

```

[Il gateway rileva la cifra DTMF "1" e la invia al VXML GW tramite eventi di relay DTMF basati su RTP NTE \(RFC 2833\)](#)

```

s=DSP d=VoIP payload 0x65 ssrc 0x1D5E sequence 0x2543 timestamp 0x16EE0
Pt:101 Evt:1 Pkt:03 00 00 <Snd>>>
s=DSP d=VoIP payload 0x65 ssrc 0x1D5E sequence 0x2544 timestamp 0x16EE0
Pt:101 Evt:1 Pkt:03 00 00 <Snd>>>
s=DSP d=VoIP payload 0x65 ssrc 0x1D5E sequence 0x2545 timestamp 0x16EE0
Pt:101 Evt:1 Pkt:03 00 00 <Snd>>>
s=DSP d=VoIP payload 0x65 ssrc 0x1D5E sequence 0x2546 timestamp 0x16EE0
Pt:101 Evt:1 Pkt:03 01 90 <Snd>>>
s=DSP d=VoIP payload 0x65 ssrc 0x1D5E sequence 0x2547 timestamp 0x16EE0
Pt:101 Evt:1 Pkt:03 03 20 <Snd>>>
s=DSP d=VoIP payload 0x65 ssrc 0x1D5E sequence 0x2548 timestamp 0x16EE0
Pt:101 Evt:1 Pkt:83 03 38 <Snd>>>
s=DSP d=VoIP payload 0x65 ssrc 0x1D5E sequence 0x2549 timestamp 0x16EE0
Pt:101 Evt:1 Pkt:83 03 38 <Snd>>>
s=DSP d=VoIP payload 0x65 ssrc 0x1D5E sequence 0x254A timestamp 0x16EE0
Pt:101 Evt:1 Pkt:83 03 38 <Snd>>>

```

[Ora, CVP reindirizza la chiamata al telefono IP dell'agente che ha risposto alla chiamata. GW riceve TCS vuoti](#)

*Aug 17 17:22:05.349: H245 MSC INCOMING PDU ::=

```
value MultimediaSystemControlMessage ::= request : terminalCapabilitySet :  
  
  {  
  
    sequenceNumber 4  
  
    protocolIdentifier { 0 0 8 245 0 11 }  
  
  }
```

[GW in ingresso riceve TCS e MSD da CVP. Questo TCS fornisce informazioni sulle capacità terminali del telefono IP](#)

*Aug 17 17:22:09.569: H245 MSC INCOMING PDU ::=

```
value MultimediaSystemControlMessage ::= request : terminalCapabilitySet :  
  
  {  
  
    sequenceNumber 5  
  
    protocolIdentifier { 0 0 8 245 0 11 }  
  
    multiplexCapability h2250Capability :  
  
    {  
  
      maximumAudioDelayJitter 60  
  
      receiveMultipointCapability  
  
      {  
  
        multicastCapability FALSE  
  
        multiUniCastConference FALSE  
  
        mediaDistributionCapability  
  
        {  
  
          {  
  
            centralizedControl FALSE  
  
            distributedControl FALSE  
  
            centralizedAudio FALSE
```



```
        distributedAudio FALSE
        centralizedVideo FALSE
        distributedVideo FALSE
    }
}
}
transmitMultipointCapability
{
    multicastCapability FALSE
    multiUniCastConference FALSE
    mediaDistributionCapability
    {
        {
            centralizedControl FALSE
            distributedControl FALSE
            centralizedAudio FALSE
            distributedAudio FALSE
            centralizedVideo FALSE
            distributedVideo FALSE
        }
    }
}
receiveAndTransmitMultipointCapability
{
    multicastCapability FALSE
    multiUniCastConference FALSE
    mediaDistributionCapability
    {
        {
            centralizedControl FALSE
```

```
distributedControl FALSE

centralizedAudio FALSE

distributedAudio FALSE

centralizedVideo FALSE

distributedVideo FALSE

}

}

}

mcCapability

{

centralizedConferenceMC FALSE

decentralizedConferenceMC FALSE

}

rtcpVideoControlCapability FALSE

mediaPacketizationCapability

{

h261aVideoPacketization FALSE

}

logicalChannelSwitchingCapability FALSE

t120DynamicPortCapability FALSE

}

capabilityTable

{

{

capabilityTableEntryNumber 1

capability receiveAudioCapability : g711Ulaw64k : 40

},

{

capabilityTableEntryNumber 2

capability receiveAndTransmitUserInputCapability : dtmf : NULL

},

}
```

```
{
  capabilityTableEntryNumber 3
  capability receiveAndTransmitUserInputCapability : basicString : NULL
},
{
  capabilityTableEntryNumber 44
  capability receiveAndTransmitUserInputCapability : hookflash : NULL
}
}
capabilityDescriptors
{
  {
    capabilityDescriptorNumber 0
    simultaneousCapabilities
    {
      {
        1
      },
      {
        2,
        3
      },
      {
        44
      }
    }
  }
}
```

