

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

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## [Introdução](#)

Este documento fornece uma configuração de exemplo usando o PPP que constrói uma ponte sobre para conectar roteado e redes interligada.

## [Pré-requisitos](#)

### [Requisitos](#)

Não existem requisitos específicos para este documento.

### [Componentes Utilizados](#)

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

- Software Release 12.2(7b) de Cisco IOS®.
- Dois Cisco 2500 Series Router. Cada um tem pelo menos uma relação do ISDN BRI.

As informações neste documento foram criadas a partir de dispositivos em um ambiente de laboratório específico. Todos os dispositivos utilizados neste documento foram iniciados com uma configuração (padrão) inicial. Se a sua rede estiver ativa, certifique-se de que entende o impacto potencial de qualquer comando.

## Produtos Relacionados

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

- Alguma interface serial, tal como a série, Basic Rate Interface (BRI), relação da taxa principal (PRI), e assim por diante.
- Cisco IOS Software Release 11.2.
- Algum Cisco IOS Software running do roteador como mencionado acima, e pelo menos uma porta ISDN-BRI. Contudo, os recursos de semiBridge podem ser usados em um roteador com uma interface serial.

## Convenções

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. Igualmente, o semibrige PPP converte pacotes roteado aos pacotes do bridge Ethernet, e envia-os à ponte na mesma sub-rede de Ethernet.

**Note:** Esta configuração não cobre um bridge direta em ambos os lados. Para tal configuração refira o documento do [Bridging através de ISDN](#).

Esteja ciente que construir uma ponte sobre em uma conexão ISDN tende a manter muito a conexão ativa por períodos longos, se não permanentemente. Se o telco carrega para o ISDN baseado no tempo de conexão, este pode conduzir a uma conta muito grande. Consequentemente, esta encenação é recomendada para aquelas que têm linhas ISDN de uso ilimitado.

**Note:** Uma relação não pode funcionar como um semibrige e uma ponte. O Cisco IOS Software apoia não mais de um semibrige PPP pela sub-rede de Ethernet.

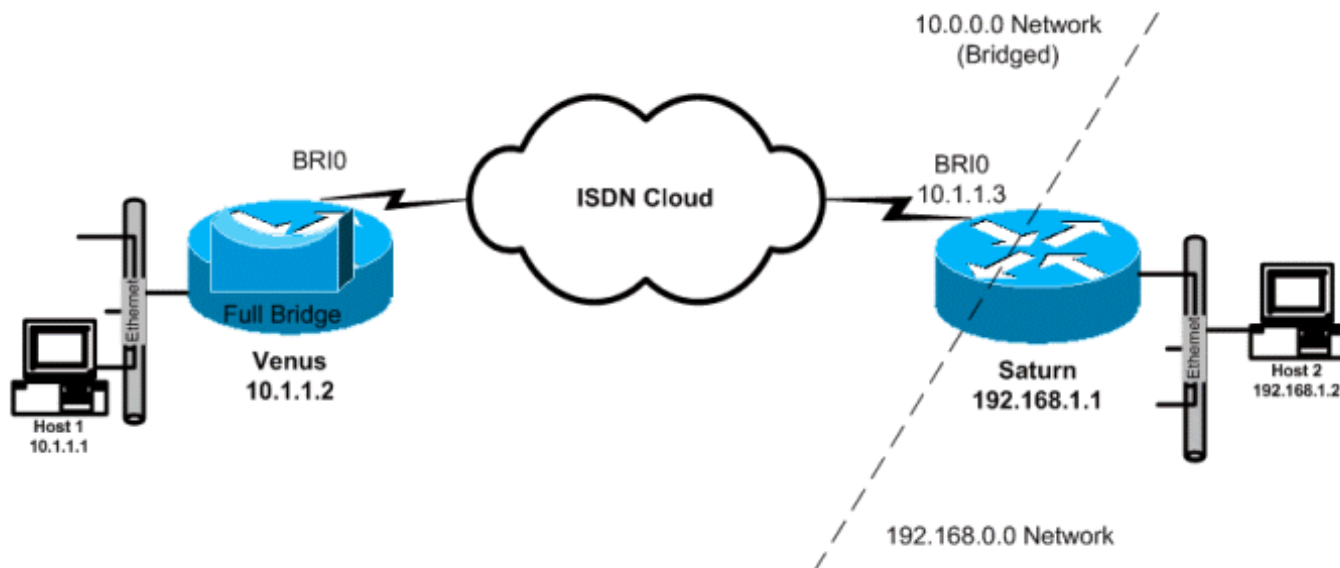
## Configurar

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

**Note:** Para localizar informações adicionais sobre os comandos usados neste documento, utilize a Ferramenta Command Lookup (somente clientes [registrados](#)).

