Using PPP Half-Bridging to Connect Routed and Bridged Networks (Utilizando meia conexão por ponte PPP para conectar redes roteadas e conectadas por ponte)

Contents

Introduction
Prerequisites
Requirements
Componentes Utilizados
Produtos Relacionados
Conventions
Informações de Apoio
Configurar
Diagrama de Rede
Configurações
Verificar
Comandos show em Venus após discagem para Saturn
Comandos show em discagens Saturn After Venus
Troubleshoot
Troubleshooting de Recursos
Comandos para Troubleshooting
Comandos de depuração em Vênus quando o tráfego interessante chega
Informações Relacionadas

Introduction

Este documento fornece uma configuração de exemplo para o uso do bridging intermediário PPP para conectar redes roteadas e interconectadas.

Prerequisites

Requirements

Não existem requisitos específicos para este documento.

Componentes Utilizados

As informações neste documento são baseadas nestas versões de software e hardware:

- Software Cisco IOS® versão 12.2(7b).
- Dois roteadores da série Cisco 2500. Cada uma tem pelo menos uma interface 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.

Produtos Relacionados

Esta configuração também pode ser utilizada com estas versões de hardware e software:

- Qualquer interface serial, como serial, BRI (Basic Rate Interface Interface de Taxa Básica), PRI (Primary Rate Interface Interface de Taxa Primária) e assim por diante.
- Software Cisco IOS versão 11.2.
- Qualquer roteador executando o software Cisco IOS conforme mencionado acima e pelo menos uma porta ISDN-BRI. No entanto, o recurso de meia ponte pode ser usado em um roteador com uma interface serial.

Conventions

Para obter mais informações sobre convenções de documento, consulte as Convenções de dicas técnicas Cisco.

Informações de Apoio

A ponte envia pacotes de ponte para a meia-ponte PPP que os converte em pacotes roteados e os encaminha para outros processos do roteador. Da mesma forma, a meia-bridge PPP converte pacotes roteados em pacotes de bridge Ethernet e os envia à bridge na mesma sub-rede Ethernet.

Observação: essa configuração não cobre uma bridge completa em ambos os lados. Para tal configuração, consulte o documento Bridging Across ISDN.

Esteja ciente de que o Bridging em uma conexão ISDN tende a manter a conexão ativa por períodos muito longos, se não permanentemente. Se a Telco cobrar por ISDN com base no tempo de conexão, isso pode resultar em uma conta muito grande. Consequentemente, esse cenário é recomendado para aqueles que têm linhas ISDN de uso ilimitado.

Observação: uma interface não pode funcionar como uma meia ponte e uma bridge. O software Cisco IOS não suporta mais de uma meia ponte PPP por sub-rede Ethernet.

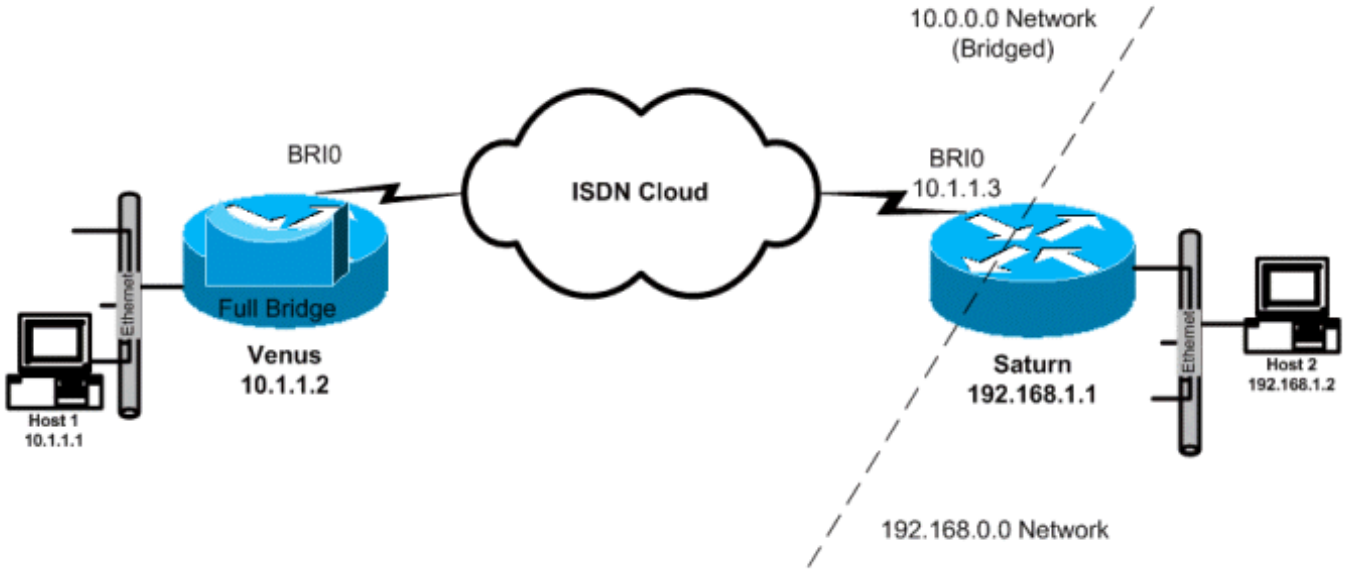
Configurar

Nesta seção, você encontrará informações para configurar os recursos descritos neste documento.