```
}
```

```
*Aug 17 17:22:09.589: H245 MSC INCOMING PDU ::=
```

```
value MultimediaSystemControlMessage ::= request : masterSlaveDetermination :
```

```
{
```

```
terminalType 50
```

```
statusDeterminationNumber 767617
```

```
}
```

[GW in ingresso riceve OLC dal CVP. CVP fornisce l'indirizzo IP di CallManager per la connessione RTCP](#)

```
*Aug 17 17:22:09.597: H245 MSC INCOMING PDU ::=
```

```
value MultimediaSystemControlMessage ::= request : openLogicalChannel :
```

```
{
```

```
forwardLogicalChannelNumber 259
```

```
forwardLogicalChannelParameters
```

```
{
```

```
dataType audioData : g711Ulaw64k : 20
```

```
multiplexParameters h2250LogicalChannelParameters :
```

```
{
```

```
sessionID 1
```

```
mediaControlChannel unicastAddress : ipAddress :
```

```
{
```

```
network 'AC126E54'H
```

```
tsapIdentifier 4001
```

```
}
```

```
}
```

```
}
```

```
}
```

[GW invia la risposta ACK OLC al CVP](#)

*Aug 17 17:22:09.613: H245 MSC OUTGOING PDU ::=

value MultimediaSystemControlMessage ::= response : openLogicalChannelAck :

```
{
  forwardLogicalChannelNumber 259
  forwardMultiplexAckParameters h2250LogicalChannelAckParameters :
  {
    mediaChannel unicastAddress : ipAddress :
    {
      network '0E32C90B'H
      tsapIdentifier 18490
    }
    mediaControlChannel unicastAddress : ipAddress :
    {
      network '0E32C90B'H
      tsapIdentifier 18491
    }
    flowControlToZero FALSE
  }
}
```

[GW riceve l'ACK OLC da CVP. CVP fornisce l'indirizzo IP del telefono IP dell'agente per la connessione RTP. È stata stabilita una connessione RTP tra il GW in entrata e il telefono IP](#)

*Aug 17 17:22:09.609: H245 MSC OUTGOING PDU ::=

value MultimediaSystemControlMessage ::= request : openLogicalChannel :

```
{
  forwardLogicalChannelNumber 3
  forwardLogicalChannelParameters
  {
    dataType audioData : g711Ulaw64k : 20
    multiplexParameters h2250LogicalChannelParameters :
    {
```

```
sessionID 1

mediaControlChannel unicastAddress : ipAddress :

{

    network '0E32C90B'H

    tsapIdentifier 18491

}

silenceSuppression FALSE

}

}

}
```

*Aug 17 17:22:09.633: H245 MSC INCOMING PDU ::=

```
value MultimediaSystemControlMessage ::= response : openLogicalChannelAck :

{

    forwardLogicalChannelNumber 3

    forwardMultiplexAckParameters h2250LogicalChannelAckParameters :

    {

        sessionID 1

        mediaChannel unicastAddress : ipAddress :

        {

            network '0E32CA1A'H

            tsapIdentifier 17156

        }

        mediaControlChannel unicastAddress : ipAddress :

        {

            network '0E32CA1A'H

            tsapIdentifier 17157

        }

    }

}

}
```

Al termine della conversazione con l'agente, il chiamante PSTN interrompe la chiamata. GW in

[entrata riceve la disconnessione ISDN dalla PSTN](#)

*Aug 17 17:22:56.329: ISDN Se1/0/0:23 Q931: RX <- DISCONNECT pd = 8 callref = 0x0088

Cause i = 0x8290 - Normal call clearing

*Aug 17 17:22:56.329: %ISDN-6-DISCONNECT: Interface Serial1/0/0:0 disconnected from 9999 , call lasted 100 seconds

*Aug 17 17:22:56.333: ISDN Se1/0/0:23 Q931: TX -> RELEASE pd = 8 callref = 0x8088

*Aug 17 17:22:56.333: //228/182F2991800A/CCAPI/cc_api_call_disconnected:

Cause Value=16, Interface=0x46964DF8, Call Id=228

*Aug 17 17:22:56.333: //228/182F2991800A/CCAPI/cc_api_call_disconnected:

Call Entry(Responded=TRUE, Cause Value=16, Retry Count=0)

[Il GW in ingresso termina la chiamata H323 sul segmento IP inviando un messaggio H225 Release Complete al CVP](#)

*Aug 17 17:22:56.337: H225.0 OUTGOING PDU ::=

value H323_UserInformation ::=

