Configuring DDR Backup For ISDN With Dialer Profiles

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Contents

Introduction

This sample configuration shows how you can use an ISDN BRI circuit to back up a leased line, WAN, or serial connection.

This document uses dialer profiles and the backup interface feature. The **backup interface** command puts the configured physical or logical interface in standby mode until such times as the primary interface goes down.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

This configuration uses a BRI circuit to backup a serial link. Router ramses is doing the dial−out since the dialer string is configured on that router. In this configuration:

- A Cisco 2500 router (ramses) is used, connected to a Cisco 2520 router (sphinx). Both routers are also equipped with BRI interfaces that are used for the backup link.
- Both routers are running Cisco IOS Software Release 12.0.7T.

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.

Conventions

For more information on document conventions, refer to Cisco Technical Tips Conventions.

Configure

In this section, you are presented with the information to configure the features described in this document. These three steps complete this configuration:

1. Configure dial−on−demand routing (DDR) with Legacy DDR or dialer profiles. The sample configuration shown in this document uses dialer profiles.
2. Use the **backup interface** command to trigger the dialout call when the primary link fails.
3. Define interesting traffic.

Note: It is recommended that you configure the DDR connection (dialer 1 with BRI0) and verify that is working properly, before you configure the **backup interface** and **backup delay** commands. This allows you to effectively manage and troubleshoot dialer profiles, ISDN, PPP and authentication issues before you configure the backup.

Note: To find additional information on the commands used in this document, use the Command Lookup Tool (registered customers only) .

Network Diagram

This document uses this network setup:
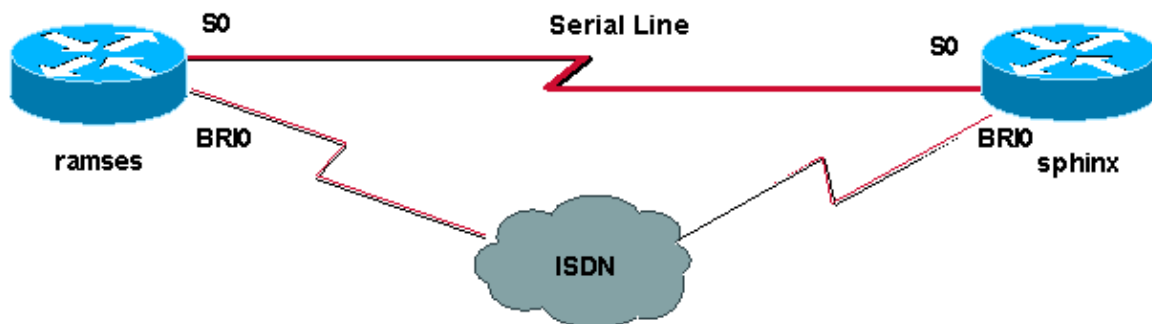
Configurations

This document uses these configurations:

- ramses (Cisco 2500 Router)
- sphinx (Cisco 2520 Router)

ramses (Cisco 2500 Router)

```
ramses#show running-config
Building configuration...

Current configuration:
!
version 12.0
service timestamps debug datetime msec
service timestamps log datetime msec
```

```
!
hostname ramses
!
username sphinx password <password>

!-- password is case sensitive and should be the same on both sides

!
isdn switch-type basic-net3
!
!
interface Loopback1
ip address 1.1.1.1 255.255.255.255
!
interface Ethernet0
ip address 10.48.74.45 255.255.254.0
!
interface Serial0
backup delay 10 30
backup interface Dialer1
ip address 3.3.3.1 255.255.255.0
no ip directed-broadcast
clockrate 125000
!
interface BRI0
no ip address
no ip directed-broadcast
encapsulation ppp
dialer pool-member 2
isdn switch-type basic-net3
no cdp enable
ppp authentication chap callin
!
interface Dialer1
ip unnumbered Loopback1
no ip directed-broadcast
encapsulation ppp
dialer remote-name sphinx
dialer pool 2
dialer string 5551000
dialer-group 1
ppp authentication chap callin
!
ip classless
ip route 2.2.2.1 255.255.255.255 Dialer1
ip route 2.2.2.1 255.255.255.255 Serial0
no ip http server
!
dialer-list 1 protocol ip permit
!
line con 0
exec-timeout 0 0
transport input none
line aux 0
line vty 0 4
exec-timeout 0 0
password <password>
login
!
ntp server 10.200.20.134
end
```

