

Contenido

[Introducción](#)

[prerrequisitos](#)

[Requisitos](#)

[Componentes Utilizados](#)

[Convenciones](#)

[Configurar](#)

[Diagrama de la red](#)

[Configuraciones](#)

[Verificación](#)

[Troubleshooting](#)

[Ejemplo de resultado del comando debug](#)

[Devolución de llamada GSM mediante el uso de V.110](#)

[Devolución de llamada del módem mediante el uso de V.110](#)

[Devolución de llamada de ISDN mediante V.110](#)

[Información Relacionada](#)

[Introducción](#)

Este documento ofrece un ejemplo de configuración de las llamadas entrantes de usuarios remotos que se realizan por uno de los siguientes métodos. Para cada caso, la devolución de llamada se realiza utilizando una llamada V.110.

- Conexión de usuarios 3640 a través de GSM y solicitud de devolución de llamada.
- Usuarios que conectan 3640 a través de un módem y solicitan la devolución de llamada.
- Usuarios que conecten 3640 vía ISDN (datos) y soliciten devolución de llamada.

Nota: El Authentication, Authorization, and Accounting (AAA) se configura en el router por abandono. Usted debe también crear a un usuario para iniciar sesión.

En este ejemplo, también hemos fijado la autenticación del Point-to-Point Protocol (PPP) para el callin y el reclamo. Hemos cambiado el script para configurar el módem para V.110 todo el tiempo, y para permitir que los usuarios elijan su método (módem o GS). Dependiendo del método elegido, los usuarios deben:

- utilice ZDTxxx en el número de devolución de llamada (para el módem).
- use DIxxxx en el número de retorno de llamada (para GSM).

[prerrequisitos](#)

[Requisitos](#)

No hay requisitos específicos para este documento.

Componentes Utilizados

La información que contiene este documento se basa en las siguientes versiones de software y hardware.

- ¿La característica de devolución de llamada de V.110 está disponible en el IOS de Rosa??
Software Release 12.2(5.2)T y Posterior.
- Software del módem versión 2.7.3.0.

La información que contiene este documento se creó a partir de los dispositivos en un ambiente de laboratorio específico. Todos los dispositivos que se utilizan en este documento se pusieron en funcionamiento con una configuración verificada (predeterminada). Si la red está funcionando, asegúrese de haber comprendido el impacto que puede tener cualquier comando.

Convenciones

Para obtener más información sobre las convenciones del documento, consulte [Convenciones de Consejos Técnicos de Cisco](#).

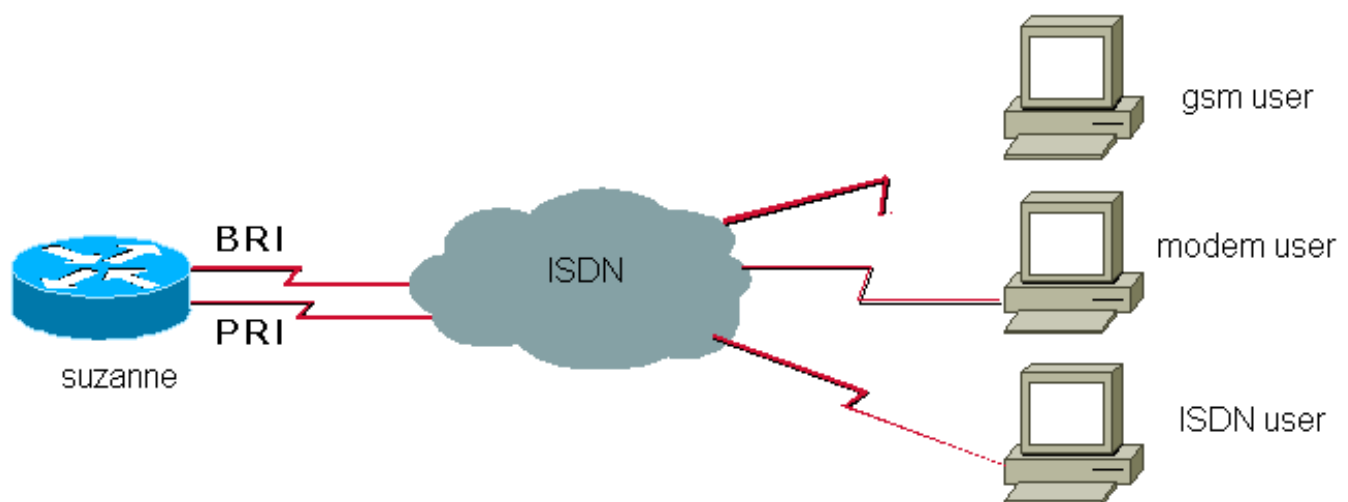
Configurar

En esta sección encontrará la información para configurar las funciones descritas en este documento.

Nota: Para obtener información adicional sobre los comandos que se utilizan en este documento, use la Command Lookup Tool (solo para clientes [registrados](#)).

Diagrama de la red

Este documento utiliza la configuración de red que se muestra en el siguiente diagrama.



Configuraciones

Este documento usa esta configuración:

- Susana

Susana

```
suzanne#show running-config! version 12.2 service
internal!hostname suzanne!aaa new-model!aaa
authentication login default localaaa authentication ppp
default localaaa authorization network default local aaa
session-id common !username ww password 0 username
alainisdn password 0 username alaingsm callback-
dialstring "" password 0username alainmod callback-
dialstring "" password 0 !modem country mica belgium !
isdn switch-type primary-net5isdn voice-call-failure
0chat-script offhook "" "ATH1" OKchat-script callback
ABORT ERROR ABORT BUSY "" "AT&F" OK "ATX3DT \T" TIMEOUT
90 \cchat-script callback1analog ABORT ERROR ABORT BUSY
"" "AT&F" OK "ATDT \T" TIMEOUT 90 CONNECT \cchat-script
callback2gsm ABORT ERROR ABORT BUSY "" "AT&F" OK
"ATS29=8" OK "AT \T" TIMEOUT 90 CONNECT \c!controller E1
1/0pri-group timeslots 1-31!interface Ethernet0/0ip
address 172.17.243.105 255.255.255.0!interface
Serial11/0:15description E1 0451/39920no ip
addressencapsulation pppdialer rotary-group 1isdn
switch-type primary-net5isdn incoming-voice modemisdn
outgoing-voice info-transfer-capability 3.1kHz-audio
cdp enableppp authentication chap callin !interface
BRI3/1description belgacom 027202094no ip
addressencapsulation pppisdn switch-type basic-net3isdn
incoming-voice modemno cdp enable! interface Group-
Async1ip unnumbered Dialer1encapsulation pppdialer in-
banddialer callback-securedialer-group 1asyn dynamic
routingasyn mode interactivepeer default ip address
pool poolppp callback acceptppp authentication papgroup-
range 65 94!interface Dialer1description Dial-In Userip
address 172.31.1.1 255.255.0.0ip helper-address
90.100.48.38ip helper-address 90.100.60.202encapsulation
pppdialer in-banddialer callback-securedialer map ip
172.31.1.2 name alainisdn class callback 6136peer
default ip address pool poolno cdp enableppp callback
acceptppp authentication chap callin !map-class dialer
callbackdialer callback-server username dialer-list 1
protocol ip permit!line con 0exec-timeout 0
0passwordline 65 94script dialer callback2gsmscript
callback callback2gsmmodem InOuttransport input
telnettransport output pad v120 lapb-ta telnet rlogin
udptnautoselect during-loginautoselect pppstopbits
1flowcontrol hardwareline aux 0passwordline vty 0 4exec-
timeout 0 0password !end
```

