

For this lab section, refer to Figure 26-3 on page 916 of the book.

```
R6#sho run
Building configuration...

Current configuration : 3753 bytes
!
! Last configuration change at 08:06:30 UTC Sat Mar 15 2003
! NVRAM config last updated at 08:06:31 UTC Sat Mar 15 2003
!
version 12.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R6
!
!
username R8 password 0 cisco
aaa new-model
!
!
aaa authentication login default local
aaa authentication ppp default local
aaa session-id common
ip subnet-zero
!
!
isdn switch-type basic-ni
!
!
key chain ccie
  key 1
    key-string ccie
!
interface Loopback6
  description OSPF Loopback
  ip address 6.6.6.6 255.255.255.255
!
interface Loopback66
  ip address 140.100.86.1 255.255.255.224
!
interface Loopback666
  description BGP Loopback
  ip address 6.6.6.66 255.255.255.255
!
interface Tunnel0
  ip address 192.168.2.2 255.255.255.0
  no ip proxy-arp
  ip ospf authentication message-digest
```

```
ip ospf message-digest-key 5 md5 cisco
ip ospf mtu-ignore
tunnel source 130.100.26.6
tunnel destination 192.168.1.1
!
interface FastEthernet0/0
ip address 130.100.26.6 255.255.255.224
no ip proxy-arp
ip rip authentication mode md5
ip rip authentication key-chain ccie
speed 10
half-duplex
no cdp enable
!
interface BRI0/0
no ip address
encapsulation ppp
dialer pool-member 10
isdn switch-type basic-ni
isdn tei-negotiation first-call
isdn spid1 6661 6666
isdn spid2 6662 6666
ppp authentication chap
ppp multilink
!
interface Serial0/0
ip address 140.100.56.6 255.255.255.192
no ip proxy-arp
ip ospf authentication message-digest
ip ospf message-digest-key 5 md5 cisco
ip ospf network point-to-point
no cdp enable
!
interface Dialer1
ip address 172.22.85.2 255.255.255.0
encapsulation ppp
ip ospf cost 65535
ip ospf demand-circuit
dialer pool 10
dialer remote-name R8
dialer idle-timeout 45
dialer string 8888
dialer hold-queue 100
dialer-group 5
ppp authentication chap
ppp multilink
!
router ospf 123
router-id 6.6.6.6
log-adjacency-changes detail
area 56 authentication message-digest
area 56 virtual-link 5.5.5.5 authentication message-digest
area 56 virtual-link 5.5.5.5 message-digest-key 5 md5 cisco
area 86 authentication message-digest
```

```
network 6.6.6.6 0.0.0.0 area 56
network 140.100.56.0 0.0.0.63 area 56
network 172.22.85.0 0.0.0.255 area 86
network 192.168.2.0 0.0.0.255 area 86
!
router rip
version 2
redistribute ospf 123 metric 1
network 130.100.0.0
no auto-summary
!
router bgp 456
no synchronization
bgp router-id 6.6.6.6
bgp log-neighbor-changes
network 6.6.6.66 mask 255.255.255.255
network 130.100.86.0 mask 255.255.255.224
neighbor 140.100.56.5 remote-as 456
neighbor 140.100.56.5 next-hop-self
neighbor 192.168.2.1 remote-as 65000
no auto-summary
!
ip classless
ip route 192.168.1.0 255.255.255.0 130.100.26.2
!
dialer-list 5 protocol ip permit
!
!
call rsvp-sync
!
!
!
line con 0
exec-timeout 0 0
privilege level 15
line aux 0
line vty 0 4
privilege level 15
```

R6#debug dialer

Dial on demand events debugging is on

R6#config t

Enter configuration commands, one per line. End with
CNTL/Z.