sphinx (Cisco 2520 Router)

```
sphinx#show running-config
```

```
Building configuration...
Current configuration:
!
version 12.0
service timestamps debug datetime msec
service timestamps log datetime msec
!
hostname sphinx
!
!
username ramses password <password>

!-- password is case sensitive and should be the same on both sides

!
isdn switch-type basic-net3
interface Loopback1
ip address 2.2.2.1 255.255.255.255
!
interface Serial0
ip address 3.3.3.2 255.255.255.0
!
interface BRI0
no ip address
no ip directed-broadcast
encapsulation ppp
dialer pool-member 2
isdn switch-type basic-net3
no cdp enable
ppp authentication chap callin
!
interface Dialer1
ip unnumbered Loopback1
no ip directed-broadcast
encapsulation ppp
dialer remote-name ramses
dialer pool 2
dialer-group 1
ppp authentication chap
!
ip classless
ip route 1.1.1.1 255.255.255.255 Serial0
ip route 1.1.1.1 255.255.255.255 Dialer1 2
dialer-list 1 protocol ip permit
!
line con 0
exec-timeout 0 0
transport input none
line aux 0
line vty 0 4
!
end
```

Verify

This section provides information you can use to confirm your configuration is working properly.

Certain **show** commands are supported by the Output Interpreter Tool (registered customers only) , which allows you to view an analysis of **show** command output.

- **show isdn status**???Displays the status of all ISDN interfaces or a specific ISDN interface.
- **show interface serial**???Displays information about a serial interface.

- **show interface dialer**???Displays information about a dialer interface.
- **debug dialer**???Displays DDR information about the packets received on the dialer interface.
- **debug isdn q931**???Shows call setup and tear down of the ISDN network connection (Layer 3) between the router and the ISDN switch.
- **debug ppp negotiation**???Displays information on PPP traffic and exchanges while negotiating the PPP components including Link Control Protocol (LCP), Authentication, and NCP. A successful PPP negotiation will first open the LCP state, then Authenticate, and finally negotiate NCP.
- **debug ppp authentication**???Displays the PPP authentication protocol messages, including Challenge Authentication Protocol (CHAP) packet exchanges and Password Authentication Protocol (PAP) exchanges. If you observe a failure, verify that the CHAP username and password are configured correctly.

Troubleshoot

This section provides information you can use to troubleshoot your configuration.

Troubleshooting Steps

Follow these instructions to troubleshoot your configuration:

Use the **show isdn status** command to ensure that the router is communicating properly with the ISDN switch. In the output, verify that:

- Layer 1 Status is ACTIVE
- Layer 2 Status State = MULTIPLE_FRAME_ESTABLISHED

This command also displays the number of active calls. Let's look at an example:

```
ramses#show isdn status
Global ISDN Switchtype = basic-net3
ISDN BRI0 interface
dsl 0, interface ISDN Switchtype = basic-net3
Layer 1 Status:
ACTIVE
Layer 2 Status:
TEI = 97, Ces = 1, SAPI = 0, State = MULTIPLE_FRAME_ESTABLISHED
Layer 3 Status:
0 Active Layer 3 Call(s)
Activated dsl 0 CCBs = 0
The Free Channel Mask: 0x80000003
Total Allocated ISDN CCBs = 0

ramses#show interface serial 0
Serial0 is up, line protocol is up
Hardware is HD64570
Internet address is 3.3.3.1/24
Backup interface Dialer1, failure delay 10 sec, secondary disable
delay 30 sec

ramses#show interface dialer 1
Dialer1 is standby mode, line protocol is down
! --- In standby mode.
Hardware is Unknown
```

Since the backup interface is in standby mode, you do not see this information in the output of the **show ip route** command.

Let's look at the differences shown in the output when using an administrative distance (AD) and when not using one.

