

Exemplo 9-1 Configuração para PPP e HDLC

```
Router A                               Router B
interface serial 0                     interface serial 0
encapsulation ppp                      encapsulation ppp
.
. later, changed to...                 . later, changed to...
.
interface serial 0                     interface serial 0
encapsulation hdlc                    encapsulation hdlc
```

Exemplo 9-2 Configuração e verificação da compactação PPP

```
! Configuração de Seville:
!
interface Serial1
ip address 10.1.11.253 255.255.255.0
encapsulation ppp
compress stac
! Configuração de Mars:
!
interface Serial1
ip address 10.1.11.1 255.255.255.0
encapsulation ppp
compress stac
!
Seville#show compress
Serial1
Software compression enabled
uncompressed bytes xmt/rcv 260596/222296
compressed bytes xmt/rcv 0/0
1 min avg ratio xmt/rcv 7.752/14.439
5 min avg ratio xmt/rcv 7.731/14.439
10 min avg ratio xmt/rcv 7.731/14.439
no bufs xmt 0 no bufs rcv 0
resyncs 0
Additional Stacker Stats:
Transmit bytes: Uncompressed = 288 Compressed = 31188
Received bytes: Compressed = 15241 Uncompressed = 0
Seville#show process
CPU utilization for five seconds: 15%/15%; one minute: 27%; five minutes: 26%
PID QTy PC Runtime (ms) Invoked uSecs Stacks TTY Process
1 Csp 31C084C 4024 13359 301 720/1000 0 Load Meter
```

Exemplo 9-3 Configuração CHAP de exemplo

```
Router Fred                               Router Barney
username Barney password Bedrock         username Fred password Bedrock
!                                         !
interface serial 0                       interface serial 0
```

```

encapsulation ppp
ppp authentication chap
.
encapsulation ppp
ppp authentication chap
.

```

Exemplo 9-4 Configuração Multilink PPP para Atlanta

```

username Nashville password Robert
interface bri 0
ip addr 10.3.3.1 255.255.255.0
encapsulation ppp
dialer idle-timeout 300
dialer load-threshold 25 either
dialer map 10.3.3.2 name Nashville 16155551234
dialer-group 1
ppp authentication chap
ppp multilink

```

Exemplo 9-5 Definindo os pacotes interessantes para ativar o circuito de SanFrancisco para LosAngeles

```

ip route 172.16.3.0 255.255.255.0 172.16.2.1
access-list 101 permit tcp any host 172.16.3.1 eq 80
dialer-list 1 protocol ip permit
dialer-list 2 protocol ip list 101
interface bri 0
encapsulation ppp
ip address 172.16.2.2 255.255.255.0
! Use esse caso todo o IP seja considerado interessante...
dialer-group 1
! OU use a próxima instrução para engatilhar de Web para o servidor Lois
dialer-group 2

```

Exemplo 9-6 Configuração de SanFrancisco: agora pode haver uma discagem

```

ip route 172.16.3.0 255.255.255.0 172.16.2.1
!
access-list 101 permit tcp any host 172.16.3.1 eq 80
!
dialer-list 2 protocol ip list 101
!
interface bri 0
ip address 172.16.2.2 255.255.255.0
encapsulation ppp
dialer string 14045551234
dialer-group 2

```

Exemplo 9-7 Configuração de SanFrancisco: duas discagens para as instalações físicas com um mapa de discagem

```

ip route 172.16.3.0 255.255.255.0 172.16.2.1
ip route 172.16.4.0 255.255.255.0 172.16.2.3
! Nomes de usuário acrescentados para o suporte CHAP!
username LosAngeles password Clark
username GothamCity password Bruce

```

```

access-list 101 permit tcp any host 172.16.3.1 eq 80
! Próxima instrução acrescentada para tornar a conexão FTP do cliente interessante!
access-list 101 permit tcp any host 172.16.4.1 eq 21
!
dialer-list 2 protocol ip list 101
!
interface bri 0
ip address 172.16.2.2 255.255.255.0
encapsulation ppp
ppp authentication chap
dialer map ip 172.16.2.1 broadcast name LosAngeles 14045551234
dialer map ip 172.16.2.3 broadcast name GothamCity 199999999901
dialer-group 2
!
router igrp 6
network 172.16.0.0