Verificación

En esta sección encontrará información que puede utilizar para confirmar que su configuración esté funcionando correctamente.

La herramienta [Output Interpreter](#) (sólo para clientes [registrados](#)) permite utilizar algunos comandos “show” y ver un análisis del resultado de estos comandos.

- ¿muestre la ruta de IP??? visualiza el contenido de la tabla de IP Routing

Troubleshooting

En esta sección encontrará información que puede utilizar para solucionar problemas de configuración.

Nota: Antes de que usted publique los **comandos debug**, refiera a la [información importante en los comandos Debug](#).

- ¿haga el debug del módem? para observar la actividad de línea del módem en un servidor de acceso.
- ¿eventos del debug dialer? visualiza la información de debugging sobre los paquetes recibidos en una interfaz del dialer.
- ¿autenticación PPP del debug? visualiza los mensajes de protocolo de la autenticación, incluyendo los intercambios de paquetes del protocolo challenge authentication (GRIETA) y los intercambios del protocolo password authentication (PAP).
- ¿debug ppp cbcp? los errores del protocolo y las estadísticas de las visualizaciones se asociaron a las negociaciones de la conexión PPP usando el protocolo microsoft callback control (MSCB).
- ¿debug ISDN Q931? información de las visualizaciones sobre la configuración de la llamada y cierre de las conexiones de red ISDN (capa 3) entre el router local (lado del usuario) y la red.
- ¿charla del debug? verifica que esté funcionando el chat script correctamente.
- ¿debug callback? visualiza los eventos de devolución de llamada cuando el router está utilizando un módem y un chat script a la devolución de llamada en un línea de la terminal.

[Ejemplo de resultado del comando debug](#)

[Devolución de llamada GSM mediante el uso de V.110](#)

```
suzanne#01:03:00: ISDN BR3/1: RX <- SETUP pd = 8 callref = 0x2F01:03:00: Sending
Complete01:03:00: Bearer Capability i = 0x9090A301:03:00: Channel ID i = 0x8901:03:00: Calling
Party Number i = 0x21, 0x83, '478681006', Plan:ISDN, Type:National01:03:00: Called Party Number
i = 0xA1, '27202094', Plan:ISDN, Type:National01:03:00: ISDN BR3/1: Event: Received a VOICE call
from 478681006 on B1 at 64 Kb/s01:03:00: ISDN BR3/1: Event: Accepting the call id 0x1901:03:00:
%ISDN-6-LAYER2UP: Layer 2 for Interface BR3/1, TEI 70 changed to up01:03:00: ISDN BR3/1: TX ->
CALL_PROC pd = 8 callref = 0xAF01:03:00: Channel ID i = 0x8901:03:00: ISDN BR3/1: TX -> ALERTING
pd = 8 callref = 0xAF01:03:00: ISDN BR3/1: TX -> CONNECT pd = 8 callref = 0xAF01:03:01: ISDN
BR3/1: RX <- CONNECT_ACK pd = 8 callref = 0x2F01:03:01: Modem 2/12 Mica: configured for Answer
mode, with Null signaling,0x0 tone detection.01:03:01: Modem 2/12 Mica: in modem state
CALL_SETUP01:03:02: Modem 2/12 Mica: in modem state CONNECT01:03:06: Modem 2/12 Mica: in modem
state LINK01:03:07: %ISDN-6-CONNECT: Interface BRI3/1:1 is now connected to 478681006
01:03:15: Modem 2/12 Mica: in modem state TRAINUP01:03:17: Modem 2/12 Mica: in modem state
EC_NEGOTIATING01:03:18: Modem 2/12 Mica: in modem state STEADY01:03:18: Modem 2/12 Mica: CONNECT
at 31200/31200 (Tx/Rx), V34+, LAPM, None01:03:19: TTY77: DSR came up01:03:19: tty77: Modem:
IDLE->(unknown)01:03:19: TTY77: EXEC creation01:03:19: TTY77: set timer type 10, 30
seconds01:03:19: TTY77: Autoselect(2) sample 7E01:03:19: TTY77: Autoselect(2) sample
7EFF01:03:19: TTY77: Autoselect(2) sample 7EFF7D01:03:19: TTY77: Autoselect(2) sample
7EFF7D2301:03:19: TTY77 Autoselect cmd: ppp negotiate01:03:19: TTY77: EXEC creation01:03:19:
TTY77: create timer type 1, 600 seconds01:03:19: TTY77: destroy timer type 101:03:19: TTY77: no
timer type 0 to destroy01:03:19: As77 DDR: Dialer received incoming call from <unknown>01:03:21:
%LINK-3-UPDOWN: Interface Async77, changed state to up01:03:21: As77 DDR: Dialer statechange to
up01:03:21: As77 DDR: Dialer received incoming call from <unknown>01:03:21: As77 PPP: Treating
connection as a callin01:03:21: As77 PPP: Authorization required01:03:22: Modem 2/12 Mica: PPP
escape_map: Tx map = FFFFFFFF, Rx map = 001:03:22: As77 PPP: Authorization required01:03:27:
Modem 2/12 Mica: PPP escape_map: Tx map = A0000, Rx map = 001:03:27: As77 MCB:
Initialize01:03:27: MCB: Flush01:03:27: Modem 2/12 Mica: Bad RX Frame: control = 0xE007, length
```