R6(config)#**int tun 0**

R6(config-if)#**shut**

R6(config-if)#

06:52:77309411327: %DIALER-6-BIND: Interface BR0/0:1 bound
to profile Di0

Mar 15 08:19:18.409: %OSPF-5-ADJCHG: Process 123, Nbr
8.8.8.8 on Tunnel0 from FULL to DOWN, Neighbor Down:

Interface down

```
or detached
Mar 15 08:19:18.409: %BGP-5-ADJCHANGE: neighbor 192.168.2.1
Down Interface flap
Mar 15 08:19:18.945: BR0/0 DDR: rotor dialout [priority]
Mar 15 08:19:18.945: BR0/0 DDR: Dialing cause ip
(s=172.22.85.2, d=224.0.0.5)
Mar 15 08:19:18.945: BR0/0 DDR: Attempting to dial 8888
Mar 15 08:19:19.025: %LINK-3-UPDOWN: Interface BRI0/0:1,
changed state to up
Mar 15 08:19:19.029: BR0/0:1: interface must be fifo queue,
force fifo
Mar 15 08:19:19.029: %DIALER-6-BIND: Interface BR0/0:1 bound
to profile Di1
Mar 15 08:19:19.033: BR0/0:1 PPP: Using dialer call
direction
Mar 15 08:19:19.037: BR0/0:1 PPP: Treating connection as a
callout
Mar 15 08:19:19.037: BR0/0:1 PPP: Phase is
06:52:17: %LINK-3-UPDOWN: Interface BRI0/0:1, changed state
to up ESTABLISHING, Active Open
Mar 15 08:19:19.037: BR0/0:1 PPP: Authorization NOT required
Mar 15 08:19:19.037: BR0/0:1 LCP: O CONFREQ [Closed] id 102
len 24
Mar 15 08:19:19.037: BR0/0:1 LCP:      AuthProto CHAP
(0x0305C22305)
Mar 15 08:19:19.037: BR0/0:1 LCP:      MagicNumber 0xB0901B05
(0x0506B0901B05)
Mar 15 08:19:19.037: BR0/0:1 LCP:      MRRU 1524 (0x110405F4)
Mar 15 08:19:19.041: BR0/0:1 LCP:      EndpointDisc 1 R6
(0x1305017236)
Mar 15 08:19:19.053: BR0/0:1 LCP: I CONFREQ [REQsent] id 44
len 24
Mar 15 08:19:19.053: BR0/0:1 LCP:      AuthProto CHAP
(0x0305C22305)
Mar 15 08:19:19.053: BR0/0:1 LCP:      MagicNumber 0xB1DDE702
(0x0506B1DDE702)
Mar 15 08:19:19.053: BR0/0:1 LCP:      MRRU 1524 (0x110405F4)
Mar 15 08:19:19.057: BR0/0:1 LCP:      EndpointDisc 1 R8
(0x1305017238)
Mar 15 08:19:19.057: BR0/0:1 LCP: O CONFACK [REQsent] id 44
len 24
Mar 15 08:19:19.057: BR0/0:1 LCP:      AuthProto CHAP
(0x0305C223
06:52:18: %LINEPROTO-5-UPDOWN: Line protocol on Interface
BRI0/0:1, changed state to up05)
Mar 15 08:19:19.057: BR0/0:1 LCP:      MagicNumber 0xB1DDE702
(0x0506B1DDE702)
Mar 15 08:19:19.057: BR0/0:1 LCP:      MRRU 1524 (0x110405F4)
Mar 15 08:19:19.057: BR0/0:1 LCP:      EndpointDisc 1 R8
(0x1305017238)
Mar 15 08:19:19.061: BR0/0:1 LCP: I CONFACK [ACKsent] id 102
len 24
Mar 15 08:19:19.061: BR0/0:1 LCP:      AuthProto CHAP
(0x0305C22305)
```

```
Mar 15 08:19:19.061: BR0/0:1 LCP:      MagicNumber 0xB0901B05
(0x0506B0901B05)
Mar 15 08:19:19.061: BR0/0:1 LCP:      MRRU 1524 (0x110405F4)
Mar 15 08:19:19.061: BR0/0:1 LCP:      EndpointDisc 1 R6
(0x1305017236)
Mar 15 08:19:19.061: BR0/0:1 LCP: State is Open
Mar 15 08:19:19.061: BR0/0:1 PPP: Phase is AUTHENTICATING,
by both
Mar 15 08:19:19.065: BR0/0:1 CHAP: O CHALLENGE id 42 len 23
from "R6"
Mar 15 08:19:19.073: BR0/0:1 CHAP: I CHALLENGE id 42 len 23
from "R8"
Mar 15 08:19:19.073: AAA/AUTHEN/PPP (00000064): Pick method
list 'default'
Mar 15 08:19:19.077: BR0/0:1 CHAP: Using hostname from
unknown source
