

For this lab section, refer to Figure 26-2 on page 912 of the book.

### Steps 1 through 11

```
R1#sho run
Building configuration...

Current configuration : 1694 bytes
!
version 12.2
service timestamps debug datetime msec localtime
service timestamps log datetime msec localtime
service password-encryption
!
hostname R1
!
enable secret 5 $1$1xxK$LWh42sY9aO17mvAuehLPM.
!
ip subnet-zero
no ip domain-lookup
!
!
!
interface Loopback10
  description BGP Loopback
  ip address 1.1.1.11 255.255.255.255
!
interface Serial0
  ip address 150.100.31.1 255.255.255.240
  encapsulation frame-relay
traffic-shape rate 512000 12800 12800 1000
  traffic-shape adaptive 32000
  frame-relay map ip 150.100.31.3 101 broadcast
  frame-relay lmi-type ansi
!
router bgp 1
  no synchronization
  bgp router-id 1.1.1.1
  bgp log-neighbor-changes
  bgp confederation identifier 1234
  bgp confederation peers 2 3
  network 1.1.1.11 mask 255.255.255.255
  neighbor 150.100.31.3 remote-as 3
  no auto-summary
!
ip classless
ip http server
ip pim bidir-enable
!
line con 0
  exec-timeout 0 0
  logging synchronous
```

```
line aux 0
line vty 0 4
  logging synchronous
  login
!
end
```

```
R1#sho ip route bgp
 17.0.0.0/24 is subnetted, 1 subnets
B    17.1.1.0 [200/0] via 150.100.31.3, 00:04:19
 2.0.0.0/32 is subnetted, 2 subnets
B    2.2.2.22 [200/0] via 150.100.31.3, 00:04:19
 3.0.0.0/32 is subnetted, 4 subnets
B    3.3.3.33 [200/0] via 150.100.31.3, 00:04:19
 4.0.0.0/32 is subnetted, 2 subnets
B    4.4.4.44 [200/0] via 150.100.31.3, 00:04:19
140.100.0.0/16 is variably subnetted, 4 subnets, 2 masks
B    140.100.86.0/27 [200/0] via 150.100.31.3, 00:04:19
B    140.100.47.0/26 [200/0] via 150.100.31.3, 00:04:19
 5.0.0.0/32 is subnetted, 2 subnets
B    5.5.5.55 [200/0] via 150.100.31.3, 00:04:19
156.46.0.0/16 is variably subnetted, 5 subnets, 2 masks
B    156.46.2.0/24 [200/0] via 150.100.31.3, 00:04:19
B    156.46.3.0/24 [200/0] via 150.100.31.3, 00:04:19
B    156.46.1.0/24 [200/0] via 150.100.31.3, 00:04:19
B    156.46.4.0/24 [200/0] via 150.100.31.3, 00:04:19
B    156.46.100.0/22 [200/0] via 150.100.31.3, 00:04:19
 6.0.0.0/32 is subnetted, 1 subnets
B    6.6.6.66 [200/0] via 150.100.31.3, 00:04:20
37.0.0.0/24 is subnetted, 1 subnets
B    37.1.1.0 [200/0] via 150.100.31.3, 00:04:20
 7.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
B    7.7.7.7/32 [200/0] via 150.100.31.3, 00:04:20
B    7.1.1.0/24 [200/0] via 150.100.31.3, 00:04:20
 8.0.0.0/32 is subnetted, 2 subnets
B    8.8.8.88 [200/0] via 150.100.31.3, 00:04:20
 9.0.0.0/32 is subnetted, 1 subnets
B    9.9.9.9 [200/0] via 150.100.31.3, 00:03:04
10.0.0.0/24 is subnetted, 1 subnets
B    10.1.1.0 [200/0] via 150.100.31.3, 00:03:04
27.0.0.0/24 is subnetted, 1 subnets
B    27.1.1.0 [200/0] via 150.100.31.3, 00:04:20
B    209.112.0.0/16 [200/0] via 150.100.31.3, 00:04:20
```

```
R1#sho ip bgp
BGP table version is 1287, local router ID is 1.1.1.1
Status codes: s suppressed, d damped, h history, * valid, > best,
i - internal
Origin codes: i - IGP, e - EGP, ? - incomplete
```