= 0xD, buffer = 0x3BC6E5401:03:30: As77 PAP: I AUTH-REQ id 2 len 16 from "alaingsm"01:03:30:
As77 PAP: Authenticating peer alaingsm01:03:30: As77 PPP: Sent PAP LOGIN Request to AAA01:03:30:
As77 PPP: Received LOGIN Response from AAA = PASS01:03:30: As77 DDR: Remote name for
alaingsm01:03:30: As77 DDR: Authenticated host alaingsm with no matching dialer map01:03:30:
As77 PAP: O AUTH-ACK id 2 len 501:03:30: As77 MCB: Start01:03:30: As77 MCB: User alaingsm
Callback Number - Client ANY01:03:30: As77 MCB: Newstate 0-INIT -> 2-WAIT_RESPONSE01:03:30: As77
MCB: O Request Id 1 Callback Type Client-Num delay 001:03:32: As77 MCB: Timeout in state
WAIT_RESPONSE sending new Request 201:03:32: As77 MCB: O Request Id 2 Callback Type Client-Num
delay 001:03:34: As77 MCB: Timeout in state WAIT_RESPONSE sending new Request 301:03:34: As77
MCB: O Request Id 3 Callback Type Client-Num delay 001:03:35: Async77 PPP: I MCB Response(2) id
1 len 2201:03:35: Async77 MCB: I 2 1 0 16 2 12 F 1 44 49 30 30 34 37 38 36 38 31 30 30 36 0
01:03:35: As77 MCB: Received response01:03:35: As77 MCB: Resp ignored. ID Expected 3, got id
101:03:36: As77 MCB: Timeout in state WAIT_RESPONSE sending new Request 401:03:36: As77 MCB: O
Request Id 4 Callback Type Client-Num delay 001:03:36: Async77 PPP: I MCB Response(2) id 4 len
2201:03:36: Async77 MCB: I 2 4 0 16 2 12 F 1 44 49 30 30 34 37 38 36 38 31 30 30 36 0 01:03:36:
As77 MCB: Received response *!--- You can see here that "DI00478681006" was entered at the user
PC.* 01:03:36: As77 MCB: Response CBK-Client-Num 2 18 15, addr 1-DI0047868100601:03:36: As77 MCB:
O Ack Id 5 Callback Type Client-Num delay 1501:03:36: As77 MCB: Negotiated MCB with
peer01:03:36: As77 MCB: Newstate 2-WAIT_RESPONSE -> 3-WAIT_TERMINATE01:03:37: As77 MCB: Peer
terminating the link01:03:37: As77 MCB: Newstate 3-WAIT_TERMINATE -> 5-WAIT_LINKDOWN01:03:37:
As77 MCB: Link terminated by peer, Callback Needed01:03:37: As77 MCB: Newstate 5-WAIT_LINKDOWN -
> 6-CALLING01:03:37: As77 MCB: Initiate Callback for ^->o`iB@ at DI00478681006 using Async
DDR01:03:37: As77 DDR: PPP callback Callback server starting to alaingsm DI0047868100601:03:37:
As77 MCB: Dialer callback started *!--- Call is disconnected.*01:03:38: Modem 2/12 Mica: in modem
state SS_RETRAINING01:03:38: ISDN BR3/1: RX <- DISCONNECT pd = 8 callref = 0x2F01:03:38: Cause i
= 0x8090 - Normal call clearing01:03:38: Progress Ind i = 0x8088 - In-band info or appropriate
now available 01:03:38: %ISDN-6-DISCONNECT: Interface BRI3/1:1 disconnected from 478681006, call
lasted 37 seconds01:03:38: ISDN BR3/1: TX -> RELEASE pd = 8 callref = 0xAF01:03:38: Cause i =
0x8090 - Normal call clearing01:03:38: Modem 2/12 Mica: in modem state TERMINATING01:03:38: ISDN
BR3/1: RX <- RELEASE_COMP pd = 8 callref = 0x2F01:03:39: TTY77: Async Int reset: Dropping
DTR01:03:39: Modem 2/12 Mica: PPP escape_map: Tx map = FFFFFFFF, Rx map = 001:03:39: As77 PPP:
Authorization required01:03:40: Modem 2/12 Mica: in modem state IDLE01:03:40: Modem 2/12 Mica:
DISCONNECT after 00:00:38, due to reason (0xDF00) Host Disconnect.01:03:40: TTY77: DSR was
dropped01:03:40: tty77: Modem: READY->(unknown)01:03:41: TTY77: dropping DTR, hanging
up01:03:41: tty77: Modem: HANGUP->(unknown)01:03:41: %LINK-5-CHANGED: Interface Async77, changed
state to reset01:03:42: TTY77: cleanup pending. Delaying DTR01:03:43: TTY77: cleanup pending.
Delaying DTR01:03:44: TTY77: cleanup pending. Delaying DTR01:03:44: TTY77: no timer type 0 to
destroy01:03:44: TTY77: no timer type 1 to destroy01:03:44: TTY77: no timer type 3 to
destroy01:03:44: TTY77: no timer type 4 to destroy01:03:44: TTY77: no timer type 2 to
destroy01:03:44: Async77: allowing modem_process to continue hangup01:03:45: TTY77: restoring
DTR01:03:46: %LINK-3-UPDOWN: Interface Async77, changed state to down01:03:53: %ISDN-6-
LAYER2DOWN: Layer 2 for Interface BR3/1, TEI 70 changed to down!*!--- Callback is
started.*01:03:56: As77 DDR: re-enable timeout01:03:56: DDR: callback triggered by
dialer_timers01:03:56: As77 DDR: beginning callback to alaingsm DI0047868100601:03:56: As77 DDR:
Attempting to dial DI0047868100601:03:56: CHAT77: Attempting async line dialer script01:03:56:
CHAT77: Dialing using Modem script: callback2gsm & System script: none01:03:56: CHAT77: process
started01:03:56: CHAT77: Asserting DTR01:03:56: CHAT77: Chat script callback2gsm
started01:03:56: CHAT77: Sending string: AT&F01:03:56: CHAT77: Expecting string: OK01:03:56:
CHAT77: Completed match for expect: OK01:03:56: CHAT77: Sending string: AT\$29=801:03:56: CHAT77:
Expecting string: OK 01:03:56: CHAT77: Completed match for expect: OK!*!--- We send
DI00478681006*01:03:56: CHAT77: Sending string: AT \T<DI00478681006>01:03:56: CHAT77: Expecting
string: CONNECT01:03:56: Modem 2/12 Mica: configured for Originate mode, with Null signaling,