When Not Using an Administrative Distance

When not using an AD, you see the following output:

```
sphinx#show interface dialer 1
Dialer1 is up (spoofing), line protocol is up (spoofing)
Hardware is Unknown
```

If you do not use an AD for the dialer on the router sphinx, you see the following output from the **show ip route** command:

```
sphinx(config)#ip route 1.1.1.1 255.255.255.255 dialer1

! --- No AD used here.


sphinx#show ip route 1.1.1.1
Routing entry for 1.1.1.1/32
Known via "static", distance 1, metric 0 (connected)
Routing Descriptor Blocks:
* directly connected, via Dialer1
Route metric is 0, traffic share count is 1
directly connected, via Serial0
Route metric is 0, traffic share count is 1
```

The output displayed by the **ping** command looks similar to the following, in that it is missing one of the pings:

```
sphinx#ping 1.1.1.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 1.1.1.1, timeout is 2 seconds:
.!.!.
```

When Using an Administrative Distance

When using an AD, you see the following output:

```
sphinx(config)#ip route 1.1.1.1 255.255.255.255 dialer1 2

! --- The AD used here is two.


sphinx#show ip route 1.1.1.1
Routing entry for 1.1.1.1/32
Known via "static", distance 1, metric 0 (connected)
Routing Descriptor Blocks:
* directly connected, via Serial0
Route metric is 0, traffic share count is 1

sphinx#ping 1.1.1.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 1.1.1.1, timeout is 2 seconds:
!!!!!
```

Configure and verify that the DDR connection (between Dialer 1 and BRI0) is working properly before you configure the **backup interface** and **backup delay** commands. This allows you to verify that the dialer profile, ISDN, PPP, and authentication is functioning correctly before configuring the backup.

Once you have verified the DDR connection is working properly, you can proceed to the following backup troubleshooting steps outlined below:

1. Bring down the primary link.

   Note: Do not use the **shutdown** command on the router with the **backup interface** command configured. This does not cause the Cisco IOS to dial the backup link. You can activate the backup by shutting down the primary interface on the router that does not have the **backup interface** command.

   Note: In our scenario, the **backup interface** command is configured on ramses (the Cisco 2500 router). Therefore, performing a shutdown command on the primary interface of sphinx (the Cisco 2520 router) activates the backup link.

   Note: You can physically bring down the primary connection by unplugging the cables, or using some equivalent method, in order to bring up the backup interface.

2. You should see a console message indicating that the backup interface (interface dialer 1) is up. This message only appears after the interval time, specified by the **backup delay** command, has expired. In this configuration, the backup activation delay is 10 seconds.

   If you do not see this console message, check the backup delay timer.

   ```
   *Mar 1 03:54:00.451: %LINEPROTO-5-UPDOWN: Line protocol on Interface
   Serial0, changed state to down
   *Mar 1 03:54:11.467: %LINK-3-UPDOWN: Interface Dialer1, changed state to up
   ```

3. Use the **show ip route** command to view the routing table with the primary link down. You should observe a directly connected route to Dialer 1.

4. Ping the IP address of the remote router's loopback interface. If the link does not dial, verify that your interesting traffic definition permits ICMP traffic (pings).

   Note: In our example, an AD of two is used for the route in the router sphinx (this can be any number other than one).

   ```
   ip route 1.1.1.1 255.255.255.255 Dialer1 2
   ```

   Note: The reason for this is that, if the primary link is up, half of the pings are lost. Since the both the dialer 1 and serial 0 interfaces are up, the route is installed for both interfaces. However, the dialer interface cannot send the packet since the BRI interface is not up.

Troubleshooting Commands

Use the commands shown in this section to troubleshoot your configuration.

Certain **show** commands are supported by the Output Interpreter Tool (registered customers only) , which allows you to view an analysis of **show** command output.

Note: Before issuing **debug** commands, refer to Important Information on Debug Commands.