Network	Next Hop	Metric	LocPrf	Weight	Path
*> 1.1.1.11/32	0.0.0.0	0		32768	i

i	*> 2.2.2.22/32	150.100.31.3	0	100	0 (3 2)
	*> 3.3.3.33/32	150.100.31.3	0	100	0 (3) i
	*> 4.4.4.44/32	150.100.31.3	0	100	0 (3)
456 i	*> 5.5.5.55/32	150.100.31.3		100	0 (3)
456 i	*> 6.6.6.66/32	150.100.31.3		100	0 (3)
456 i	*> 7.1.1.0/24	150.100.31.3		100	0 (3)
456 1560 i	*> 7.7.7.7/32	150.100.31.3		100	0 (3)
456 1560 i	*> 8.8.8.88/32	150.100.31.3		100	0 (3)
456 65000 i	*> 9.9.9.9/32	150.100.31.3	0	100	0 (3) 9
93 i	*> 10.1.1.0/24	150.100.31.3	0	100	0 (3) 9
93 i	*> 17.1.1.0/24	150.100.31.3		100	0 (3)
456 1560 i	*> 27.1.1.0/24	150.100.31.3		100	0 (3)
456 1560 i	*> 37.1.1.0/24	150.100.31.3		100	0 (3)
456 1560 i	*> 140.100.47.0/26	150.100.31.3	0	100	0 (3)
456 i	*> 140.100.86.0/27	150.100.31.3		100	0 (3)
456 i	*> 156.46.1.0/24	150.100.31.3		100	0 (3)
456 1560 i	*> 156.46.2.0/24	150.100.31.3		100	0 (3)
456 1560 i	*> 156.46.3.0/24	150.100.31.3		100	0 (3)
456 1560 i	*> 156.46.4.0/24	150.100.31.3		100	0 (3)
456 1560 i	*> 156.46.100.0/22	150.100.31.3		100	0 (3)
456 1560 i	*> 209.112.0.0/16	150.100.31.3		100	0 (3)
456 i					

R1#ping 2.2.2.22

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 2.2.2.22, timeout is 2 seconds:  
!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max =  
104/105/112 ms

R1#ping 3.3.3.33

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 3.3.3.33, timeout is 2 seconds:

```

!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
48/48/48 ms
R1#ping 4.4.4.44

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 4.4.4.44, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
104/104/108 ms
R1#ping 5.5.5.55

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 5.5.5.55, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
132/133/140 ms
R1#ping 6.6.6.66

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 6.6.6.66, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
156/169/220 ms
R1#ping 7.7.7.7

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 7.7.7.7, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
104/105/108 ms
R1#ping 8.8.8.88

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.88, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
156/160/164 ms

```

```

R1#sho ip bgp su
BGP router identifier 1.1.1.1, local AS number 1
BGP table version is 1287, main routing table version 1287
22 network entries and 22 paths using 2926 bytes of memory
9 BGP path attribute entries using 540 bytes of memory
6 BGP AS-PATH entries using 144 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
BGP activity 251/535 prefixes, 815/793 paths, scan interval 60
secs

Neighbor      V      AS MsgRcvd MsgSent   TblVer  InQ  OutQ Up/Down
State/PfxRcd