Mar 15 08:19:19.077: BR0/0:1 CHAP: Using password from AAA
Mar 15 08:19:19.077: BR0/0:1 CHAP: O RESPONSE id 42 len 23
from "R6"
Mar 15 08:19:19.093: BR0/0:1 CHAP: I SUCCESS id 42 len 4
Mar 15 08:19:19.097: BR0/0:1 CHAP: I RESPONSE id 42 len 23
from "R8"
Mar 15 08:19:19.097: BR0/0:1 PPP: Phase is FORWARDING,
Attempting Forward
Mar 15 08:19:19.101: BR0/0:1 PPP: Phase is AUTHENTICATING,
Unauthenticated User
Mar 15 08:19:19.101: AAA/AUTHEN/PPP (00000064): Pick method
list 'default'
Mar 15 08:19:19.101: BR0/0:1 PPP: Sent CHAP LOGIN Request
Mar 15 08:19:19.105: BR0/0:1 PPP: Received LOGIN Response
PASS
Mar 15 08:19:19.105: BR0/0:1 PPP: Phase is FORWARDING,
Attempting Forward
Mar 15 08:19:19.105: BR0/0:1 PPP: Phase is AUTHENTICATING,
Authenticated User
Mar 15 08:19:19.105: BR0/0:1 DDR: Remote name for R8
Mar 15 08:19:19.105: BR0/0:1 CHAP: O SUCCESS id 42 len 4
Mar 15 08:19:19.109: BR0/0:1 PPP: Phase is VIRTUALIZED
Mar 15 08:19:19.113: Di1 MLP: Added first link BR0/0:1 to
bundle R8
Mar 15 08:19:19.113: Di1 PPP: Using dialer call direction
Mar 15 08:19:19.113: Di1 PPP: Treating connection as a
callin
Mar 15 08:19:19.113: Di1 PPP: Phase is UP
Mar 15 08:19:19.113: Di1 IPCP: O CONFREQ [Closed] id 1 len
10
Mar 15 08:19:19.117: Di1 IPCP:      Address 172.22.85.2
(0x0306AC165502)
Mar 15 08:19:19.117: Di1 CDPCP: O CONFREQ [Closed] id 1 len
4
Mar 15 08:19:19.117: Di1 PPP: Process pending packets
Mar 15 08:19:19.117: BR0/0:1 PPP: Process pending packets
Mar 15 08:19:19.117: BR0/0:1 PPP: Process pending packets
```

```

Mar 15 08:19:19.121: Di1 IPCP: I CONFREQ [REQsent] id 1 len
10
Mar 15 08:19:19.121: Di1 IPCP:      Address 172.22.85.1
(0x0306AC165501)
Mar 15 08:19:19.121: Di1 IPCP: O CONFACK [REQsent] id 1 len
10
Mar 15 08:19:19.121: Di1 IPCP:      Address 172.22.85.1
(0x0306AC165501)
Mar 15 08:19:19.121: Di1 CDPCP: I CONFREQ [REQsent] id 1 len
4
Mar 15 08:19:19.125: Di1 CDPCP: O CONFACK [REQsent] id 1 len
4
Mar 15 08:19:19.125: Di1 IPCP: I CONFACK [ACKsent] id 1 len
10
Mar 15 08:19:19.125: Di1 IPCP:      Address 172.22.85.2
(0x0306AC165502)
Mar 15 08:19:19.129: Di1 IPCP: State is Open
Mar 15 08:19:19.129: Di1 CDPCP: I CONFACK [ACKsent] id 1 len
4
Mar 15 08:19:19.129: Di1 CDPCP: State is Open
Mar 15 08:19:19.129: Di1 IPCP: Install route to 172.22.85.1
Mar 15 08:19:19.133: Di1 IPCP: Add link info for cef entry
172.22.85.1
Mar 15 08:19:19.133: Di1 DDR: dialer protocol up
Mar 15 08:19:19.133: Di1 DDR: Call connected, 1 packets
unqueued, 1 transmitted, 0 discarded
Mar 15 08:1
06:52:22: %BGP-5-ADJCHANGE: neighbor 192.168.2.2 Down Peer
closed the session9:20.109: %LINEPROTO-5-UPDOWN: Line
protocol
on Interface BRI0/0:1, changed state to up
Mar 15 08:19:20.405: %LINK-5-CHANGED: Interface Tunnel0,
changed state to administratively down
Mar 15 08:19:21.406: %LINEPROTO-5-UPDOWN: Line protocol on
Interface Tunnel0, changed state to down
06:52:23: %ISDN-6-CONNECT: Interface BRI0/0:1 is now
connected to 6666 R6
Mar 15 08:19:25.030: %ISDN-6-CONNECT: Interface BRI0/0:1 is
now connected to 8888 R8

