Uso de Puente medio PPP para conectar redes enrutadas y con conexión en puente.

Contenido

Introducción

Este documento proporciona una configuración de ejemplo para utilizar el puente medio PPP para conectar redes enrutadas y puenteadas.

Prerequisites

Requirements

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.

- Versión 12.2(7b) del software del IOS® de Cisco.

- Dos Cisco 2500 Series Routers. Cada uno tiene al menos una interfaz ISDN BRI.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Productos Relacionados

Esta configuración también se puede utilizar con las siguientes versiones de hardware y software:

- Cualquier interfaz serial, como serial, Basic Rate Interface (BRI), Primary Rate Interface (PRI), etc.
- Versión 11.2 de software del IOS de Cisco.
- Cualquier router que ejecute el software Cisco IOS como se mencionó anteriormente, y al menos un puerto ISDN-BRI. Sin embargo, la función de medio puente se puede utilizar en un router con una interfaz serial.

Convenciones

Para obtener más información sobre las convenciones del documento, consulte Convenciones de Consejos Técnicos de Cisco.

Antecedentes

El puente envía paquetes de puente al medio puente PPP que los convierte en paquetes enrutados y los reenvía a otros procesos del router. Del mismo modo, el puente medio PPP convierte los paquetes ruteados en paquetes de puente Ethernet y los envía al puente en la misma subred Ethernet.

Nota: Esta configuración no cubre un puente completo en ambos lados. Para tal configuración consulte el documento Bridging Across ISDN.

Tenga en cuenta que la conexión en puente en una conexión ISDN tiende a mantener activa la conexión durante periodos muy largos, si no permanentemente. Si la compañía telefónica cobra por ISDN en función del tiempo de conexión, esto puede resultar en una factura muy grande. Por consiguiente, este escenario se recomienda para aquellos que tienen líneas ISDN de uso ilimitado.

Nota: Una interfaz no puede funcionar como medio puente ni como puente. El software del IOS de Cisco no admite más de un puente medio PPP por subred Ethernet.
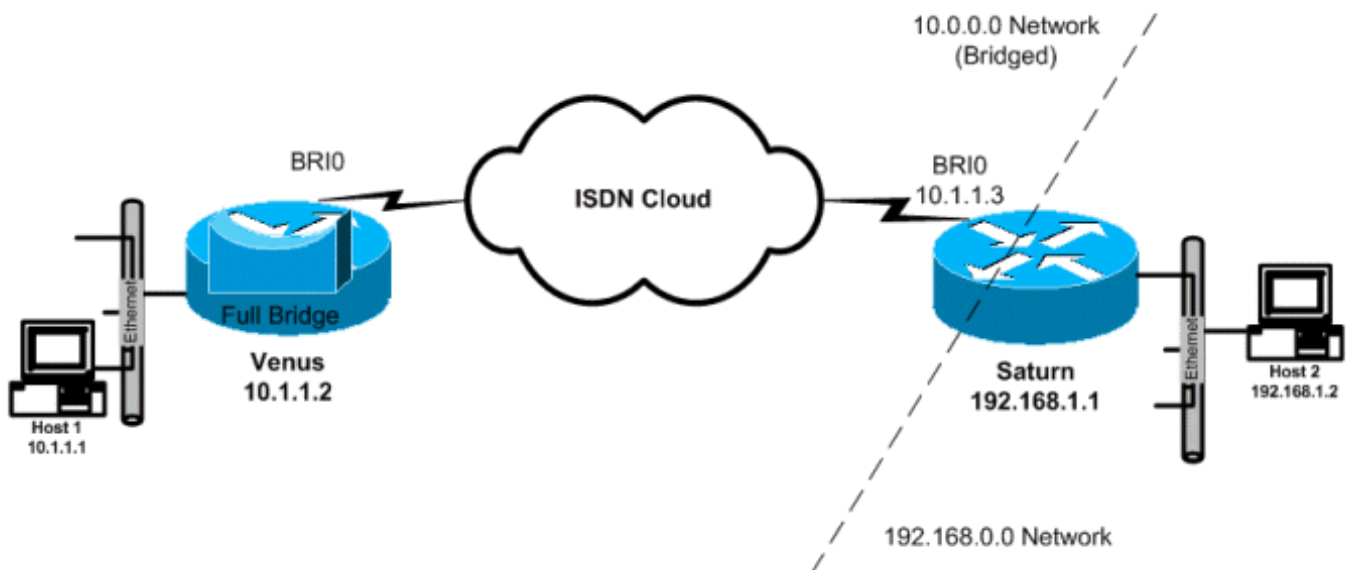
Configurar

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

Nota: Para encontrar información adicional sobre los comandos usados en este documento, utilice la Command Lookup Tool (sólo clientes registrados) .