```

Exemplo 9-8 Configuração completa de SanFrancisco

```

ip route 172.16.3.0 255.255.255.0 172.16.2.1
ip route 172.16.4.0 255.255.255.0 172.16.2.3
! Nomes de usuário acrescentados para o suporte CHAP!
username LosAngeles password Clark
username GothamCity password Bruce
!
access-list 101 permit tcp any host 172.16.3.1 eq 80
access-list 101 permit tcp any host 172.16.4.1 eq 21
!
dialer-list 2 protocol ip list 101
!
interface bri 0
encapsulation ppp
ppp authentication chap
isdn spid1 555555111101
isdn spid2 555555222202
dialer idle-timeout 300
dialer fast-idle 120
dialer map ip 172.16.2.1 broadcast name LosAngeles 14045551234
dialer map ip 172.16.2.3 broadcast speed 56 name GothamCity 199999999901
dialer-group 2
!
router igrp 6
network 172.16.0.0

```

Exemplo 9-9 Configuração de LosAngeles: apenas recebendo

```

username SanFrancisco password Clark
!

```

```

interface bri 0
encapsulation ppp
ppp authentication chap
isdn switch-type basic-ni1
!
router igrp 6
network 172.16.0.0

```

Exemplo 9-10 Comandos DDR de SanFrancisco

```

SanFrancisco# show interfaces bri 0:1
BRI0:1 is down, line protocol is down
Hardware is BRI
MTU 1500 bytes, BW 64 Kbit, DLY 20000 usec, rely 255/255, load 1/255
Encapsulation PPP, loopback not set, keepalive set (10 sec)
LCP Open
Open: IPCP, CDPCP
Last input 00:00:05, output 00:00:05, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0 (size/max/drops); Total output drops: 0
Queuing strategy: weighted fair
Output queue: 0/1000/64/0 (size/max total/threshold/drops)
Conversations 0/1/256 (active/max active/max total)
Reserved Conversations 0/0 (allocated/max allocated)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
44 packets input, 1986 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
49 packets output, 2359 bytes, 0 underruns
0 output errors, 0 collisions, 7 interface resets
0 output buffer failures, 0 output buffers swapped out
11 carrier transitions
DCD=up DSR=up DTR=up RTS=up CTS=up
SanFrancisco# show dialer interface bri 0
BRI0 - dialer type = ISDN
Dial String Successes Failures Last called Last status
0 incoming call(s) have been screened.
BRI0: B-Channel 1
Idle timer (300 secs), Fast idle timer (120 secs)
Wait for carrier (30 secs), Re-enable (15 secs)
Dialer state is data link layer up
Dial reason: ip (s=172.16.1.1, d=172.16.3.1)
Time until disconnect 18 secs
Current call connected 00:14:00
Connected to 14045551234 (LosAngeles)

```

```
BRI0: B-Channel 2
Idle timer (300 secs), Fast idle timer (120 secs)
Wait for carrier (30 secs), Re-enable (15 secs)
Dialer state is idle
SanFrancisco# show isdn active

-----

ISDN ACTIVE CALLS

-----

History Table MaxLength = 320 entries
History Retain Timer = 15 Minutes

-----

Call Calling Called Duration Remote Time until Recorded Charges
Type Number Number Seconds Name Disconnect Units/Currency

-----

Out 14045551234 Active(847) LosAngeles 11 u

-----

SanFrancisco# show isdn status
The current ISDN Switchtype = ntt
ISDN BRI0 interface
Layer 1 Status:
ACTIVE
Layer 2 Status:
TEI = 64, State = MULTIPLE_FRAME_ESTABLISHED
Layer 3 Status:
1 Active Layer 3 Call(s)
Activated dsl 0 CCBs = 1
CCB:callid=8003, callref=0, sapi=0, ces=1, B-chan=1
Number of active calls = 1
Number of available B-channels = 1
Total Allocated ISDN CCBs = 1
SanFrancisco# debug isdn q931
ISDN q931 protocol debugging is on
TX -> SETUP pd = 8 callref = 0x04
Bearer Capability i = 0x8890
Channel ID i = 0x83
Called Party Number i = 0x80, '14045551234'
SanFrancisco#no debug all
All possible debugging has been turned off
SanFrancisco# debug dialer events
Dialer event debugging is on
Dialing cause: BRI0: ip (s=172.16.1.1, d=172.16.3.1)
SanFrancisco#no debug all
All possible debugging has been turned off
SanFrancisco# debug dialer packets
```

```
Dialer packet debugging is on
BRI0: ip (s=172.16.1.1, d=172.16.3.1) 444 bytes, interesting (ip PERMIT)
```