0x1 tone detection.01:03:56: Modem 2/12 Mica: received dialstring 0047868100601:03:56: ISDN
Se1/0:15: TX -> SETUP pd = 8 callref = 0x000E01:03:56: Bearer Capability i =
0x8890214846BB01:03:56: Channel ID i = 0xA9839F01:03:56: Called Party Number i = 0x81,
'00478681006', Plan:ISDN, Type:Unknown01:03:56: Low Layer Compat i = 0x8890214846BB01:03:56:
ISDN Se1/0:15: RX <- CALL_PROC pd = 8 callref = 0x800E01:03:56: Channel ID i = 0xA9839F01:03:56:
Modem 2/12 Mica: in modem state CALL_SETUP01:04:02: ISDN Se1/0:15: RX <- ALERTING pd = 8 callref
= 0x800E01:04:03: ISDN Se1/0:15: RX <- CONNECT pd = 8 callref = 0x800E01:04:03: ISDN Se1/0:15:
TX -> CONNECT_ACK pd = 8 callref = 0x000E01:04:03: Modem 2/12 Mica: in modem state
CONNECT01:04:03: Modem 2/12 Mica: in modem state LINK01:04:03: Modem 2/12 Mica: in modem state
TRAINUP01:04:03: Modem 2/12 Mica: in modem state EC_NEGOTIATING01:04:03: Modem 2/12 Mica: in
modem state STEADY01:04:03: CHAT77: Completed match for expect: CONNECT01:04:03: CHAT77: Sending
string: \c01:04:03: CHAT77: Chat script callback2gsm finished, status = Success01:04:03: TTY77:

```
no timer type 1 to destroy01:04:03: TTY77: no timer type 0 to destroy01:04:03: Modem 2/12 Mica:
CONNECT at 9600/9600 (Tx/Rx), V110, V.110, None01:04:04: As77 PPP: Treating connection as a
callout01:04:04: Modem 2/12 Mica: PPP escape_map: Tx map = FFFFFFFF, Rx map = 001:04:04: As77
PPP: Authorization required01:04:04: %LINK-3-UPDOWN: Interface Async77, changed state to
up01:04:04: As77 DDR: Dialer statechange to up01:04:04: As77 DDR: Copying MS callback dialstring
DI00478681006 to ddb01:04:04: DDR: Freeing callback to alaingsm DI0047868100601:04:04: As77 DDR:
Dialer call has been placed01:04:08: Modem 2/12 Mica: PPP escape_map: Tx map = A0000, Rx map =
001:04:08: As77 MCB: Initialize01:04:08: Modem 2/12 Mica: Bad RX Frame: control = 0xE007, length
= 0xD, buffer = 0x3BC6E5401:04:09: %ISDN-6-CONNECT: Interface Serial1/0:30 is now connected to
00478681006 01:04:11: As77 PAP: I AUTH-REQ id 2 len 16 from "alaingsm"01:04:11: As77 PAP:
Authenticating peer alaingsm01:04:11: As77 PPP: Sent PAP LOGIN Request to AAA01:04:11: As77 PPP:
Received LOGIN Response from AAA = PASS01:04:11: As77 DDR: Remote name for alaingsm01:04:11:
As77 DDR: Authenticated host alaingsm with no matching dialer map01:04:11: As77 PAP: O AUTH-ACK
id 2 len 501:04:13: As77 DDR: dialer protocol up suzanne#show ip routeCodes: C - connected, S -
static, I - IGRP, R - RIP, M - mobile, B - BGPD - EIGRP, EX - EIGRP external, O - OSPF, IA -
OSPF inter area N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2 E1 - OSPF
external type 1, E2 - OSPF external type 2, E - EGPi - IS-IS, L1 - IS-IS level-1, L2 - IS-IS
level-2, ia - IS-IS inter area* - candidate default, U - per-user static route, o - ODRP -
periodic downloaded static route Gateway of last resort is 172.17.243.1 to network
0.0.0.0172.17.0.0/24 is subnetted, 1 subnetsC 172.17.243.0 is directly connected,
Ethernet0/0172.31.0.0/16 is variably subnetted, 2 subnets, 2 masksC 172.31.1.28/32 is directly
connected, Async77C 172.31.0.0/16 is directly connected, Dialer1S* 0.0.0.0/0 [1/0] via
172.17.243.1 suzanne#ping 172.31.1.28Type escape sequence to abort.Sending 5, 100-byte ICMP
Echos to 172.31.1.28, timeout is 2 seconds:!!!!Success rate is 100 percent (5/5), round-trip
min/avg/max = 784/858/880 ms suzanne#01:04:49: ISDN Se1/0:15: RX <- DISCONNECT pd = 8 callref
= 0x800E01:04:49: Cause i = 0x8090 - Normal call clearing01:04:49: %ISDN-6-DISCONNECT: Interface
Serial1/0:30 disconnected from 00478681006, call lasted 46 seconds01:04:49: ISDN Se1/0:15: TX ->
RELEASE pd = 8 callref = 0x000E01:04:49: Modem 2/12 Mica: in modem state TERMINATING01:04:49:
ISDN Se1/0:15: RX <- RELEASE_COMP pd = 8 callref = 0x800E01:04:49: Modem 2/12 Mica: in modem
state IDLE01:04:49: Modem 2/12 Mica: DISCONNECT after 00:00:46, due to reason (0xDF00) Host
Disconnect.01:04:50: TTY77: DSR was dropped01:04:50: tty77: Modem: READY->(unknown)01:04:51:
TTY77: Async Int reset: Dropping DTR01:04:51: Modem 2/12 Mica: PPP escape_map: Tx map =
FFFFFFF, Rx map = 001:04:51: As77 PPP: Authorization required01:04:51: TTY77: dropping DTR,
hanging up01:04:51: tty77: Modem: HANGUP->(unknown)01:04:52: TTY77: cleanup pending. Delaying
DTR01:04:53: %LINK-5-CHANGED: Interface Async77, changed state to reset01:04:53: TTY77: cleanup
pending. Delaying DTR01:04:54: TTY77: cleanup pending. Delaying DTR01:04:55: TTY77: cleanup
pending. Delaying DTR01:04:56: TTY77: no timer type 0 to destroy01:04:56: TTY77: no timer type 1
to destroy01:04:56: TTY77: no timer type 3 to destroy01:04:56: TTY77: no timer type 4 to
destroy01:04:56: TTY77: no timer type 2 to destroy01:04:56: Async77: allowing modem_process to
continue hangup01:04:56: TTY77: restoring DTR01:04:58: %LINK-3-UPDOWN: Interface Async77,
changed state to down01:05:08: As77 DDR: re-enable timeout
```