Diagrama de la red

En este documento, se utiliza esta configuración de red:

Configuraciones

En este documento, se utilizan estas configuraciones:

- **Venus**Este router se configura como un puente completo con IP Routing inhabilitado. El dispositivo marca cuando llega cualquier tráfico puenteado.
- **Saturn**Este router se ha configurado como medio puente. Observe que los comandos **dialer string**, **dialer group** y **dialer list** no están configurados en este lado. Por lo tanto, este router nunca marcará, pero aceptará llamadas entrantes. Esto evita que el router marque el router remoto. Hemos activado el routing IP aquí. El software de conexión en puente completo no está configurado en este router. PPP half bridge se está ejecutando en la interfaz BRI, por lo que los comandos como **show bridge** y **show spanning-tree** no producen ningún resultado en este router.

Venus

```
Venus#show running-config
!
version 12.2
!
hostname Venus
!
username Saturn password 0 same
!--- Required for PPP CHAP authentication during dialup
ip subnet-zero no ip routing !--- Turn off routing no ip
domain-lookup ! isdn switch-type basic-5ess !--- The
ISDN switchtype for this circuit. Obtain this
information from the !--- Telco. This ISDN switch type
is USA specific and could be changed !--- depending on
the country and TELCO requirements ! interface Ethernet0
ip address 10.1.1.2 255.0.0.0 !--- This is for
management purpose only no ip route-cache no ip mroute-
cache bridge-group 1 !--- Assign this interface to
Bridge Group 1 !--- Frames are bridged only among
interfaces in the same group !--- Note: the dialer1
```

```
interface is also in this bridge-group 1 interface BRI0
no ip address no ip route-cache no ip mroute-cache
dialer pool-member 1 !--- Dialer profiles configured
with same dialer pool # !--- (in this case, dialer1)
will bind to this interface isdn switch-type basic-5ess
!--- Check with your Telco for the correct values !
interface Dialer1 !--- Configure the Dialer profile
description ISDN to Saturn ip address 10.1.1.2 255.0.0.0
encapsulation ppp dialer pool 1 !--- Use physical
interfaces configured with same pool # !--- (in this
case, bri0) during dialup dialer remote-name Saturn !---
Specifies remote CHAP name dialer string 5552000 !---
Specifies the number to dial when interesting traffic
arrives dialer-group 1 !--- Defines the interesting
traffic as configured in the dialer-list ppp
authentication chap !--- Use CHAP as the authentication
method bridge-group 1 !--- Assign this interface to
Bridge Group 1. !--- Frames are bridged only among
interfaces in the same group. !--- Note: the Ethernet
interface 0 is also in this bridge-group 1 ip default-
gateway 10.1.1.3 !--- All default traffic from Venus
should go through Saturn dialer-list 1 protocol bridge
permit !--- Defines the interesting traffic. In this
case, all bridged traffic bridge 1 protocol ieee !---
Define the type of Spanning-Tree Protocol used for the
interface in !--- bridge-group 1. Here we use the IEEE
spanning tree protocol. The IEEE 802.1D !--- Spanning-
Tree Protocol is the preferred way of running the
bridge. !
```

Saturn

```
Saturn#show running-config
!
version 12.2
!
hostname Saturn
!
username Venus password 0 same
!--- Required for PPP CHAP authentication during dialup
ip subnet-zero no ip domain-lookup ! isdn switch-type
basic-5ess !--- The ISDN switchtype for this circuit.
Obtain this information from the !--- Telco. This ISDN
switch type is USA specific and could be changed !---
depending on the country and Telco requirements !
interface Ethernet0 ip address 192.168.1.1 255.255.0.0 !
interface BRI0 no ip address no ip mroute-cache dialer
pool-member 1 !--- Dialer profiles configured with same
dialer pool # !--- (in this case, dialer1) will bind to
this interface isdn switch-type basic-5ess ! interface
Dialer1 !--- Configure the Dialer profile description
ISDN to Venus ip address 10.1.1.3 255.0.0.0 !--- IP
address is required to route the bridged traffic from
Venus !--- This ip address MUST be in the same subnet as
the remote bridge network encapsulation ppp dialer pool
1 !--- Use physical interfaces configured with same pool
# !--- (in this case, bri0) during dialup dialer remote-
name Venus pulse-time 0 ppp bridge ip !--- Configures
half bridge ppp authentication chap !--- Use CHAP as the
authentication method !
```

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.