Exemplo 9-11 Saída de comando de Albuquerque para o Cenário 9-1

```
Albuquerque#show ip interface brief
Interface IP-Address OK? Method Status Protocol
Serial0 199.1.1.129 YES NVRAM up up
Serial1 199.1.1.193 YES NVRAM up up
Ethernet0 199.1.1.33 YES NVRAM up up

Albuquerque#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, * - candidate default
U - per-user static route, o - ODR
Gateway of last resort is not set
199.1.1.0/24 is variably subnetted, 7 subnets, 2 masks
C 199.1.1.192/27 is directly connected, Serial1
C 199.1.1.130/32 is directly connected, Serial0
C 199.1.1.128/27 is directly connected, Serial0
I 199.1.1.160/27 [100/10476] via 199.1.1.130, 00:00:01, Serial0
  [100/10476] via 199.1.1.194, 00:00:54, Serial1
I 199.1.1.64/27 [100/8539] via 199.1.1.130, 00:00:01, Serial0
I 199.1.1.96/27 [100/8539] via 199.1.1.194, 00:00:54, Serial1
C 199.1.1.32/27 is directly connected, Ethernet0

Albuquerque#show ipx route
Codes: C - Connected primary network, c - Connected secondary network
S - Static, F - Floating static, L - Local (internal), W - IPXWAN
R - RIP, E - EIGRP, N - NLSP, X - External, A - Aggregate
s - seconds, u - uses
6 Total IPX routes. Up to 1 parallel paths and 16 hops allowed.
No default route known.
C 1001 (SAP), E0
C 2001 (PPP), Se0
C 2003 (HDLC), Se1
R 1002 [07/01] via 2001.0200.bbbb.bbbb, 50s, Se0
R 1003 [07/01] via 2003.0200.cccc.cccc, 57s, Se1
R 2002 [07/01] via 2001.0200.bbbb.bbbb, 51s, Se0

Albuquerque#debug ppp negotiation
PPP protocol negotiation debugging is on
%LINK-3-UPDOWN: Interface Serial0, changed state to up
Se0 PPP: Treating connection as a dedicated line
Se0 PPP: Phase is ESTABLISHING, Active Open
Se0 LCP: O CONFREQ [Closed] id 15 len 10
```

```

Se0 LCP: MagicNumber 0x003C2A1F (0x0506003C2A1F)
Se0 LCP: I CONFREQ [REQsent] id 34 len 10
Se0 LCP: MagicNumber 0x0648CFD3 (0x05060648CFD3)
Se0 LCP: O CONFACK [REQsent] id 34 len 10
Se0 LCP: MagicNumber 0x0648CFD3 (0x05060648CFD3)
Se0 LCP: TIMEout: Time = 0xBA0E0 State = ACKsent
Se0 LCP: O CONFREQ [ACKsent] id 16 len 10
Se0 LCP: MagicNumber 0x003C2A1F (0x0506003C2A1F)
Se0 LCP: I CONFACK [ACKsent] id 16 len 10
Se0 LCP: MagicNumber 0x003C2A1F (0x0506003C2A1F)
Se0 LCP: State is Open
Se0 PPP: Phase is UP
Se0 IPCP: O CONFREQ [Closed] id 3 len 10
Se0 IPCP: Address 199.1.1.129 (0x0306C7010181)
Se0 CDPCP: O CONFREQ [Closed] id 3 len 4
Se0 LLC2CP: O CONFREQ [Closed] id 3 len 4
Se0 IPXCP: O CONFREQ [Closed] id 3 len 18
Se0 IPXCP: Network 0x00002001 (0x010600002001)
Se0 IPXCP: Node 0200.aaaa.aaaa (0x02080200AAAAAAAA)
Se0 IPCP: I CONFREQ [REQsent] id 4 len 10
Se0 IPCP: Address 199.1.1.130 (0x0306C7010182)
Se0 IPCP: O CONFACK [REQsent] id 4 len 10
Se0 IPCP: Address 199.1.1.130 (0x0306C7010182)
Se0 CDPCP: I CONFREQ [REQsent] id 6 len 4
Se0 CDPCP: O CONFACK [REQsent] id 6 len 4
Se0 LLC2CP: I CONFREQ [REQsent] id 6 len 4
Se0 LLC2CP: O CONFACK [REQsent] id 6 len 4
Se0 IPXCP: I CONFREQ [REQsent] id 4 len 18
Se0 IPXCP: Network 0x00002001 (0x010600002001)
Se0 IPXCP: Node 0200.bbbb.bbbb (0x02080200BBBBBBBB)
Se0 IPXCP: O CONFACK [REQsent] id 4 len 18
Se0 IPXCP: Network 0x00002001 (0x010600002001)
Se0 IPXCP: Node 0200.bbbb.bbbb (0x02080200BBBBBBBB)