[Devolución de llamada del módem mediante el uso de V.110](#)

```
!--- Modem callback using default of MICA (modem dialing US robotics).suzanne#01:06:21: ISDN
Se1/0:15: RX <- SETUP pd = 8 callref = 0x6D7301:06:21: Sending Complete01:06:21: Bearer
Capability i = 0x9090A301:06:21: Channel ID i = 0xA1838701:06:21: Progress Ind i = 0x8183 -
Origination address is non-ISDN 01:06:21: Calling Party Number i = 0xA1, '6020', Plan:ISDN,
Type:National01:06:21: Called Party Number i = 0x81, '214', Plan:ISDN, Type:Unknown01:06:21:
ISDN Se1/0:15: TX -> CALL_PROC pd = 8 callref = 0xED7301:06:21: Channel ID i = 0xA9838701:06:21:
ISDN Se1/0:15: TX -> ALERTING pd = 8 callref = 0xED7301:06:21: ISDN Se1/0:15: TX -> CONNECT pd =
8 callref = 0xED7301:06:21: ISDN Se1/0:15: RX <- CONNECT_ACK pd = 8 callref = 0x6D7301:06:21:
ISDN Se1/0:15: CALL_PROGRESS: CALL_CONNECTED call id 0x1A, bchan 6, dsl 001:06:21: Modem 2/13
Mica: configured for Answer mode, with Null signaling, 0x0 tone detection.01:06:21: Modem 2/13
Mica: in modem state CALL_SETUP01:06:22: Modem 2/13 Mica: in modem state CONNECT01:06:26: Modem
2/13 Mica: in modem state LINK01:06:27: %ISDN-6-CONNECT: Interface Serial1/0:6 is now connected
to 6020 01:06:34: Modem 2/13 Mica: in modem state TRAINUP01:06:36: Modem 2/13 Mica: in modem
state EC_NEGOTIATING01:06:36: Modem 2/13 Mica: in modem state STEADY01:06:36: Modem 2/13 Mica:
CONNECT at 9600/9600 (Tx/Rx), V34+, LAPM, None01:06:37: TTY78: DSR came up01:06:37: tty78:
Modem: IDLE->(unknown)01:06:37: TTY78: EXEC creation01:06:37: TTY78: set timer type 10, 30
seconds01:06:40: TTY78: Autoselect(2) sample 7E01:06:40: TTY78: Autoselect(2) sample
7EFF01:06:40: TTY78: Autoselect(2) sample 7EFF7D01:06:40: TTY78: Autoselect(2) sample
7EFF7D2301:06:40: TTY78 Autoselect cmd: ppp negotiate01:06:40: TTY78: EXEC creation01:06:40:
TTY78: create timer type 1, 600 seconds01:06:40: TTY78: destroy timer type 101:06:40: TTY78: no
```