Observação: para encontrar informações adicionais sobre os comandos usados neste documento, use a ferramenta Command Lookup Tool (somente clientes registrados).

Diagrama de Rede

Este documento utiliza a seguinte configuração de rede:



Configurações

Este documento utiliza as seguintes configurações:

- **Vênus**Esse roteador está configurado como uma bridge completa com o roteamento IP desabilitado. O dispositivo disca quando qualquer tráfego de ponte chega.
- **Saturno**Este roteador foi configurado como uma meia ponte. Observe que os comandos **dialer string**, **dialer group** e **dialer list** não estão configurados nesse lado. Assim, esse roteador nunca discará, mas aceitará chamadas recebidas. Isso impede que o roteador disque para o roteador remoto. Ativamos o roteamento IP aqui. O software Full Bridging não está configurado neste roteador. A meia ponte PPP está sendo executada na interface BRI, portanto comandos como **show bridge** e **show spanning-tree** não produzem nenhuma saída neste roteador.

Vênus

```
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. !
```

Saturno

```
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 !
```

Verificar

Esta seção fornece informações que você pode usar para confirmar se sua configuração está funcionando adequadamente.

A Output Interpreter Tool (somente clientes registrados) oferece suporte a determinados comandos show, o que permite exibir uma análise da saída do comando show.

- **show isdn status** —exibe o status L1, L2 e L3 das interfaces ISDN.
- **show dialer** — exibe o status do discador e o status individual dos canais ISDN.
- **show bridge** — exibe classes de entradas no banco de dados de encaminhamento de bridge, no modo EXEC privilegiado.
- **show interface** —exibe o status de várias interfaces, incluindo as interfaces serial e BRI.
- **show arp** —verifica o mapeamento ARP. O ARP é um protocolo usado para mapear o endereço da Camada 2 (endereço MAC) para um endereço da Camada 3 (endereço IP).
- **show spanning-tree** —exibe a topologia spanning-tree conhecida pelo roteador.

Comandos show em Venus após discagem para Saturn

```
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 em discagens Saturn After Venus

```
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

Esta seção fornece informações que podem ser usadas para o troubleshooting da sua configuração.

Troubleshooting de Recursos

Os procedimentos de Troubleshooting para chamadas ISDN de entrada e saída são explicados na Tecnologia de Discagem: Documento Técnicas de Troubleshooting. Informações adicionais sobre como solucionar problemas das camadas 1, 2 e 3 da ISDN são fornecidas em Using the show isdn status Command for BRI Troubleshooting and Troubleshooting ISDN BRI Layer 3 usando o Comando debug isdn q931.

Comandos para Troubleshooting

A Output Interpreter Tool (somente clientes registrados) oferece suporte a determinados comandos show, o que permite exibir uma análise da saída do comando show.

Observação: antes de inserir o comando **debug**, consulte Informações importantes sobre os comandos debug.

- **debug dialer** —indica quando o tráfego interessante foi detectado e quando a discagem foi iniciada.
- **debug isdn event** — indica que a atividade ISDN está ocorrendo no lado do usuário da interface ISDN e é semelhante à **debug isdn q931**.
- **debug isdn q931** —fornece informações sobre a configuração de chamadas e a desconexão de conexões de rede ISDN (Camada 3), entre o roteador local (lado do usuário) e a rede.
- **debug isdn q921** —exibe os procedimentos de acesso da camada de enlace (Camada 2) que

estão ocorrendo no roteador no canal D (LAPD) de sua interface ISDN.

- **debug ppp negotiation** —executa a negociação de opções PPP e parâmetros do Network Control Protocol (NCP).
- **debug ppp authentication** —permite a troca de pacotes Challenge Authentication Protocol (CHAP) e Password Authentication Protocol (PAP).

Comandos de depuração em Vênus quando o tráfego interessante chega

```
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=0x08010605040288901801832C0735353532303030
*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
```

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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#
```

Informações Relacionadas

- Mais informações sobre os comandos de backup de discagem
- Suporte tecnológico Cisco - Discagem
- Suporte Técnico - Cisco Systems