## Diagrama de Rede

Este documento utiliza a seguinte configuração de rede:



## Configurações

Este documento utiliza as seguintes configurações:

- **Venus** Este roteador é configurado como um bridge direta com Roteamento IP desabilitou. Os seletores do dispositivo quando todo o tráfego interligado chegar.
- **Saturn** Este roteador foi configurado como um semibridge. Note que os **comandos dialer string, dialer group, e dialer list** não estão configurados neste lado. Assim este roteador nunca disará, mas aceitará chamadas recebidas. Isto impede que o roteador disque o roteador remoto. Nós gerenciamos Roteamento IP sobre aqui. O software de Bridging completo não é configurado neste roteador. O semibridge PPP está sendo executado na interface BRI, assim que os comandos como a **mostra constroem uma ponte sobre e a medir-árvore da mostra** não rende nenhuma saída neste roteador.

```
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 !
```

## 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.

- **status de ISDN da mostra** — indica o estado L1, L2, e L3 das interfaces.
- **discador da mostra** — indica o estado do discador, e o status individual dos canais ISDN.
- **ponte da mostra** — classes dos indicadores de entradas no Bridge Forwarding Database, no modo de exec privilegiado.
- **relação da mostra** — indica o estado de várias relações, incluindo a série e as interfaces BRI.
- **a mostra arp** — verifica o mapeamento ARP. O ARP é um protocolo usado para traçar o endereço da camada 2 (MAC address) a um endereço da camada 3 (endereço IP de Um ou Mais Servidores Cisco ICM NT).
- **medir-árvore da mostra** — indica a topologia de Spanning Tree conhecida ao 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 <unknown phone number> (Venus)**

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

## Troubleshooting

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

### Troubleshooting de Recursos

Os procedimentos de Troubleshooting para chamadas ISDN entrantes e que parte são explicados na [tecnologia dialup](#): Documento das [técnicas de Troubleshooting](#). A informação adicional em como pesquisar defeitos edições da camada de ISDN 1, da camada 2 e da camada 3 é dada em [usar o comando show isdn status para o Troubleshooting de BRI](#) e [pesquisar defeitos o ISDN BRI mergulham 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.

**Note:** [Antes de emitir comandos de depuração, consulte as informações importantes sobre eles.](#)

- **debug dialer** — indica quando o tráfego interessante esteve detectado, e quando discar está iniciado.
- **debug isdn event** — indica a atividade de ISDN que ocorre no lado do usuário da interface, e é similar **debugar o q931 de ISDN**.
- **debugar o q931 de ISDN** — fornece a informação sobre a configuração de chamada e desconexão das conexões de rede ISDN (camada 3), entre o roteador local (lado do usuário) e a rede.



- **debugar isdn q921** — indica os procedimentos de acesso da camada de link de dados (camada 2) que estão ocorrendo no roteador no canal D (LAPD) de sua interface.
- **debugar a negociação ppp** — executa a negociação de opções de PPP e os parâmetros do protocolo network control (NCP).
- **debugar a autenticação de PPP** — permite a troca de pacotes do protocolo challenge authentication (RACHADURA) e do protocolo password authentication (PAP).

## Comandos Debug em Venus quando o tráfego interessante chegar

```
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 Dil
*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=0x080141050402889018018A7008C135353532303030
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 <unknown> on B2 at 64 Kb/s
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: inteSurface 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 informação em comandos dial-backup](#)
- [Suporte tecnológico Cisco - Discagem](#)
- [Suporte Técnico - Cisco Systems](#)