Try to to **ping 2.2.2.1** to create interesting traffic:

```
ramses#ping 2.2.2.1
   *Mar 1 04:53:26.574: %LINK-3-UPDOWN: Interface Serial0, changed state
   to down
   *Mar 1 04:53:27.574: %LINEPROTO-5-UPDOWN: Line protocol on Interface
   Serial0, changed state to down
   *Mar 1 04:53:38.590: %LINK-3-UPDOWN: Interface Dialer1, changed state
   to up
```

```
*Mar  1 04:53:38.606: Di1 LCP: Not allowed on a Dialer Profile.
*Mar  1 04:53:40.058: BRI0 DDR: rotor dialout [priority]
*Mar  1 04:53:40.062: BRI0 DDR: Dialing cause ip (s=1.1.1.1, d=2.2.2.1)
*Mar  1 04:53:40.066: BRI0 DDR: Attempting to dial 5551000
*Mar  1 04:53:40.078: ISDN BR0: TX -> SETUP pd = 8 callref = 0x0A
*Mar  1 04:53:40.078: Bearer Capability i = 0x8890
*Mar  1 04:53:40.082: Channel ID i = 0x83
*Mar  1 04:53:40.086: Called Party Number i = 0x80, '5551000'
*Mar  1 04:53:40.342: ISDN BR0: RX <- CALL_PROC pd = 8 callref = 0x8A
*Mar  1 04:53:40.346: Channel ID i = 0x89
*Mar  1 04:53:40.834: ISDN BR0: RX <- CONNECT pd = 8 callref = 0x8A
*Mar  1 04:53:40.846: ISDN BR0: TX -> CONNECT_ACK pd = 8 callref =
0x0A
*Mar  1 04:53:40.854: %LINK-3-UPDOWN: Interface BRI0:1, changed state to
up
*Mar  1 04:53:40.870: BRI0:1: interface must be fifo queue, force fifo
*Mar  1 04:53:40.874: %DIALER-6-BIND: Interface BRI0:1 bound to profile
Dialer1
*Mar  1 04:53:40.882: %ISDN-6-CONNECT: Interface BRI0:1 is now connected
to 5551000
*Mar  1 04:53:40.890: BR0:1 PPP: Treating connection as a callout
*Mar  1 04:53:40.890: BR0:1 PPP: Phase is ESTABLISHING, Active Open
*Mar  1 04:53:40.894: BR0:1 PPP: No remote authentication for call-out
*Mar  1 04:53:40.898: BR0:1 LCP: O CONFREQ [Closed] id 18 len 10
*Mar  1 04:53:40.902: BR0:1 LCP: MagicNumber 0xE1BD38B8
(0x0506E1BD38B8)
*Mar  1 04:53:40.930: BR0:1 LCP: I CONFREQ [REQsent] id 22 len 15
*Mar  1 04:53:40.934: BR0:1 LCP: AuthProto CHAP (0x0305C22305)
*Mar  1 04:53:40.938: BR0:1 LCP: MagicNumber 0xEEBCFA2D
(0x0506EEBCFA2D)
*Mar  1 04:53:40.942: BR0:1 LCP: O CONFACK [REQsent] id 22 len 15
*Mar  1 04:53:40.946: BR0:1 LCP: AuthProto CHAP (0x0305C22305)
*Mar  1 04:53:40.950: BR0:1 LCP: MagicNumber 0xEEBCFA2D
(0x0506EEBCFA2D)
*Mar  1 04:53:40.954: BR0:1 LCP: I CONFACK [ACKsent] id 18 len 10
*Mar  1 04:53:40.954: BR0:1 LCP: MagicNumber 0xE1BD38B8
(0x0506E1BD38B8)
*Mar  1 04:53:40.958: BR0:1 LCP: State is Open
*Mar  1 04:53:40.962: BR0:1 PPP: Phase is AUTHENTICATING, by the peer
*Mar  1 04:53:40.982: BR0:1 CHAP: I CHALLENGE id 9 len 27 from "sphinx"
*Mar  1 04:53:40.986: BR0:1 CHAP: O RESPONSE id 9 len 27 from "ramses"
*Mar  1 04:53:41.046: BR0:1 CHAP: I SUCCESS id 9 len 4
*Mar  1 04:53:41.050: BR0:1 PPP: Phase is UP
*Mar  1 04:53:41.054: BR0:1 IPCP: O CONFREQ [Not negotiated] id 9 len 10
*Mar  1 04:53:41.058: BR0:1 IPCP: Address 1.1.1.1 (0x030601010101)
*Mar  1 04:53:41.062: BR0:1 CDPCP: O CONFREQ [Not negotiated] id 9 len 4
*Mar  1 04:53:41.066: BR0:1 IPCP: I CONFREQ [REQsent] id 6 len 10
*Mar  1 04:53:41.070: BR0:1 IPCP: Address 2.2.2.1 (0x030602020201)
*Mar  1 04:53:41.074: BR0:1 IPCP: O CONFACK [REQsent] id 6 len 10
*Mar  1 04:53:41.078: BR0:1 IPCP: Address 2.2.2.1 (0x030602020201)