- **show isdn status**: muestra el estado L1, L2 y L3 de las interfaces ISDN.
- **show dialer**: muestra el estado del marcador y el estado individual de los canales ISDN.
- **show bridge**: muestra clases de entradas en la base de datos de reenvío de puente, en modo EXEC privilegiado.
- **show interface**: muestra el estado de varias interfaces, incluidas las interfaces Serial y BRI.
- **show arp**: verifica el mapping ARP. ARP es un protocolo utilizado para asignar la dirección de capa 2 (dirección MAC) a una dirección de capa 3 (dirección IP).
- **show spanning-tree**: muestra la topología de spanning-tree conocida por el router.

Comandos show en Venus luego realizar la llamada a Saturno

```
Venus#show isdn status
Global ISDN Switchtype = basic-5ess
ISDN BRI0 interface
        dsl 0, interface ISDN Switchtype = basic-5ess
    Layer 1 Status:
        ACTIVE
    Layer 2 Status:
        TEI = 107, Ces = 1, SAPI = 0, State = MULTIPLE_FRAME_ESTABLISHED
    Layer 3 Status:
        1 Active Layer 3 Call(s)
        CCB:callid=800E, sapi=0, ces=1, B-chan=2, calltype=DATA
Active dsl 0 CCBs = 1
    The Free Channel Mask:
  0x80000001
    Number of L2 Discards = 0, L2 Session ID = 17
    Total Allocated ISDN CCBs = 1

Venus#show dialer
BRI0 - dialer type = ISDN

Dial String Successes Failures Last DNIS Last status
    0 incoming call(s) have been screened.
    0 incoming call(s) rejected for callback.

BRI0:1 - dialer type = ISDN
    Idle timer (120 secs), Fast idle timer (20 secs)
    Wait for carrier (30 secs), Re-enable (15 secs)
    Dialer state is idle

BRI0:2 - dialer type = ISDN
    Idle timer (120 secs), Fast idle timer (20 secs)
    Wait for carrier (30 secs), Re-enable (15 secs)
    Dialer state is data link layer up
    Dial reason: bridge (0x0800)
    Interface bound to profile Di1
    Time until disconnect 90 secs
    Current call connected 00:00:31

Di1 - dialer type = DIALER PROFILE
    Idle timer (120 secs), Fast idle timer (20 secs)
```

```
   Wait for carrier (30 secs), Re-enable (15 secs)
   Dialer state is data link layer up
   Number of active calls = 1
   Dial String Successes Failures Last DNIS Last status
   5552000   5   1   00:00:34  Successful Default




Venus#show interface bri0:2
   BRI0:2 is up, line protocol is up
   Hardware is BRI
   MTU 1500 bytes, BW 64 Kbit, DLY 20000 usec,
   reliability 255/255, txload 1/255, rxload 1/255
   Encapsulation PPP, loopback not set
   Keepalive set (10 sec)
   Time to interface disconnect: idle 00:01:18
   Interface is bound to Di1 (Encapsulation PPP)
   LCP Open
   Closed: IPCP
   Open: BRIDGECP, CDPCP
   !--- Bridge Control Protocol is open Last input 00:00:42, output 00:00:00, output hang never
Last clearing of "show interface" counters never Input queue: 0/75/0/0 (size/max/drops/flushes);
Total output drops: 0 Queueing strategy: fifo Output queue :0/40 (size/max) 5 minute input rate
0 bits/sec, 0 packets/sec 5 minute output rate 0 bits/sec, 0 packets/sec 161 packets input, 9796
bytes, 0 no buffer Received 0 broadcasts, 0 runts, 0 giants, 0 throttles 0 input errors, 0 CRC,
0 frame, 0 overrun, 0 ignored, 0 abort 328 packets output, 16659 bytes, 0 underruns 0 output
errors, 0 collisions, 7 interface resets 0 output buffer failures, 0 output buffers swapped out
16 carrier transitions


Venus#show bridge
Total of 300 station blocks, 298 free
   Codes: P - permanent, S - self


Bridge Group 1:

 Address Action Interface Age RX count TX count
   00d0.58ad.ae13 forward Ethernet0 0 74 58
   0060.5cf4.a955 forward Dialer1 0 58 72


Venus#show arp
   Protocol Address Age (min) Hardware Addr Type Interface
   Internet 10.1.1.2 - 0060.5cf4.a9a8 ARPA Ethernet0
   Internet 10.1.1.3 0 0060.5cf4.a955 ARPA Dialer1


Venus#show spanning-tree

Bridge group 1 is executing the ieee compatible Spanning Tree protocol
   Bridge Identifier has priority 32768, address 0060.5cf4.a9a8
   Configured hello time 2, max age 20, forward delay 15
   Current root has priority 32768, address 0009.7c2e.ba00
   Root port is 2 (Ethernet0), cost of root path is 100
   Topology change flag not set, detected flag not set
   Number of topology changes 1 last change occurred 22:09:28 ago
   from Ethernet0
   Times: hold 1, topology change 35, notification 2
   hello 2, max age 20, forward delay 15
   Timers: hello 0, topology change 0, notification 0, aging 300

Port 2 (Ethernet0) of Bridge group 1 is forwarding
   Port path cost 100, Port priority 128, Port Identifier 128.2.
   Designated root has priority 32768, address 0009.7c2e.ba00
   Designated bridge has priority 32768, address 0009.7c2e.ba00
   Designated port id is 128.13, designated path cost 0
```

```
   Timers: message age 2, forward delay 0, hold 0
   Number of transitions to forwarding state: 1
   BPDU: sent 1, received 39911

 Port 8 (Dialer1) of Bridge group 1 is forwarding
   Port path cost 17857, Port priority 128, Port Identifier 128.8.
   Designated root has priority 32768, address 0009.7c2e.ba00
   Designated bridge has priority 32768, address 0060.5cf4.a9a8
   Designated port id is 128.8, designated path cost 100
   Timers: message age 0, forward delay 0, hold 0
   Number of transitions to forwarding state: 1
   BPDU: sent 39879, received 0
```