```

Exemplo 9-12 Saída de comando de Yosemite para o Cenário 9-1

```

Yosemite#show ipx interface brief
Interface IPX Network Encapsulation Status IPX State
Serial0 2001 PPP up [up]
Serial1 2002 LAPB up [up]
Ethernet0 1002 SAP up [up]
Yosemite#show ipx route
Codes: C - Connected primary network, c - Connected secondary network
S - Static, F - Floating static, L - Local (internal), W - IPXWAN
R - RIP, E - EIGRP, N - NLSP, X - External, A - Aggregate
s - seconds, u - uses

```

```

6 Total IPX routes. Up to 1 parallel paths and 16 hops allowed.
No default route known.
C 1002 (SAP), E0
C 2001 (PPP), Se0
C 2002 (LAPB), Se1
R 1001 [07/01] via 2001.0200.aaaa.aaaa, 46s, Se0
R 1003 [13/02] via 2001.0200.aaaa.aaaa, 47s, Se0
R 2003 [07/01] via 2001.0200.aaaa.aaaa, 47s, Se0
Yosemite#show interface serial 1 accounting
Serial1
Protocol Pkts In Chars In Pkts Out Chars Out
IP 37 2798 41 3106
Yosemite#ping ipx 2002.0200.cccc.cccc
Type escape sequence to abort.
Sending 5, 100-byte IPX Cisco Echoes to 2002.0200.cccc.cccc, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)
Yosemite#ping 199.1.1.162
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 199.1.1.162, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 8/8/8 ms
Yosemite#ping ipx 1003.0000.30ac.70ef
Type escape sequence to abort.
Sending 5, 100-byte IPX Cisco Echoes to 1003.0000.30ac.70ef, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 8/8/12 ms
Seville#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, * - candidate default
U - per-user static route, o - ODR
Gateway of last resort is not set
199.1.1.0/27 is subnetted, 6 subnets
C 199.1.1.192 is directly connected, Serial0
I 199.1.1.128 [100/10476] via 199.1.1.161, 00:00:36, Serial1
  [100/10476] via 199.1.1.193, 00:01:09, Serial0
C 199.1.1.160 is directly connected, Serial1
I 199.1.1.64 [100/8539] via 199.1.1.161, 00:00:36, Serial1
C 199.1.1.96 is directly connected, Ethernet0
I 199.1.1.32 [100/8539] via 199.1.1.193, 00:01:09, Serial0
Seville#show ipx route