*Mar  1 04:53:41.082: BR0:1 CDPCP: I CONFREQ [REQsent] id 9 len 4
*Mar  1 04:53:41.086: BR0:1 CDPCP: O CONFACK [REQsent] id 9 len 4
*Mar  1 04:53:41.110: BR0:1 IPCP: I CONFACK [ACKsent] id 9 len 10
*Mar  1 04:53:41.110: BR0:1 IPCP: Address 1.1.1.1 (0x030601010101)
*Mar  1 04:53:41.114: BR0:1 IPCP: State is Open
*Mar  1 04:53:41.122: BR0:1 CDPCP: I CONFACK [ACKsent] id 9 len 4
*Mar  1 04:53:41.126: BR0:1 CDPCP: State is Open
*Mar  1 04:53:41.126: BRI0:1 DDR: dialer protocol up
*Mar  1 04:53:41.134: Di1 IPCP: Install route to 2.2.2.1
*Mar  1 04:53:42.086: %LINEPROTO-5-UPDOWN: Line protocol on Interface
BRI0:1, changed state to up
*Mar  1 04:53:46.886: %ISDN-6-CONNECT: Interface BRI0:1 is now connected
to 5551000 5551000

ramses#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 data link layer up
Dial reason: ip (s=1.1.1.1, d=2.2.2.1)
! --- we see dial reason, this is the calling router
Interface bound to profile Dialer1
Time until disconnect 105 secs
Current call connected 00:00:16
Connected to 5551000 (5551000)

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 idle

Dialer1 – 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
Number of active circuit switched calls = 0

Dial String Successes Failures Last DNIS Last status
5551000 5 0 00:00:19 successful
Default

Dialer2 – dialer type = NONE
Idle timer (120 secs), Fast idle timer (20 secs)
Wait for carrier (30 secs), Re-enable (15 secs)
Number of active calls = 0

Dial String Successes Failures Last DNIS Last status

ramses#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

1.0.0.0/32 is subnetted, 1 subnets
C 1.1.1.1 is directly connected, Loopback1
2.0.0.0/32 is subnetted, 1 subnets
C 2.2.2.1 is directly connected, Dialer1
10.0.0.0/23 is subnetted, 1 subnets
C 10.48.74.0 is directly connected, Ethernet0

sphinx(config)#interface serial 0
sphinx(config-if)#shutdown
sphinx(config-if)#
*Mar 3 20:07:40.603: %LINK-5-CHANGED: Interface Serial0, changed state
to administratively down
*Mar 3 20:07:41.603: %LINEPROTO-5-UPDOWN: Line protocol on Interface
```

```
Serial0, changed state to down
*Mar 3 20:07:54.331: ISDN BR0: RX <- SETUP pd = 8 callref = 0x14
*Mar 3 20:07:54.335: Bearer Capability i = 0x8890
*Mar 3 20:07:54.339: Channel ID i = 0x89
*Mar 3 20:07:54.343: Called Party Number i = 0xC1, '5551000'
*Mar 3 20:07:54.355: ISDN BR0: Event: Received a DATA call from
<unknown> on B1 at 64 Kb/s
*Mar 3 20:07:54.355: BRI0:1: interface must be fifo queue, force fifo
*Mar 3 20:07:54.363: %DIALER-6-BIND: Interface BRI0:1 bound to profile
Dialer1
*Mar 3 20:07:54.383: %LINK-3-UPDOWN: Interface BRI0:1, changed state to
up
*Mar 3 20:07:54.403: %ISDN-6-CONNECT: Interface BRI0:1 is now connected
to <unknown phone number>
*Mar 3 20:07:54.411: BR0:1 PPP: Treating connection as a callin
*Mar 3 20:07:54.415: BR0:1 PPP: Phase is ESTABLISHING, Passive Open
*Mar 3 20:07:54.415: BR0:1 LCP: State is Listen
*Mar 3 20:07:54.471: %ISDN-6-LAYER2UP: Layer 2 for Interface BR0, TEI
99 changed to up
*Mar 3 20:07:54.479: ISDN BR0: TX -> CALL_PROC pd = 8 callref = 0x94
*Mar 3 20:07:54.687: ISDN BR0: TX -> CONNECT pd = 8 callref = 0x94