Comandos show en Saturno luego de que Venus realiza la llamada

```
Saturn#show dialer
BRI0 - dialer type = ISDN
Dial String Successes Failures Last DNIS Last status
   0 incoming call(s) have been screened.

   0 incoming call(s) rejected for callback.

BRI0:1 - dialer type = ISDN
   Idle timer (120 secs), Fast idle timer (20 secs)
   Wait for carrier (30 secs), Re-enable (15 secs)
   Dialer state is idle

BRI0:2 - dialer type = ISDN
   Idle timer (120 secs), Fast idle timer (20 secs)
   Wait for carrier (30 secs), Re-enable (15 secs)
   Dialer state is data link layer up
   Interface bound to profile Di1
   Time until disconnect 45 secs
   Connected to




Di1 - dialer type = DIALER PROFILE
   Idle timer (120 secs), Fast idle timer (20 secs)
   Wait for carrier (30 secs), Re-enable (15 secs)
   Dialer state is data link layer up   Number of active calls = 1

Dial String Successes Failures Last DNIS Last status

Saturn#show isdn status
   Global ISDN Switchtype = basic-5ess
   ISDN BRI0 interface
   dsl 0, interface ISDN Switchtype = basic-5ess
   Layer 1 Status:
   ACTIVE
   Layer 2 Status:
   TEI = 105, Ces = 1, SAPI = 0, State = MULTIPLE_FRAME_ESTABLISHED
   I_Queue_Len 0, UI_Queue_Len 0
   Layer 3 Status:
   1 Active Layer 3 Call(s)
   CCB:callid=2B, sapi=0, ces=1, B-chan=2, calltype=DATA
   Active dsl 0 CCBs = 1
   The Free Channel Mask: 0x80000001
   Number of L2 Discards = 0, L2 Session ID = 37
   Total Allocated ISDN CCBs = 1
```

```
Saturn#show arp
    Protocol Address Age (min) Hardware Addr Type Interface
    Internet 10.1.1.2 27 0060.5cf4.a9a8 ARPA Dialer1
    Internet 10.1.1.1 63 00d0.58ad.ae13 ARPA Dialer1
    Internet 192.168.1.1 - 0060.5cf4.a955 ARPA Ethernet0
    Internet 192.168.1.2 53 0000.0c76.2882 ARPA Ethernet0

Saturn#show spanning-tree
No spanning tree instances exist.
!--- This router does not run full bridge, !--- so spanning tree does not run on this router
Saturn#show ip route
    Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
    D - 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 - EGP
    i - 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 - ODR
    P - periodic downloaded static route
Gateway of last resort is not set
C 10.0.0.0/8 is directly connected, Dialer1
C 192.168.0.0/16 is directly connected, Ethernet0
```