timer type 0 to destroy01:06:40: As78 DDR: Dialer received incoming call from <unknown>01:06:42: %LINK-3-UPDOWN: Interface Async78, changed state to up01:06:42: As78 DDR: Dialer statechange to up01:06:42: As78 DDR: Dialer received incoming call from <unknown>01:06:42: As78 PPP: Treating connection as a callin01:06:42: As78 PPP: Authorization required01:06:43: Modem 2/13 Mica: PPP escape_map: Tx map = FFFFFFFF, Rx map = 001:06:43: As78 PPP: Authorization required01:06:47: Modem 2/13 Mica: PPP escape_map: Tx map = A0000, Rx map = 001:06:47: As78 MCB: Initialize 01:06:47: MCB: Flush01:06:47: Modem 2/13 Mica: Bad RX Frame: control = 0xE007, length = 0xE, buffer = 0x3BC901401:06:50: As78 PAP: I AUTH-REQ id 2 len 16 from "alainmod"01:06:50: As78 PAP: Authenticating peer alainmod01:06:50: As78 PPP: Sent PAP LOGIN Request to AAA01:06:50: As78 PPP: Received LOGIN Response from AAA = PASS01:06:50: As78 DDR: Remote name for alainmod01:06:50: As78 DDR: Authenticated host alainmod with no matching dialer map01:06:50: As78 PAP: O AUTH-ACK id 2 len 501:06:50: As78 MCB: Start01:06:50: As78 MCB: User alainmod Callback Number - Client ANY01:06:50: As78 MCB: Newstate 0-INIT -> 2-WAIT_RESPONSE01:06:50: As78 MCB: O Request Id 1 Callback Type Client-Num delay 001:06:52: As78 MCB: Timeout in state WAIT_RESPONSE sending new Request 201:06:52: As78 MCB: O Request Id 2 Callback Type Client-Num delay 001:06:54: As78 MCB: Timeout in state WAIT_RESPONSE sending new Request 301:06:54: As78 MCB: O Request Id 3 Callback Type Client-Num delay 001:06:54: Async78 PPP: I MCB Response(2) id 1 len 1701:06:54: Async78 MCB: I 2 1 0 11 2 D F 1 5A 44 54 20 36 30 32 30 0 01:06:54: As78 MCB: Received response01:06:54: As78 MCB: Resp ignored. ID Expected 3, got id 101:06:56: As78 MCB: Timeout in state WAIT_RESPONSE sending new Request 401:06:56: As78 MCB: O Request Id 4 Callback Type Client-Num delay 001:06:56: Async78 PPP: I MCB Response(2) id 4 len 1701:06:56: Async78 MCB: I 2 4 0 11 2 D F 1 5A 44 54 20 36 30 32 30 0 01:06:56: As78 MCB: Received response01:06:56: As78 MCB: Response CBK-Client-Num 2 13 15, addr 1-ZDT 602001:06:56: As78 MCB: O Ack Id 5 Callback Type Client-Num delay 1501:06:56: As78 MCB: Negotiated MCB with peer01:06:56: As78 MCB: Newstate 2-WAIT_RESPONSE -> 3-WAIT_TERMINATE01:06:56: As78 MCB: Peer terminating the link01:06:56: As78 MCB: Newstate 3-WAIT_TERMINATE -> 5-WAIT_LINKDOWN01:06:56: As78 MCB: Link terminated by peer, Callback Needed01:06:56: As78 MCB: Newstate 5-WAIT_LINKDOWN -> 6-CALLING01:06:56: As78 MCB: Initiate Callback for ^->`ib@ at ZDT 6020 using Async DDR01:06:56: As78 DDR: PPP callback Callback server starting to alainmod ZDT 602001:06:56: As78 MCB: Dialer callback started01:06:57: Modem 2/13 Mica: in modem state TERMINATING01:06:57: Modem 2/13 Mica: in modem state IDLE01:06:57: %ISDN-6-DISCONNECT: Interface Serial1/0:6 disconnected from 6020, call lasted 36 seconds01:06:57: ISDN Se1/0:15: TX -> DISCONNECT pd = 8 callref = 0xED7301:06:57: Cause i = 0x8090 - Normal call clearing01:06:57: Modem 2/13 Mica: DISCONNECT after 00:00:35, due to reason (0x8220) EC rcvd DISC frame. 01:06:57: TTY78: DSR was dropped01:06:57: tty78: Modem: READY->(unknown)01:06:57: ISDN Se1/0:15: RX <- RELEASE pd = 8 callref = 0x6D7301:06:57: ISDN Se1/0:15: TX -> RELEASE_COMP pd = 8 callref = 0xED7301:06:58: TTY78: dropping DTR, hanging up01:06:58: TTY78: Async Int reset: Dropping DTR01:06:58: tty78: Modem: HANGUP->(unknown)01:06:59: TTY78: cleanup pending. Delaying DTR01:06:59: Modem 2/13 Mica: PPP escape_map: Tx map = FFFFFFFF, Rx map = 001:06:59: As78 PPP: Authorization required01:07:00: %LINK-5-CHANGED: Interface Async78, changed state to reset01:07:00: TTY78: cleanup pending. Delaying DTR01:07:01: TTY78: cleanup pending. Delaying DTR01:07:02: TTY78: cleanup pending. Delaying DTR01:07:03: TTY78: no timer type 0 to destroy01:07:03: TTY78: no timer type 1 to destroy01:07:03: TTY78: no timer type 3 to destroy01:07:03: TTY78: no timer type 4 to destroy01:07:03: TTY78: no timer type 2 to destroy01:07:03: Async78: allowing modem_process to continue hangup01:07:03: TTY78: restoring DTR01:07:05: %LINK-3-UPDOWN: Interface Async78, changed state to down01:07:15: As78 DDR: re-enable timeout!--- Callback start.01:07:15: DDR: callback triggered by dialer_timers01:07:15: As78 DDR: beginning callback to alainmod ZDT 602001:07:15: As78 DDR: Attempting to dial ZDT 602001:07:15: CHAT78: Attempting async line dialer script01:07:15: CHAT78: Dialing using Modem script: callback2gsm & System script: none01:07:15: CHAT78: process started01:07:15: CHAT78: Asserting DTR01:07:15: CHAT78: Chat script callback2gsm started01:07:15: CHAT78: Sending string: AT&F01:07:15: CHAT78: Expecting string: OK01:07:15: CHAT78: Completed match for expect: OK01:07:15: CHAT78: Sending string: AT&S29=801:07:15: CHAT78: Expecting string: OK01:07:15: CHAT78: Completed match for expect: OK !--- The user entered "ZDT 6020". This is what we send:01:07:15: CHAT78: Sending string: AT \T<ZDT 6020> 01:07:15: CHAT78: Expecting string: CONNECT01:07:15: Modem 2/13 Mica: configured for Originate mode, with Null signaling, 0x1 tone detection.01:07:15: Modem 2/13 Mica: received dialstring 602001:07:15: ISDN Se1/0:15: TX -> SETUP pd = 8 callref = 0x000F01:07:15: Bearer Capability i = 0x9090A301:07:15: Channel ID i = 0xA9839F01:07:15: Called Party Number i = 0x81, '6020', Plan:ISDN, Type:Unknown01:07:15: ISDN Se1/0:15: RX <- CALL_PROC pd = 8 callref = 0x800F01:07:15: Channel ID i = 0xA9839F01:07:15: ISDN Se1/0:15: RX <- ALERTING pd = 8 callref = 0x800F01:07:15: Modem 2/13 Mica: in modem state CALL_SETUP01:07:16: Modem 2/13 Mica: Detected Dial tone01:07:17: ISDN Se1/0:15: RX <- CONNECT pd = 8 callref = 0x800F01:07:17: Progress Ind i = 0x8182 - Destination address is non-ISDN 01:07:17: Connected Number i = 0xA13630323001:07:17: ISDN Se1/0:15: TX -> CONNECT_ACK pd = 8 callref = 0x000F01:07:17: Modem 2/13 Mica: in modem state CONNECT01:07:19: Modem 2/13 Mica: in