```

```

R6#sho ip route 8.8.8.8
Routing entry for 8.8.8.8/32
  Known via "ospf 123", distance 110, metric 65536, type
intra area
  Last update from 172.22.85.1 on Dialer1, 00:00:20 ago
  Routing Descriptor Blocks:
    * 172.22.85.1, from 8.8.8.8, 00:00:20 ago, via Dialer1
      Route metric is 65536, traffic share count is 1

R6#config t
Enter configuration commands, one per line.  End with
CNTL/Z.
R6(config)#int tun 0

```

```
R6(config-if)#no shut
```

```
R6(config-if)#
```

```
06:52:54: %OSPF-5-ADJCHG: Process 123, Nbr 6.6.6.6 on
Tunnell1 from FULL to INIT, 1-Way
Mar 15 08:19:58.206: %LINK-3-UPDOWN: Interface Tunnel0,
changed state to up
Mar 15 08:19:59.206: %LINEPROTO-5-UPDOWN: Line protocol on
Interface Tunnel0, changed state to up
06:53:01: %OSPF-5-ADJCHG: Process 123, Nbr 6.6.6.6 on
Tunnell1 from INIT to 2WAY, 2-Way Received
06:53:01: %OSPF-5-ADJCHG: Process 123, Nbr 6.6.6.6 on
Tunnell1 from 2WAY to EXSTART, AdjOK?
06:53:01: %OSPF-5-ADJCHG: Process 123, Nbr 6.6.6.6 on
Tunnell1 from EXSTART to EXCHANGE, Negotiation Done
06:53:01: %OSPF-5-ADJCHG: Process 123, Nbr 6.6.6.6 on
Tunnell1 from EXCHANGE to LOADING, Exchange Done
06:53:01: %OSPF-5-ADJCHG: Process 123, Nbr 6.6.6.6 on
Tunnell1 from LOADING to FULL, Loading Done
Mar 15 08:20:03.091: %OSPF-5-ADJCHG: Process 123, Nbr
8.8.8.8 on Tunnel0 from DOWN to INIT, Received Hello
Mar 15 08:20:03.091: %OSPF-5-ADJCHG: Process 123, Nbr
8.8.8.8 on Tunnel0 from INIT to 2WAY, 2-Way Received
Mar 15 08:20:03.091: %OSPF-5-ADJCHG: Process 123, Nbr
8.8.8.8 on Tunnel0 from 2WAY to EXSTART, AdjOK?
Mar 15 08:20:03.099: %OSPF-5-ADJCHG: Process 123, Nbr
8.8.8.8 on Tunnel0 from EXSTART to EXCHANGE, Negotiation
Done
Mar 15 08:20:03.115: %OSPF-5-ADJCHG: Process 123, Nbr
8.8.8.8 on Tunnel0 from EXCHANGE to LOADING, Exchange Done
Mar 15 08:20:03.115: %OSPF-5-ADJCHG: Process 123, Nbr
8.8.8.8 on Tunnel0 from LOADING to FULL, Loading Done
06:53:12: %BGP-5-ADJCHANGE: neighbor 192.168.2.2 Up
Mar 15 08:20:13.735: %BGP-5-ADJCHANGE: neighbor 192.168.2.1
Up
```

```
R6(config-if)#
```

```
R6#sho ip route 8.8.8.8
```

```
Mar 15 08:20:24.087: %SYS-5-CONFIG_I: Configured from
console by console
Routing entry for 8.8.8.8/32
  Known via "ospf 123", distance 110, metric 11112, type
intra area
  Last update from 192.168.2.1 on Tunnel0, 00:00:14 ago
  Routing Descriptor Blocks:
    * 192.168.2.1, from 8.8.8.8, 00:00:14 ago, via Tunnel0
      Route metric is 11112, traffic share count is 1
```

```
R6#sho dialer
```

```
BRI0/0 - 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.				