Troubleshoot

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

Recursos de resolución de problemas

Los procedimientos de resolución de problemas para llamadas ISDN entrantes y salientes se explican en la Tecnología de marcado: Documento Técnicas de Troubleshooting. Se proporciona información adicional sobre cómo resolver problemas de capa 1, capa 2 y capa 3 de ISDN en Uso del Comando show isdn status para Troubleshooting de BRI y Troubleshooting de la Capa 3 de BRI ISDN con el comando debug isdn q931.

Comandos para resolución de problemas

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

Nota: Antes de ejecutar un comando debug, consulte Información Importante sobre Comandos Debug.

- **debug dialer**: indica cuándo se ha detectado tráfico interesante y cuándo se inició la marcación.
- **debug isdn event**: indica la actividad ISDN que ocurre en el lado del usuario de la interfaz ISDN y es similar a **debug isdn q931**.
- **debug isdn q931**: proporciona información sobre la configuración de llamadas y la desconexión de conexiones de red ISDN (Capa 3), entre el router local (lado del usuario) y la red.
- **debug isdn q921**: muestra los procedimientos de acceso de capa de link de datos (Capa 2) que se están llevando a cabo en el router en el canal D (LAPD) de su interfaz ISDN.

- **debug ppp negotiation**: realiza la negociación de las opciones PPP y los parámetros del protocolo de control de red (NCP).
- **debug ppp authentication**: permite el intercambio de paquetes de protocolo de autenticación por desafío mutuo (CHAP) y protocolo de autenticación por contraseña (PAP).