```

```

Codes: C - Connected primary network, c - Connected secondary network
S - Static, F - Floating static, L - Local (internal), W - IPXWAN
R - RIP, E - EIGRP, N - NLSP, X - External, A - Aggregate
s - seconds, u - uses

6 Total IPX routes. Up to 1 parallel paths and 16 hops allowed.
No default route known.
C 1003 (SAP), E0
C 2002 (LAPB), Se1
C 2003 (HDLC), Se0
R 1001 [07/01] via 2003.0200.aaaa.aaaa, 2s, Se0
R 1002 [13/02] via 2003.0200.aaaa.aaaa, 2s, Se0
R 2001 [07/01] via 2003.0200.aaaa.aaaa, 2s, Se0
Seville#show interface serial 0 accounting
Serial0

Protocol Pkts In Chars In Pkts Out Chars Out
IP 44 3482 40 3512
IPX 46 3478 44 2710
CDP 21 6531 26 7694
Seville#debug lapb
LAPB link debugging is on
%LINK-3-UPDOWN: Interface Serial1, changed state to up
Serial1: LAPB O SABMSENT (2) SABM P
Serial1: LAPB I SABMSENT (2) UA F
Serial1: LAPB I CONNECT (104) IFRAME 0 0
Serial1: LAPB O CONNECT (76) IFRAME 0 1Serial1: LAPB I CONNECT (76) IFRAME 1 1
Serial1: LAPB O CONNECT (2) RR (R) 2
Seville#
Seville#ping 199.1.1.161
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 199.1.1.161, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 8/8/12 ms
Seville#
Serial1: LAPB O CONNECT (102) IFRAME 1 3
Serial1: LAPB I CONNECT (102) IFRAME 3 2
Serial1: LAPB O CONNECT (2) RR (R) 4
Serial1: LAPB O CONNECT (102) IFRAME 2 4
Serial1: LAPB I CONNECT (102) IFRAME 4 3
Serial1: LAPB O CONNECT (2) RR (R) 5
Serial1: LAPB O CONNECT (102) IFRAME 3 5
Serial1: LAPB I CONNECT (2) RR (R) 4
Serial1: LAPB I CONNECT (102) IFRAME 5 4
Serial1: LAPB O CONNECT (2) RR (R) 6
Serial1: LAPB O CONNECT (102) IFRAME 4 6

```

```
Serial1: LAPB I CONNECT (102) IFRAME 6 5
Serial1: LAPB O CONNECT (2) RR (R) 7
Serial1: LAPB O CONNECT (102) IFRAME 5 7
Serial1: LAPB I CONNECT (102) IFRAME 7 6
Serial1: LAPB O CONNECT (2) RR (R) 0
```

Exemplo 9-13 Saída de comando de Seville para o Cenário 9-1

```
Seville#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, * - candidate default
U - per-user static route, o - ODR
Gateway of last resort is not set
199.1.1.0/27 is subnetted, 6 subnets
C 199.1.1.192 is directly connected, Serial0
I 199.1.1.128 [100/10476] via 199.1.1.161, 00:00:36, Serial1
  [100/10476] via 199.1.1.193, 00:01:09, Serial0
C 199.1.1.160 is directly connected, Serial1
I 199.1.1.64 [100/8539] via 199.1.1.161, 00:00:36, Serial1
C 199.1.1.96 is directly connected, Ethernet0
I 199.1.1.32 [100/8539] via 199.1.1.193, 00:01:09, Serial0
Seville#show ipx route
Codes: C - Connected primary network, c - Connected secondary network
S - Static, F - Floating static, L - Local (internal), W - IPXWAN
R - RIP, E - EIGRP, N - NLSP, X - External, A - Aggregate
s - seconds, u - uses
6 Total IPX routes. Up to 1 parallel paths and 16 hops allowed.
No default route known.
C 1003 (SAP), E0
C 2002 (LAPB), Se1
C 2003 (HDLC), Se0
R 1001 [07/01] via 2003.0200.aaaa.aaaa, 2s, Se0
R 1002 [13/02] via 2003.0200.aaaa.aaaa, 2s, Se0
R 2001 [07/01] via 2003.0200.aaaa.aaaa, 2s, Se0
Seville#show interface serial 0 accounting
Serial0
Protocol Pkts In Chars In Pkts Out Chars Out
IP 44 3482 40 3512
IPX 46 3478 44 2710
CDP 21 6531 26 7694
Seville#debug lapb
LAPB link debugging is on
%LINK-3-UPDOWN: Interface Serial1, changed state to up
```

```

Serial1: LAPB O SABMSENT (2) SABM P
Serial1: LAPB I SABMSENT (2) UA F
Serial1: LAPB I CONNECT (104) IFRAME 0 0
Serial1: LAPB O CONNECT (76) IFRAME 0 1Serial1: LAPB I CONNECT (76) IFRAME 1 1
Serial1: LAPB O CONNECT (2) RR (R) 2
Seville#
Seville#ping 199.1.1.161
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 199.1.1.161, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 8/8/12 ms
Seville#
Serial1: LAPB O CONNECT (102) IFRAME 1 3
Serial1: LAPB I CONNECT (102) IFRAME 3 2
Serial1: LAPB O CONNECT (2) RR (R) 4
Serial1: LAPB O CONNECT (102) IFRAME 2 4
Serial1: LAPB I CONNECT (102) IFRAME 4 3
Serial1: LAPB O CONNECT (2) RR (R) 5
Serial1: LAPB O CONNECT (102) IFRAME 3 5
Serial1: LAPB I CONNECT (2) RR (R) 4
Serial1: LAPB I CONNECT (102) IFRAME 5 4
Serial1: LAPB O CONNECT (2) RR (R) 6
Serial1: LAPB O CONNECT (102) IFRAME 4 6
Serial1: LAPB I CONNECT (102) IFRAME 6 5
Serial1: LAPB O CONNECT (2) RR (R) 7
Serial1: LAPB O CONNECT (102) IFRAME 5 7
Serial1: LAPB I CONNECT (102) IFRAME 7 6
Serial1: LAPB O CONNECT (2) RR (R) 0