```

BRI0/0:1 - dialer type = ISDN
Idle timer (45 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=172.22.85.2, d=224.0.0.5)
Interface bound to profile Di1
Current call connected 00:01:15
Connected to 8888 (R8)

```

```

BRI0/0:2 - 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

```

```

Di1 - dialer type = DIALER PROFILE
Idle timer (45 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
8888	42	0	00:01:17	
successful	Default			
R6#				

```

06:53:204049578924: %ISDN-6-DISCONNECT: Interface BRI0/0:1
disconnected from 6666 R6, call lasted 89 seconds
06:53:204049579004: %LINK-3-UPDOWN: Interface BRI0/0:1,
changed state to down
Mar 15 08:20:48.688: Di1 DDR: idle timeout
Mar 15 08:20:48.688: Di1 PPP: Sending Acct Event[Down]
id[65]
Mar 15 08:20:48.688: Di1 DDR: disconnecting call
Mar 15 08:20:48.688: BR0/0:1 PPP: Sending Acct Event[Down]
id[64]
Mar 15 08:20:48.692: BR0/0:1 PPP: Phase is TERMINATING
Mar 15 08:20:48.692: BR0/0:1 LCP: O TERMREQ [Open] id 103
len 4
Mar 15 08:20:48.692: Di1 CDPCP: State is Closed
Mar 15 08:20:48.692: Di1 IPCP: Remove link info for cef
entry 172.22.85.1
Mar 15 08:20:48.696: Di1 IPCP: State is Closed
Mar 15 08:20:48.696: Di1 BACP: State is Closed
Mar 15 08:20:48.696: Di1 PPP: Phase is TERMINATING
Mar 15 08:20:48.696: Di1 LCP: State is Closed
Mar 15 08:20:48.696: Di1 PPP: Phase is DOWN