modem state LINK01:07:23: %ISDN-6-CONNECT: Interface Serial1/0:30 is now connected to 6020
01:07:26: Modem 2/13 Mica: in modem state TRAINUP01:07:28: Modem 2/13 Mica: in modem state
EC_NEGOTIATING01:07:28: Modem 2/13 Mica: in modem state STEADY01:07:28: CHAT78: Completed match
for expect: CONNECT01:07:28: CHAT78: Sending string: \c01:07:28: CHAT78: Chat script
callback2gsm finished, status = Success01:07:28: TTY78: no timer type 1 to destroy01:07:28:
TTY78: no timer type 0 to destroy01:07:28: Modem 2/13 Mica: CONNECT at 33600/31200 (Tx/Rx),
V34+, LAPM, None01:07:28: As78 PPP: Treating connection as a callout01:07:28: Modem 2/13 Mica:
PPP escape_map: Tx map = FFFFFFFF, Rx map = 001:07:28: As78 PPP: Authorization required01:07:28:
%LINK-3-UPDOWN: Interface Async78, changed state to up01:07:28: As78 DDR: Dialer statechange to
up01:07:28: As78 DDR: Copying MS callback dialstring ZDT 6020 to ddb01:07:28: DDR: Freeing
callback to alainmod ZDT 602001:07:28: As78 DDR: Dialer call has been placed01:07:29: Modem 2/13
Mica: PPP escape_map: Tx map = A0000, Rx map = 001:07:29: As78 MCB: Initialize01:07:29: As78
PAP: I AUTH-REQ id 1 len 16 from "alainmod"01:07:29: As78 PAP: Authenticating peer
alainmod01:07:29: As78 PPP: Sent PAP LOGIN Request to AAA01:07:29: As78 PPP: Received LOGIN
Response from AAA = PASS01:07:29: As78 DDR: Remote name for alainmod01:07:29: As78 DDR:
Authenticated host alainmod with no matching dialer map01:07:29: As78 PAP: O AUTH-ACK id 1 len
501:07:29: As78 DDR: dialer protocol up01:07:29: %LINEPROTO-5-UPDOWN: Line protocol on Interface
Async78, changed state to up suzanne#**show ip route**Codes: C - connected, S - static, I - IGRP, R
- RIP, M - mobile, B - BGPD - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area N1 -
OSPF NSSA external type 1, N2 - OSPF NSSA external type 2E1 - OSPF external type 1, E2 - OSPF
external type 2, E - EGPI - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter
area* - candidate default, U - per-user static route, o - ODRP - periodic downloaded static
routeGateway of last resort is 172.17.243.1 to network 0.0.0.0172.17.0.0/24 is subnetted, 1
subnetsC 172.17.243.0 is directly connected, Ethernet0/0172.31.0.0/16 is variably subnetted, 2
subnets, 2 masksC 172.31.1.19/32 is directly connected, Async78C 172.31.0.0/16 is directly
connected, Dialer1S* 0.0.0.0/0 [1/0] via 172.17.243.1 suzanne#**ping 172.31.1.19**Type escape
sequence to abort.Sending 5, 100-byte ICMP Echos to 172.31.1.19, timeout is 2
seconds:!!!!Success rate is 100 percent (5/5), round-trip min/avg/max = 356/372/396 ms
suzanne#01:08:08: Modem 2/13 Mica: in modem state TERMINATING01:08:08: Modem 2/13 Mica: in modem
state IDLE01:08:08: Modem 2/13 Mica: DISCONNECT after 00:00:51, due to reason (0x8220) EC rcvd
DISC frame.01:08:08: %ISDN-6-DISCONNECT: Interface Serial1/0:30 disconnected from 6020, call
lasted 51 seconds01:08:08: ISDN Se1/0:15: TX -> DISCONNECT pd = 8 callref = 0x000F01:08:08:
Cause i = 0x8090 - Normal call clearing01:08:08: ISDN Se1/0:15: RX <- RELEASE pd = 8 callref =
0x800F01:08:08: ISDN Se1/0:15: TX -> RELEASE_COMP pd = 8 callref = 0x000F01:08:09: TTY78: DSR
was dropped01:08:09: tty78: Modem: READY->(unknown)01:08:09: %LINEPROTO-5-UPDOWN: Line protocol
on Interface Async78, changed state to down01:08:10: TTY78: dropping DTR, hanging up01:08:10:
TTY78: Async Int reset: Dropping DTR01:08:10: tty78: Modem: HANGUP->(unknown)01:08:10: Modem
2/13 Mica: PPP escape_map: Tx map = FFFFFFFF, Rx map = 001:08:10: As78 PPP: Authorization
required01:08:11: TTY78: cleanup pending. Delaying DTR01:08:12: %LINK-5-CHANGED: Interface
Async78, changed state to reset01:08:12: TTY78: cleanup pending. Delaying DTR01:08:13: TTY78:
cleanup pending. Delaying DTR01:08:14: TTY78: cleanup pending. Delaying DTR01:08:15: TTY78: no
timer type 0 to destroy01:08:15: TTY78: no timer type 1 to destroy01:08:15: TTY78: no timer type
3 to destroy01:08:15: TTY78: no timer type 4 to destroy01:08:15: TTY78: no timer type 2 to
destroy01:08:15: Async78: allowing modem_process to continue hangup01:08:15: TTY78: restoring
DTR01:08:17: %LINK-3-UPDOWN: Interface Async78, changed state to down01:08:27: As78 DDR: re-
enable timeout