Comandos de depuración en Venus cuando llega el tráfico interesante

```
Venus#
*Mar  1 22:00:14.838: BR0 DDR: rotor dialout [priority]
*Mar  1 22:00:14.838: BR0 DDR: Dialing cause bridge (0x0800)
*Mar  1 22:00:14.842: BR0 DDR: Attempting to dial 5552000
*Mar  1 22:00:14.846: ISDN BR0: Outgoing call id = 0x8006, dsl 0
*Mar  1 22:00:14.846: ISDN BR0: Event: Call to 5552000 at 64 Kb/s
*Mar  1 22:00:14.850: ISDN BR0: process_bri_call(): call id 0x8006,
called_number 5552000, speed 64, call type DATA
*Mar  1 22:00:14.854: CCBRI_Go Fr Host InPkgInfo (Len=22) :
*Mar  1 22:00:14.858: 1 0 1 80 6 0 4 2 88 90 18 1 83 2C 7 35 35 35 32 30 30 30
*Mar  1 22:00:14.866:
*Mar  1 22:00:14.870: CC_CHAN_GetIdleChanbri: dsl 0
*Mar  1 22:00:14.870:     Found idle channel B1
*Mar  1 22:00:14.886: ISDN BR0: TX -> INFOc sapi=0 tei=106 ns=0 nr=0
i=0x0801060504028890180183 2C0735353532303030
*Mar  1 22:00:14.906:     SETUP pd = 8  callref = 0x06
*Mar  1 22:00:14.914:         Bearer Capability i = 0x8890
*Mar  1 22:00:14.918:         Channel ID i = 0x83
*Mar  1 22:00:14.92Venus#6:         Keypad Facility i = '5552000'
*Mar  1 22:00:15.190: ISDN BR0: RX <- INFOc sapi=0 tei=106 ns=0 nr=1
i=0x0801860218018A
*Mar  1 22:00:15.198:     CALL_PROC pd = 8  callref = 0x86
*Mar  1 22:00:15.206:         Channel ID i = 0x8A
*Mar  1 22:00:15.222: ISDN BR0: TX -> RRr sapi=0 tei=106 nr=1
*Mar  1 22:00:15.230: CCBRI_Go Fr L3 pkt (Len=7) :
*Mar  1 22:00:15.230: 2 1 6 98 18 1 8A
*Mar  1 22:00:15.234:
*Mar  1 22:00:15.238: ISDN BR0: LIF_EVENT: ces/callid 1/0x8006
HOST_PROCEEDING
*Mar  1 22:00:15.238: ISDN BR0: HOST_PROCEEDING
*Mar  1 22:00:15.242: ISDN BR0: HOST_MORE_INFO
*Mar  1 22:00:15.658: ISDN BR0: RX <- INFOc sapi=0 tei=106 ns=1
nr=1 i=0x08018607
*Mar  1 22:00:15.666:     CONNECT pd = 8  callref = 0x86
*Mar  1 22:00:15.678: ISDN BR0: TX -> RRr sapi=0 tei=106 nr=2
*Mar  1 22:00:15.686: CCBRI_Go Fr L3 pkt (Len=4) :
*Mar  1 22:00:15.690: 7 1 6 91
*Mar  1 22:00:15.690:
*Mar  1 22:00:15.694: ISDN BR0: LIF_EVENT: ces/callid 1/0x8006 HOST_CONNECT
22:00:15: %LINK-3-UPDOWN: Interface BRI0:2, changed state to up
*Mar  1 22:00:15.702: BR0:2 PPP: Phase is DOWN, Setup [0 sess, 0 load]
*Mar  1 22:00:15.706: BR0:2 PPP: No remote authentication for call-out
*Mar  1 22:00:15.710: BR0:2 PPP: Phase is ESTABLISHING [0 sess, 0 load]
*Mar  1 22:00:15.710: BR0:2 PPP: Treating connection as a callout
*Mar  1 22:00:15.714: BR0:2 PPP: No remote authentication for call-out
*Mar  1 22:00:15.718: BR0:2 LCP: O CONFREQ [Closed] id 1 len 10
*Mar  1 22:00:15.722: BR0:2 LCP:    MagicNumber 0x6515B12A (0x05066515B12A)
*Mar  1 22:00:15.722: BR0:2: interface must be fifo queue, force fifo
22:00:15: %DIALER-6-BIND: Interface BR0:2 bound to profile Di1
*Mar  1 22:00:15.742: ISDN: get_isdn_service_state(): idb 0x1A2DBC bchan 3
is_isdn 1 Not a Pri
*Mar  1 22:00:15.746: BR0:2 PPP: Treating connection as a callout
*Mar  1 22:00:15.746: ISDN BR0: Event: Connected to 5552000 on B2 at 64 Kb/s
```

```
*Mar  1 22:00:15.762: ISDN BR0: TX -> INFOc sapi=0 tei=106 ns=1 nr=2 i=0x0801060F
*Mar  1 22:00:15.766:      CONNECT_ACK pd = 8  callref = 0x06
*Mar  1 22:00:15.774: BR0:2 LCP: I CONFREQ [REQsent] id 1 len 15