```



```

Mar 15 08:20:48.696: Di1 DDR is disconnecting, could not
clear in
06:53:201863462944: %DIALER-6-UNBIND: Interface BR0/0:1
unbound from profile Di0terface.
Mar 15 08:20:48.700: Di1 IPCP: Remove route to 172.22.85.1
Mar 15 08:20:48.700: BR0/0:1 LCP: I TERMACK [TERMsent] id
103 len 4
Mar 15 08:20:48.700: BR0/0:1 LCP: State is Closed
Mar 15 08:20:48.700: BR0/0:1 PPP: Phase is DOWN
Mar 15 08:20:48.700: BR0/0:1 DDR: disconnecting call
Mar 15 08:20:48.704: BR0/0:1 PPP: Phase is ESTABLISHING,
Passive Open
Mar 15 08:20:48.704: BR0/0:1 LCP: State is Listen
Mar 15 08:20:48.704: %ISDN-6-DISCONNECT: Interface BRI0/0:1
disconnected from 8888 R8, call lasted 89 seconds
Mar 15 08:20:48.760: %LINK-3-UPDOWN: Interface BRI0/0:1,
changed state to down
Mar 15 08:20:48.760: BR0/0:1 PPP: Authorization NOT required
Mar 15 08:20:48.764: BR0/0:1 PPP: No remote authentication
for call-out
Mar 15 08:20:48.764: BR0/0 DDR: has total 0 call(s),
dial_out 0, dial_in 0
Mar 15 08:20:48.764: %DIALER-6-UNBIND: Inte
06:53:48: %LINEPROTO-5-UPDOWN: Line protocol on Interface
BRI0/0:1, changed state to downrface BR0/0:1 unbound from
profil
e Di1
Mar 15 08:20:48.768: BR0/0:1 PPP: Sending Acct Event[Down]
id[66]
Mar 15 08:20:48.768: BR0/0:1 LCP: State is Closed
Mar 15 08:20:48.768: BR0/0:1 PPP: Phase is DOWN
Mar 15 08:20:48.772: BR0/0:1 DDR: disconnecting call
Mar 15 08:20:49.692: %LINEPROTO-5-UPDOWN: Line protocol on
Interface BRI0/0:1, changed state to down

```

```

R6#sho ip ospf interface dialer 1
Dialer1 is up, line protocol is up (spoofing)
Internet Addre
06:54:28: %LINEPROTO-5-UPDOWN: Line protocol on Interface
FastEthernet0/0, changed state to upss 172.22.85.2/24, Area
86
Process ID 123, Router ID 6.6.6.6, Network Type
POINT_TO_POINT, Cost: 65535
Configured as demand circuit.
Run as demand circuit.
DoNotAge LSA allowed.
Transmit Delay is 1 sec, State POINT_TO_POINT,
Timer intervals configured, Hello 10, Dead 40, Wait 40,
Retransmit 5
Hello due in 00:00:06
Index 1/4, flood queue length 0
Next 0x0(0)/0x0(0)
Last flood scan length is 1, maximum is 15