```

Exemplo 9-14 Configuração de Boston para o Cenário 9-2

```

hostname boston
ipx routing 0200.aaaa.aaaa
no ip domain-lookup
username Alaska password Larry
isdn switch-type basic-dms100
!
interface serial0
Encapsulation HDLC
ip address 200.1.5.5 255.255.255.252
ipx network 202
!
interface serial1
encapsulation hdlc
ip address 200.1.5.9 255.255.255.252
ipx network 203

```

```

!
interface bri0
encapsulation ppp
isdn spid1 1115551111
ip address 200.1.5.13 255.255.255.252
ipx network 204
ppp authentication chap
!
interface ethernet 0
ip address 200.1.1.1 255.255.255.0
ipx network 101
!
router igrp 1
network 200.1.1.0
network 200.1.5.0

```

Exemplo 9-15 Configuração de Podunk para o Cenário 9-2

```

hostname Podunk
ipx routing 0200.bbbb.bbbb
no ip domain-lookup
!
interface serial0
encapsulation hdlc
ip address 200.1.5.6 255.255.255.252
ipx network 202
!
interface ethernet 0
ip address 200.1.2.1 255.255.255.0
ipx network 102
!
router igrp 1
network 200.1.2.0
network 200.1.5.0

```

Exemplo 9-16 Configuração de Atlanta para o Cenário 9-2

```

hostname Atlanta
ipx routing 0200.cccc.cccc
no ip domain-lookup
!
interface serial0
encapsulation hdlc
ip address 200.1.5.10 255.255.255.252
ipx network 203
!
interface ethernet 0
ip address 200.1.3.1 255.255.255.0

```

```
ipx network 103
!
router igrp 1
network 200.1.3.0
network 200.1.5.0
```

Exemplo 9-17 Configuração de Alaska para o Cenário 9-2

```
hostname Alaska
no ip domain-lookup
ipx routing 0200.dddd.dddd
!
isdn switch-type basic-dms100
username Boston password Larry
!
interface BRI 0
encapsulation ppp
ip address 200.1.5.14 255.255.255.252
ipx network 204
isdn spid1 22255522220
ppp authentication chap
!
dialer-group 1
dialer idle-timeout 120
dialer map ip 200.1.5.13 name Boston 11115551111
!
interface ethernet 0
ip address 200.1.4.1 255.255.255.0
ipx network 104
!
router igrp 1
network 200.1.4.0
network 200.1.5.0
!
dialer-list 1 protocol ip permit
```