```
{
  h323-uu-pdu
  {
    h323-message-body releaseComplete :
    {
      protocolIdentifier { 0 0 8 2250 0 4 }
      callIdentifier
      {
        guid '182FC5B94C1D11DC8298DF9092AE2C6A'H
      }
    }
  }
  h245Tunneling FALSE
  nonStandardControl
  {
    {
```

```

nonStandardIdentifier h221NonStandard :
{
    t35CountryCode 181
    t35Extension 0
    manufacturerCode 18
}
data '6001020001082C080282901C269E810003677464...'H
}
}
tunnelledSignallingMessage
{
    tunnelledProtocolID
    {
        id tunnelledProtocolAlternateID :
        {
            protocolType "gtd"
        }
    }
    messageContent
    {
        '52454C2C0D0A50524E2C6973646E2A2C2C4E492A...'H
    }
    tunnellingRequired NULL
}
}
}

```

[GW invia la richiesta di disinnesto \(DRQ\) al Gatekeeper](#)

*Aug 17 17:22:56.341: RAS OUTGOING PDU ::=

value RasMessage ::= disengageRequest :

```
{
```



```
requestSeqNum 15295

endpointIdentifier {"84B3CC1C00000004"}

conferenceID '182F29914C1D11DC800A0017E0ABA838'H

callReferenceValue 67

disengageReason normalDrop : NULL

nonStandardData

{

  nonStandardIdentifier h221NonStandard :

  {

    t35CountryCode 181

    t35Extension 0

    manufacturerCode 18

  }

  data '40001A52454C2C0D0A50524E2C6973646E2A2C2C...'H

}

callIdentifier

{

  guid '182FC5B94C1D11DC8298DF9092AE2C6A'H

}

answeredCall FALSE

usageInformation

{

  nonStandardUsageFields

  {

    {

      nonStandardIdentifier h221NonStandard :

      {

        t35CountryCode 181

        t35Extension 0

        manufacturerCode 18

      }

    }

  }

}
```

```
        data '4800'H
    }
}
connectTime 1187371275
endTime 1187371375
}
terminationCause releaseCompleteCauseIE : '08028090'H
}
```

La connessione H245 tra GW e CVP si chiude dopo lo scambio dei comandi CLC ed EndSession

*Aug 17 17:22:56.357: H245 MSC INCOMING PDU ::=

```
value MultimediaSystemControlMessage ::= request : closeLogicalChannel :
{
    forwardLogicalChannelNumber 259
    source user : NULL
    reason unknown : NULL
}
```

*Aug 17 17:22:56.357: h245_decode_one_pdu: H245ASNDecodePdu rc = 0, bytesLeftToDecode = 0

*Aug 17 17:22:56.357: h245_decode_one_pdu: Read Pkt body: more_pdus:0 rc:0 asn_rc:0

*Aug 17 17:22:56.357: H245 MSC OUTGOING PDU ::=

```
value MultimediaSystemControlMessage ::= response : closeLogicalChannelAck :
{
    forwardLogicalChannelNumber 259
}
```

*Aug 17 17:22:56.357: H245 MSC INCOMING PDU ::=

```
value MultimediaSystemControlMessage ::= command : endSessionCommand : disconnect : NULL
```

```
*Aug 17 17:22:56.357: h245_decode_one_pdu: H245ASNDecodePdu rc = 0, bytesLeftToDecode = 0
```

```
*Aug 17 17:22:56.357: h245_decode_one_pdu: Read Pkt body: more_pdus:0 rc:0 asn_rc:0
```

```
*Aug 17 17:22:56.357: H245 MSC OUTGOING PDU ::=
```

```
value MultimediaSystemControlMessage ::= command : endSessionCommand : disconnect : NULL
```

[Informazioni correlate](#)

- [Supporto alla tecnologia vocale](#)
- [Supporto ai prodotti voce e Unified Communications](#)
- [Risoluzione dei problemi di Cisco IP Telephony](#)
- [Documentazione e supporto tecnico – Cisco Systems](#)