```

```
Last flood scan time is 0 msec, maximum is 4 msec
Neighbor Count is 1, Adjacent neighbor count is 1
  Adjacent with neighbor 8.8.8.8 (Hello suppressed)
Suppress hello for 1 neighbor(s)
Message digest authentication enabled
  No key configured, using default key id 0
```

```
R8#sho run
Building configuration...

Current configuration : 5535 bytes
!
! Last configuration change at 22:57:24 PST Sun Feb 28 1993
! NVRAM config last updated at 22:11:27 PST Sun Feb 28 1993
!
version 12.2
service timestamps debug uptime
service timestamps log uptime
service password-encryption
!
hostname R8
aaa new-model
aaa authentication ppp default local
aaa authorization network default local
!
!
enable password 7 05080F1C2243
!
username R6 password 7 cisco
username R8 password 7 cisco
ip subnet-zero
!
!
isdn switch-type basic-ni
!
!
key chain ccie
  key 1
    key-string 7 0307580203
!
interface Loopback8
  description OSPF Loopback
  ip address 8.8.8.8 255.255.255.255
  ip broadcast-address 8.8.8.8
!
interface Loopback88
  description BGP Loopback
  ip address 8.8.8.88 255.255.255.255
!
interface Tunnell
  ip address 192.168.2.1 255.255.255.0
```

```
ip broadcast-address 192.168.2.255
ip ospf authentication message-digest
ip ospf message-digest-key 5 md5 7 045802150C2E
ip ospf mtu-ignore
tunnel source 192.168.1.1
tunnel destination 130.100.26.6
!
!
interface BRI0/0
no ip address
encapsulation ppp
ip ospf cost 1
dialer pool-member 1
isdn switch-type basic-ni
isdn spid1 8881 8888
isdn spid2 8882 8888
ppp authentication chap
ppp multilink
!
!
interface FastEthernet0/1
ip address 192.168.1.1 255.255.255.0
ip nat inside
ip rip send version 1
ip rip receive version 1
no ip route-cache
no ip mroute-cache
duplex auto
speed auto
no cdp enable
!
interface Dialer0
ip address 172.22.85.1 255.255.255.0
encapsulation ppp
ip ospf cost 65535
dialer pool 1
dialer remote-name R6
dialer-group 5
dialer enable-timeout 5 ppp authentication chap
ppp multilink
!
router ospf 123
router-id 8.8.8.8
log-adjacency-changes detail
area 86 authentication message-digest
network 8.8.8.8 0.0.0.0 area 86
network 172.22.85.0 0.0.0.255 area 86
network 192.168.2.0 0.0.0.255 area 86
!
router rip
version 1
network 192.168.1.0
network 199.199.199.0
no auto-summary
```

```
!  
router bgp 65000  
  no synchronization  
  bgp router-id 8.8.8.8  
  bgp log-neighbor-changes  
  network 8.8.8.88 mask 255.255.255.255  
  redistribute connected route-map loop  
  neighbor 192.168.2.2 remote-as 456  
  no auto-summary  
!  
!  
dialer-list 5 protocol ip permit  
!  
line con 0  
  exec-timeout 0 0  
  privilege level 15  
  speed 115200  
end
```

```
R8# sho ip route os  
      1.0.0.0/32 is subnetted, 2 subnets  
O IA      1.1.1.1 [110/11368] via 192.168.2.2, 00:12:21,  
Tunnell1  
      2.0.0.0/32 is subnetted, 2 subnets  
O IA      2.2.2.2 [110/11368] via 192.168.2.2, 00:12:21,  
Tunnell1  
      3.0.0.0/32 is subnetted, 4 subnets  
O IA      3.3.3.3 [110/11304] via 192.168.2.2, 00:12:21,  
Tunnell1  
O E2      3.3.3.13 [110/20] via 192.168.2.2, 00:12:21, Tunnell1  
O E2      3.3.3.23 [110/20] via 192.168.2.2, 00:12:21, Tunnell1  
      4.0.0.0/32 is subnetted, 2 subnets  
O IA      4.4.4.4 [110/11240] via 192.168.2.2, 00:12:21,  
Tunnell1  
      140.100.0.0/16 is variably subnetted, 4 subnets, 2  
masks  
O IA      140.100.45.0/26 [110/11239] via 192.168.2.2,  
00:12:21, Tunnell1  
O IA      140.100.56.0/26 [110/11175] via 192.168.2.2,  
00:12:21, Tunnell1  
O E2      140.100.9.0/27 [110/20] via 192.168.2.2, 00:12:21,  
Tunnell1  
      5.0.0.0/32 is subnetted, 2 subnets  
O IA      5.5.5.5 [110/11176] via 192.168.2.2, 00:12:21,  
Tunnell1  
      6.0.0.0/8 is variably subnetted, 3 subnets, 2 masks  
O IA      6.6.6.6/32 [110/11112] via 192.168.2.2, 00:12:21,  
Tunnell1  
      67.0.0.0/24 is subnetted, 1 subnets  
O E2      67.67.67.0 [110/20] via 192.168.2.2, 00:12:21,  
Tunnell1  
      130.100.0.0/24 is subnetted, 2 subnets
```

```
O E2    130.100.55.0 [110/20] via 192.168.2.2, 00:12:21,
Tunnell
    150.100.0.0/16 is variably subnetted, 3 subnets, 3
masks
O IA     150.100.32.0/27 [110/11367] via 192.168.2.2,
00:12:21, Tunnell
O IA     150.100.33.0/29 [110/11303] via 192.168.2.2,
00:12:21, Tunnell
O IA     150.100.31.0/28 [110/11367] via 192.168.2.2,
00:12:21, Tunnell
```

R8#config t

Enter configuration commands, one per line. End with
CNTL/Z.