[Devolución de llamada de ISDN mediante V.110](#)

!--- Receive call.suzanne#01:09:00: ISDN Se1/0:15: RX <- SETUP pd = 8 callref = 0x6F2801:09:00:
Sending Complete01:09:00: Bearer Capability i = 0x889001:09:00: Channel ID i = 0xA1838801:09:00:
Calling Party Number i = 0xA1, '6136', Plan:ISDN, Type:National01:09:00: Called Party Number i =
0x81, '214', Plan:ISDN, Type:Unknown01:09:00: %LINK-3-UPDOWN: Interface Serial1/0:7, changed
state to up01:09:00: ISDN Se1/0:15: TX -> CALL_PROC pd = 8 callref = 0xEF2801:09:00: Channel ID
i = 0xA9838801:09:00: ISDN Se1/0:15: TX -> CONNECT pd = 8 callref = 0xEF2801:09:00: Channel ID i
= 0xA9838801:09:00: Se1/0:7 PPP: Treating connection as a callin01:09:00: Se1/0:7 PPP:
Authorization required01:09:00: ISDN Se1/0:15: RX <- CONNECT_ACK pd = 8 callref =
0x6F2801:09:00: ISDN Se1/0:15: CALL_PROGRESS: CALL_CONNECTED call id 0x1B, bchan 7, dsl
001:09:01: Se1/0:7 PPP: Authorization required01:09:01: Se1/0:7 MCB: Initialize01:09:01: Se1/0:7
CHAP: O CHALLENGE id 1 len 28 from "suzanne"01:09:01: Se1/0:7 CHAP: I RESPONSE id 1 len 30 from
"alainisdn"01:09:01: Se1/0:7 PPP: Sent CHAP LOGIN Request to AAA01:09:01: Se1/0:7 PPP: Received
LOGIN Response from AAA = PASS01:09:01: Se1/0:7 DDR: Remote name for alainisdn01:09:01: Se1/0:7
CHAP: O SUCCESS id 1 len 401:09:01: Se1/0:7 DDR: PPP callback Callback server starting to
alainisdn 613601:09:01: Se1/0:7 DDR: disconnecting call01:09:01: %ISDN-6-CONNECT: Interface


```

Serial1/0:7 is now connected to 6136 alainisdn01:09:01: ISDN Se1/0:15: TX -> DISCONNECT pd = 8
callref = 0xEF2801:09:01: Cause i = 0x8090 - Normal call clearing01:09:01: ISDN Se1/0:15: RX <-
RELEASE pd = 8 callref = 0x6F2801:09:01: %LINK-3-UPDOWN: Interface Serial1/0:7, changed state to
down01:09:01: ISDN Se1/0:15: TX -> RELEASE_COMP pd = 8 callref = 0xEF2801:09:01: Se1/0:7 DDR:
disconnecting call01:09:02: ISDN Se1/0:15: RX <- SETUP pd = 8 callref = 0x70DF01:09:02: Sending
Complete01:09:02: Bearer Capability i = 0x889001:09:02: Channel ID i = 0xA1838901:09:02: Calling
Party Number i = 0xA1, '6136', Plan:ISDN, Type:National01:09:02: Called Party Number i = 0x81,
'214', Plan:ISDN, Type:Unknown01:09:02: %LINK-3-UPDOWN: Interface Serial1/0:8, changed state to
up01:09:02: ISDN Se1/0:15: TX -> CALL_PROC pd = 8 callref = 0xF0DF01:09:02: Channel ID i =
0xA9838901:09:02: ISDN Se1/0:15: TX -> CONNECT pd = 8 callref = 0xF0DF01:09:02: Channel ID i =
0xA9838901:09:02: Se1/0:8 PPP: Treating connection as a callin01:09:02: Se1/0:8 PPP:
Authorization required01:09:02: ISDN Se1/0:15: RX <- CONNECT_ACK pd = 8 callref =
0x70DF01:09:02: ISDN Se1/0:15: CALL_PROGRESS: CALL_CONNECTED call id 0x1C, bchan 8, dsl
001:09:02: Se1/0:8 PPP: Authorization required01:09:03: Se1/0:8 MCB: Initialize01:09:03: Se1/0:8
CHAP: O CHALLENGE id 1 len 28 from "suzanne"01:09:03: Se1/0:8 CHAP: I RESPONSE id 1 len 30 from
"alainisdn"01:09:03: Se1/0:8 PPP: Sent CHAP LOGIN Request to AAA01:09:03: Se1/0:8 PPP: Received
LOGIN Response from AAA = PASS01:09:03: Se1/0:8 DDR: Remote name for alainisdn01:09:03: Se1/0:8
CHAP: O SUCCESS id 1 len 401:09:03: Se1/0:8 DDR: callback to alainisdn already started01:09:03:
Se1/0:8 DDR: disconnecting call01:09:03: %ISDN-6-CONNECT: Interface Serial1/0:8 is now connected
to 6136 alainisdn01:09:03: ISDN Se1/0:15: TX -> DISCONNECT pd = 8 callref = 0xF0DF01:09:03:
Cause i = 0x8090 - Normal call clearing01:09:03: ISDN Se1/0:15: RX <- RELEASE pd = 8 callref =
0x70DF01:09:03: %LINK-3-UPDOWN: Interface Serial1/0:8, changed state to down01:09:03: ISDN
Se1/0:15: TX -> RELEASE_COMP pd = 8 callref = 0xF0DF01:09:03: Se1/0:8 DDR: disconnecting call!--
- Callback Start 01:09:16: DDR: Callback timer expired01:09:16: Di1 DDR: beginning callback to
alainisdn 613601:09:16: Se1/0:15 DDR: rotor dialout [priority]01:09:16: Se1/0:15 DDR: Attempting
to dial 613601:09:16: ISDN Se1/0:15: TX -> SETUP pd = 8 callref = 0x001001:09:16: Bearer
Capability i = 0x889001:09:16: Channel ID i = 0xA9839F01:09:16: Called Party Number i = 0x81,
'6136', Plan:ISDN, Type:Unknown01:09:16: ISDN Se1/0:15: RX <- CALL_PROC pd = 8 callref =
0x801001:09:16: Channel ID i = 0xA9839F01:09:16: ISDN Se1/0:15: RX <- ALERTING pd = 8 callref =
0x801001:09:16: ISDN Se1/0:15: RX <- CONNECT pd = 8 callref = 0x801001:09:16: Connected Number i
= 0xA13631333601:09:16: %LINK-3-UPDOWN: Interface Serial1/0:30, changed state to up01:09:16:
DDR: Freeing callback to alainisdn 613601:09:16: ISDN Se1/0:15: TX -> CONNECT_ACK pd = 8 callref
= 0x001001:09:16: Se1/0:30 PPP: Treating connection as a callout01:09:16: Se1/0:30 PPP:
Authorization required01:09:16: Se1/0:30 MCB: Initialize01:09:16: Se1/0:30 CHAP: I CHALLENGE id
7 len 30 from "alainisdn"01:09:16: Se1/0:30 PPP: Sent CHAP SENDAUTH Request to AAA01:09:16:
Se1/0:30 PPP: Received SENDAUTH Response from AAA = PASS01:09:16: Se1/0:30 CHAP: O RESPONSE id 7
len 28 from "suzanne"01:09:16: Se1/0:30 CHAP: I SUCCESS id 7 len 401:09:16: Se1/0:30 PPP: Sent
LCP AUTHOR Request to AAA01:09:16: Se1/0:30 PPP: Sent IPCP AUTHOR Request to AAA01:09:16:
Se1/0:30 LCP: Received AAA AUTHOR Response = PASS01:09:16: Se1/0:30 IPCP: Received AAA AUTHOR
Response = PASS01:09:16: Se1/0:30 DDR: dialer protocol up01:09:17: %LINEPROTO-5-UPDOWN: Line
protocol on Interface Serial1/0:30, changed state to up01:09:22: %ISDN-6-CONNECT: Interface
Serial1/0:30 is now connected to 6136 alainisdnsuzanne# suzanne#show ip routeCodes: C -
connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGPD - EIGRP, EX - EIGRP external, O -
OSPF, IA - OSPF inter area N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2E1 -
OSPF external type 1, E2 - OSPF external type 2, E - EGPi - IS-IS, L1 - IS-IS level-1, L2 - IS-
IS level-2, ia - IS-IS inter area* - candidate default, U - per-user static route, o - ODRP -
periodic downloaded static routeGateway of last resort is 172.17.243.1 to network 0.0.0.0
172.17.0.0/24 is subnetted, 1 subnetsC 172.17.243.0 is directly connected, Ethernet0/0
172.31.0.0/16 is variably subnetted, 2 subnets, 2 masksC 172.31.1.2/32 is directly connected,
Dialer1C 172.31.0.0/16 is directly connected, Dialer1S* 0.0.0.0/0 [1/0] via 172.17.243.1
suzanne#ping 172.31.1.2 Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to
172.31.1.2, timeout is 2 seconds: !!!!! Success rate is 100 percent (5/5), round-trip
min/avg/max = 32/34/36 ms suzanne#

```

[Información Relacionada](#)

- [Página de Soporte de la Tecnología de Marcación y Acceso](#)
- [Soporte Técnico y Documentación - Cisco Systems](#)