*Mar  1 22:00:15.778: BR0:2 LCP:    AuthProto CHAP (0x0305C22305)
*Mar  1 22:00:15.782: BR0:2 LCP:    MagicNumber 0x788C6F8F (0x0506788C6F8F)
*Mar  1 22:00:15.786: BR0:2 LCP: O CONFACK [REQsent] id 1 len 15
*Mar  1 22:00:15.790: BR0:2 LCP:    AuthProto CHAP (0x0305C22305)
*Mar  1 22:00:15.790: BR0:2 LCP:    MagicNumber 0x788C6F8F (0x0506788C6F8F)
*Mar  1 22:00:15.798: BR0:2 LCP: I CONFACK [ACKsent] id 1 len 10
*Mar  1 22:00:15.798: BR0:2 LCP:    MagicNumber 0x6515B12A (0x05066515B12A)
*Mar  1 22:00:15.802: BR0:2 LCP: State is Open
*Mar  1 22:00:15.806: BR0:2 PPP: Phase is AUTHENTICATING, by the peer
[0 sess, 1 load]
*Mar  1 22:00:15.870: ISDN BR0: RX <- RRr sapi=0 tei=106 nr=2
*Mar  1 22:00:15.882: BR0:2 CHAP: I CHALLENGE id 31 len 27 from "Saturn"
*Mar  1 22:00:15.890: BR0:2 CHAP: O RESPONSE id 31 len 26 from "Venus"
*Mar  1 22:00:15.914: BR0:2 **CHAP: I SUCCESS** id 31 len 4
*Mar  1 22:00:15.918: BR0:2 PPP: Phase is UP [0 sess, 1 load]
*Mar  1 22:00:15.922: BR0:2 BNCP: O CONFREQ [Closed] id 1 len 4
*Mar  1 22:00:15.926: BR0:2 IPCP: O CONFREQ [Closed] id 1 len 10
*Mar  1 22:00:15.930: BR0:2 IPCP:    Address 10.1.1.2 (0x03060A010102)
*Mar  1 22:00:15.934: BR0:2 CDPCP: O CONFREQ [Closed] id 1 len 4
*Mar  1 22:00:15.942: BR0:2 BNCP: I CONFREQ [REQsent] id 1 len 4
*Mar  1 22:00:15.946: BR0:2 BNCP: O CONFACK [REQsent] id 1 len 4
*Mar  1 22:00:15.950: BR0:2 CDPCP: I CONFREQ [REQsent] id 1 len 4
*Mar  1 22:00:15.954: BR0:2 CDPCP: O CONFACK [REQsent] id 1 len 4
*Mar  1 22:00:15.958: BR0:2 BNCP: I CONFACK [ACKsent] id 1 len 4
*Mar  1 22:00:15.958: BR0:2 BNCP: State is Open
*Mar  1 22:00:15.966: BR0:2 LCP: I PROTREJ [Open] id 2 len 16 protocol IPCP
(0x80210101000A03060A010102)
*Mar  1 22:00:15.970: BR0:2 IPCP: State is Closed
*Mar  1 22:00:15.974: BR0:2 CDPCP: I CONFACK [ACKsent] id 1 len 4
*Mar  1 22:00:15.978: BR0:2 CDPCP: State is Open
*Mar  1 22:00:15.978: BR0:2 **DDR: dialer protocol up**
22:00:16: %LINEPROTO-5-UPDOWN: Line protocol on Interface BRI0:2,
changed state to up
22:00:21: %ISDN-6-CONNECT: **Interface BRI0:2 is now connected to 5552000**
Venus#



Saturn#
4d16h: ISDN BR0: RX <- UI c/r=1 sapi=0 tei=127
i=0x08014105040288901801 8A7008C135353532303030
4d16h:      SETUP pd = 8  callref = 0x41
4d16h:         Bearer Capability i = 0x8890
4d16h:         Channel ID i = 0x8A
4d16h:         Called Party Number i = 0xC1, '5552000', Plan:ISDN,
Type:Subscriber(local)
4d16h: CCBRI_Go Fr L3 pkt (Len=21) :
4d16h: 5 1 C1 90 4 2 88 90 18 1 8A 70 8 C1 35 35 35 32 30 30 30
4d16h:
4d16h: ISDN BR0: Incoming call id = 0x002B, dsl 0
4d16h: ISDN BR0: LIF_EVENT: ces/callid 1/0x2B HOST_INCOMING_CALL
4d16h: ISDN BR0: HOST_INCOMING_CALL: (non-POTS) DATA
4d16h: ISDN BR0: HOST_INCOMING_CALL: (1) call_type = DATA
4d16h: ISDN BR0: HOST_INCOMING_CALL: voice_answer_data = FALSE call type is DATA
4d16h: ISDN BR0: Event: **Received a DATA call from**



4d16h: ISDN BR0: Event: Accepting the call id 0x2B
```

```
4d16h: BR0:2 PPP: Phase is DOWN, Setup [0 sess, 1 load]
4d16h: BR0:2 PPP: Phase is ESTABLISHING [0 sess, 1 load]
4d16h: BR0:2: inteSarface must be fifo queue, force fifo
4d16h: %DIALER-6-BIND: Interface BR0:2 bound to profile Di1