*Mar 3 20:07:54.851: ISDN BR0: RX <- CONNECT_ACK pd = 8 callref =
0x14
*Mar 3 20:07:54.939: BR0:1 LCP: I CONFREQ [Listen] id 18 len 10
*Mar 3 20:07:54.939: BR0:1 LCP: MagicNumber 0xE1BD38B8
(0x0506E1BD38B8)
*Mar 3 20:07:54.943: BR0:1 LCP: O CONFREQ [Listen] id 22 len 15
*Mar 3 20:07:54.947: BR0:1 LCP: AuthProto CHAP (0x0305C22305)
*Mar 3 20:07:54.951: BR0:1 LCP: MagicNumber 0xEEBCFA2D
(0x0506EEBCFA2D)
*Mar 3 20:07:54.955: BR0:1 LCP: O CONFACK [Listen] id 18 len 10
*Mar 3 20:07:54.959: BR0:1 LCP: MagicNumber 0xE1BD38B8
(0x0506E1BD38B8)
*Mar 3 20:07:54.987: BR0:1 LCP: I CONFACK [ACKsent] id 22 len 15
*Mar 3 20:07:54.987: BR0:1 LCP: AuthProto CHAP (0x0305C22305)
*Mar 3 20:07:54.991: BR0:1 LCP: MagicNumber 0xEEBCFA2D
(0x0506EEBCFA2D)
*Mar 3 20:07:54.995: BR0:1 LCP: State is Open
*Mar 3 20:07:54.995: BR0:1 PPP: Phase is AUTHENTICATING, by this end
*Mar 3 20:07:54.999: BR0:1 CHAP: O CHALLENGE id 9 len 27 from "sphinx"
*Mar 3 20:07:55.027: BR0:1 CHAP: I RESPONSE id 9 len 27 from "ramses"
*Mar 3 20:07:55.035: BR0:1 CHAP: O SUCCESS id 9 len 4
*Mar 3 20:07:55.039: BR0:1 PPP: Phase is UP
*Mar 3 20:07:55.043: BR0:1 IPCP: O CONFREQ [Not negotiated] id 6 len 10

*Mar 3 20:07:55.047: BR0:1 IPCP: Address 2.2.2.1 (0x030602020201)
*Mar 3 20:07:55.051: BR0:1 CDPCP: O CONFREQ [Not negotiated] id 9 len 4

*Mar 3 20:07:55.115: BR0:1 IPCP: I CONFREQ [REQsent] id 9 len 10
*Mar 3 20:07:55.119: BR0:1 IPCP: Address 1.1.1.1 (0x030601010101)
*Mar 3 20:07:55.123: BR0:1 IPCP: O CONFACK [REQsent] id 9 len 10
*Mar 3 20:07:55.127: BR0:1 IPCP: Address 1.1.1.1 (0x030601010101)
*Mar 3 20:07:55.131: BR0:1 CDPCP: I CONFREQ [REQsent] id 9 len 4
*Mar 3 20:07:55.135: BR0:1 CDPCP: O CONFACK [REQsent] id 9 len 4
*Mar 3 20:07:55.139: BR0:1 IPCP: I CONFACK [ACKsent] id 6 len 10
*Mar 3 20:07:55.143: BR0:1 IPCP: Address 2.2.2.1 (0x030602020201)
*Mar 3 20:07:55.147: BR0:1 IPCP: State is Open
*Mar 3 20:07:55.151: BR0:1 CDPCP: I CONFACK [ACKsent] id 9 len 4
*Mar 3 20:07:55.155: BR0:1 CDPCP: State is Open
*Mar 3 20:07:55.159: BRI0:1 DDR: dialer protocol up
*Mar 3 20:07:55.167: Di1 IPCP: Install route to 1.1.1.1
*Mar 3 20:07:56.039: %LINEPROTO-5-UPDOWN: Line protocol on Interface
BRI0:1, changed state to up
*Mar 3 20:08:00.411: %ISDN-6-CONNECT: Interface BRI0:1 is now connected
to <unknown phone number> ramses
```

```
sphinx#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 data link layer up
Interface bound to profile Dialer1
Time until disconnect 95 secs
Connected to <unknown phone number> (ramses)

! --- We see ramses.

                      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 idle

Dialer1 – 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
Number of active circuit switched calls = 0

Dial String Successes Failures Last DNIS Last status

sphinx#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

1.0.0.0/32 is subnetted, 1 subnets
C 1.1.1.1 is directly connected, Dialer1
2.0.0.0/32 is subnetted, 1 subnets
C 2.2.2.1 is directly connected, Loopback1
sphinx#
```

Related Information

- **Access Technology Support Pages**
- **Technical Support – Cisco Systems**