R8(config)#**int tun 1**

R8(config-if)#**shut**

R8(config-if)#

07:05:45: %OSPF-5-ADJCHG: Process 123, Nbr 6.6.6.6 on
Tunnell from FULL to DOWN, Neighbor Down: Interface down or
detached

07:05:45: %BGP-5-ADJCHANGE: neighbor 192.168.2.2 Down
Interface flap

07:05:47: %LINK-5-CHANGED: Interface Tunnell, changed state
to administratively down

07:05:48: %LINEPROTO-5-UPDOWN: Line protocol on Interface
Tunnell, changed state to down

07:06:98784247807: %DIALER-6-BIND: Interface BR0/0:1 bound
to profile Di0

07:06:22: %LINK-3-UPDOWN: Interface BRI0/0:1, changed state
to up

07:06:23: %LINEPROTO-5-UPDOWN: Line protocol on Interface
BRI0/0:1, changed state to up

07:06:28: %ISDN-6-CONNECT: Interface BRI0/0:1 is now
connected to 6666 R6

R8(config-if)#

R8#show ip route os

1.0.0.0/32 is subnetted, 1 subnets

O IA 1.1.1.1 [110/65792] via 172.22.85.2, 00:00:41,
Dialer0

2.0.0.0/32 is subnetted, 1 subnets

O IA 2.2.2.2 [110/65792] via 172.22.85.2, 00:00:41,
Dialer0

3.0.0.0/32 is subnetted, 3 subnets

O IA 3.3.3.3 [110/65728] via 172.22.85.2, 00:00:41,
Dialer0

O E2 3.3.3.13 [110/20] via 172.22.85.2, 00:00:41, Dialer0

O E2 3.3.3.23 [110/20] via 172.22.85.2, 00:00:41, Dialer0

4.0.0.0/32 is subnetted, 1 subnets

O IA 4.4.4.4 [110/65664] via 172.22.85.2, 00:00:41,
Dialer0

```
140.100.0.0/16 is variably subnetted, 3 subnets, 2
masks
O IA    140.100.45.0/26 [110/65663] via 172.22.85.2,
00:00:41, Dialer0
O IA    140.100.56.0/26 [110/65599] via 172.22.85.2,
00:00:41, Dialer0
O E2    140.100.9.0/27 [110/20] via 172.22.85.2, 00:00:41,
Dialer0
5.0.0.0/32 is subnetted, 2 subnets
O IA    5.5.5.5 [110/65600] via 172.22.85.2, 00:00:41,
Dialer0
O IA    5.5.5.55 [110/65600] via 172.22.85.2, 00:00:41,
Dialer0
6.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
O IA    6.6.6.6/32 [110/65536] via 172.22.85.2, 00:00:41,
Dialer0
67.0.0.0/24 is subnetted, 1 subnets
O E2    67.67.67.0 [110/20] via 172.22.85.2, 00:00:41,
Dialer0
130.100.0.0/24 is subnetted, 2 subnets
O E2    130.100.55.0 [110/20] via 172.22.85.2, 00:00:41,
Dialer0
O       192.168.2.0/24 [110/76646] via 172.22.85.2, 00:00:42,
Dialer0
150.100.0.0/16 is variably subnetted, 3 subnets, 3
masks
O IA    150.100.32.0/27 [110/65791] via 172.22.85.2,
00:00:42, Dialer0
O IA    150.100.33.0/29 [110/65727] via 172.22.85.2,
00:00:42, Dialer0
O IA    150.100.31.0/28 [110/65791] via 172.22.85.2,
00:00:42, Dialer0
```