4d16h: ISDN BR0: RM returned call_type 0 resource type 0 response 1
4d16h: CCBRI_Go Fr Host InPkgInfo (Len=9) :
4d16h: 7 0 1 0 2B 3 18 1 8A
4d16h:
4d16h: ISDN BR0: isdn_send_connect(): msg 4, call id 0x2B, ces 1 bchan 1, c
all type DATA
4d16h: %LINK-3-UPDOWN: Interface BRI0:2, changed state to up
4d16h: ISDN: get_isdn_service_state(): idb 0x1A2EAC bchan 3 is_isdn 1 Not a Pri
4d16h: BR0:2 PPP: Treating connection as a callin
4d16h: BR0:2 LCP: State is Listen
4d16h: CCBRI_Go Fr Host InPkgInfo (Len=6) :
4d16h: 4 0 1 0 2B 0
4d16h:
4d16h: ISDN BR0: TX -> INFOc sapi=0 tei=105 ns=7 nr=5 i=0x0801C10218018A
4d16h:      CALL_PROC pd = 8  callref = 0xC1
4d16h:           Channel ID i = 0x8A
4d16h: ISDN BR0: RX <- RRr sapi=0 tei=105 nr=8
4d16h: ISDN BR0: TX -> INFOc sapi=0 tei=105 ns=8 nr=5 i=0x0801C107
4d16h:      CONNECT pd = 8  callref = 0xC1
4d16h: ISDN BR0: RX <- INFOc sapi=0 tei=105 ns=5 nr=9 i=0x0801410F
4d16h:      CONNECT_ACK pd = 8  callref = 0x41
4d16h: ISDN BR0: TX -> RRr sapi=0 tei=105 nr=6
4d16h: CCBRI_Go Fr L3 pkt (Len=4) :
4d16h: F 1 C1 92
4d16h:
4d16h: ISDN BR0: LIF_EVENT: ces/callid 1/0x2B HOST_CONNECT
4d16h: ISDN BR0: Event: Connected to <unknown> on B2 at 64 Kb/s
4d16h: BR0:2 LCP: I CONFREQ [Listen] id 1 len 10
4d16h: BR0:2 LCP:    MagicNumber 0x6515B12A (0x05066515B12A)
4d16h: BR0:2 LCP: O CONFREQ [Listen] id 1 len 15
4d16h: BR0:2 LCP:    AuthProto CHAP (0x0305C22305)
4d16h: BR0:2 LCP:    MagicNumber 0x788C6F8F (0x0506788C6F8F)
4d16h: BR0:2 LCP: O CONFACK [Listen] id 1 len 10
4d16h: BR0:2 LCP:    MagicNumber 0x6515B12A (0x05066515B12A)
4d16h: BR0:2 LCP: I CONFACK [ACKsent] id 1 len 15
4d16h: BR0:2 LCP:    AuthProto CHAP (0x0305C22305)
4d16h: BR0:2 LCP:    MagicNumber 0x788C6F8F (0x0506788C6F8F)
4d16h: BR0:2 LCP: State is Open
4d16h: BR0:2 PPP: Phase is AUTHENTICATING, by this end [0 sess, 0 load]
4d16h: BR0:2 CHAP: O CHALLENGE id 31 len 27 from "Saturn"
4d16h: BR0:2 CHAP: I RESPONSE id 31 len 26 from "Venus"
4d16h: BR0:2 CHAP: O SUCCESS id 31 len 4
4d16h: BR0:2 PPP: Phase is UP [0 sess, 0 load]
4d16h: BR0:2 BNCP: O CONFREQ [Closed] id 1 len 4
4d16h: BR0:2 CDPCP: O CONFREQ [Closed] id 1 len 4
4d16h: BR0:2 BNCP: I CONFREQ [REQsent] id 1 len 4
4d16h: BR0:2 BNCP: O CONFACK [REQsent] id 1 len 4: BR0:2 IPCP: I CONFREQ
[Not negotiated] id 1 len 10
4d16h: BR0:2 IPCP:    Address 10.1.1.2 (0x03060A010102)
4d16h: BR0:2 LCP: O PROTREJ [Open] id 2 len 16 protocol IPCP
(0x80210101000A03060A010102)
4d16h: BR0:2 CDPCP: I
4d16h CONFREQ [REQsent] id 1 len 4
4d16h: BR0:2 CDPCP: O CONFACK [REQsent] id 1 len 4
4d16h: BR0:2 BNCP: I CONFACK [ACKsent] id 1 len 4
4d16h: BR0:2 BNCP: State is Open
4d16h: BR0:2 CDPCP: I CONFACK [ACKsent] id 1 len 4
4d16h: BR0:2 CDPCP: State is Open
4d16h: BR0:2 DDR: dialer protocol up
4d16h: %LINEPROTO-5-UPDOWN: Line protocol on Interface BRI0:2, changed state to up
```

```
4d16h: %ISDN-6-CONNECT: Interface BRI0:2 is now connected to
<unknown phone number> Venus
 !--- Unknown phone number because of no dialer string on Saturn Saturn#
```

Información Relacionada

- [Más información sobre los comandos de respaldo de marcado](#)
- [Soporte de tecnología de Cisco – Marcar](#)
- [Soporte Técnico - Cisco Systems](#)