```

150.100.31.3	4	3	2246	1955	1287	0	0
00:05:54	21						
R1#							

```
R2#sho run
Building configuration...

Current configuration : 1629 bytes
!
version 12.2
service timestamps debug datetime msec localtime
service timestamps log datetime msec localtime
service password-encryption
!
hostname R2
!
enable secret 5 $1$0iDj$4.39veJ97UQ7La4nOLLiC0
!
ip subnet-zero
no ip domain-lookup
!
!
!
!
interface Loopback22
  description BGP Loopback
  ip address 2.2.2.22 255.255.255.255
!
interface Serial0
  ip address 150.100.32.2 255.255.255.224
  encapsulation frame-relay
frame-relay map ip 150.100.32.3 202 broadcast
!
!
router bgp 2
  bgp router-id 2.2.2.2
  bgp log-neighbor-changes
  bgp confederation identifier 1234
  bgp confederation peers 1 3
  network 2.2.2.22 mask 255.255.255.255
  neighbor 150.100.32.3 remote-as 3
  neighbor 150.100.32.3 description R3
!
ip classless
!
!
line con 0
  exec-timeout 0 0
  logging synchronous
line aux 0
line vty 0 4
```

```
logging synchronous
login
!
end
```

```
R2#sho ip route bgp
17.0.0.0/24 is subnetted, 1 subnets
B    17.1.1.0 [200/0] via 150.100.32.3, 00:10:58
1.0.0.0/32 is subnetted, 2 subnets
B    1.1.1.11 [200/0] via 150.100.32.3, 00:10:58
3.0.0.0/32 is subnetted, 4 subnets
B    3.3.3.33 [200/0] via 150.100.32.3, 00:10:58
4.0.0.0/32 is subnetted, 2 subnets
B    4.4.4.44 [200/0] via 150.100.32.3, 00:10:58
140.100.0.0/16 is variably subnetted, 4 subnets, 2 masks
B    140.100.86.0/27 [200/0] via 150.100.32.3, 00:10:58
B    140.100.47.0/26 [200/0] via 150.100.32.3, 00:10:58
156.46.0.0/16 is variably subnetted, 5 subnets, 2 masks
B    156.46.2.0/24 [200/0] via 150.100.32.3, 00:10:58
B    156.46.3.0/24 [200/0] via 150.100.32.3, 00:10:58
B    156.46.1.0/24 [200/0] via 150.100.32.3, 00:10:58
B    156.46.4.0/24 [200/0] via 150.100.32.3, 00:10:58
B    156.46.100.0/22 [200/0] via 150.100.32.3, 00:10:59
6.0.0.0/32 is subnetted, 2 subnets
B    6.6.6.66 [200/0] via 150.100.32.3, 00:10:58
37.0.0.0/24 is subnetted, 1 subnets
B    37.1.1.0 [200/0] via 150.100.32.3, 00:11:00
7.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
B    7.7.7.7/32 [200/0] via 150.100.32.3, 00:11:00
B    7.1.1.0/24 [200/0] via 150.100.32.3, 00:11:00
8.0.0.0/32 is subnetted, 2 subnets
B    8.8.8.88 [200/0] via 150.100.32.3, 00:10:59
9.0.0.0/32 is subnetted, 1 subnets
B    9.9.9.9 [200/0] via 150.100.32.3, 00:09:43
10.0.0.0/24 is subnetted, 1 subnets
B    10.1.1.0 [200/0] via 150.100.32.3, 00:09:43
27.0.0.0/24 is subnetted, 1 subnets
B    27.1.1.0 [200/0] via 150.100.32.3, 00:11:00
B    209.112.0.0/16 [200/0] via 150.100.32.3, 00:10:59
```

```
R2#sho ip bgp
BGP table version is 84, local router ID is 2.2.2.2
Status codes: s suppressed, d damped, h history, * valid, > best,
i - internal
Origin codes: i - IGP, e - EGP, ? - incomplete

   Network          Next Hop           Metric LocPrf Weight Path
*> 1.1.1.11/32      150.100.32.3           0      100         0 (3 1)
i
*> 2.2.2.22/32      0.0.0.0                0              32768 i
*> 3.3.3.33/32      150.100.32.3           0      100         0 (3) i
*> 4.4.4.44/32      150.100.32.3           0      100         0 (3)
456 i
```

	*> 5.5.5.55/32	150.100.32.3		100	0 (3)
456	i				
	*> 6.6.6.66/32	150.100.32.3		100	0 (3)
456	i				
	*> 7.1.1.0/24	150.100.32.3		100	0 (3)
456	1560 i				
	*> 7.7.7.7/32	150.100.32.3		100	0 (3)
456	1560 i				
	*> 8.8.8.88/32	150.100.32.3		100	0 (3)
456	65000 i				
	*> 9.9.9.9/32	150.100.32.3	0	100	0 (3) 9
93	i				
	*> 10.1.1.0/24	150.100.32.3	0	100	0 (3) 9
93	i				
	*> 17.1.1.0/24	150.100.32.3		100	0 (3)
456	1560 i				
	*> 27.1.1.0/24	150.100.32.3		100	0 (3)
456	1560 i				
	*> 37.1.1.0/24	150.100.32.3		100	0 (3)
456	1560 i				
	*> 140.100.47.0/26	150.100.32.3	0	100	0 (3)
456	i				
	*> 140.100.86.0/27	150.100.32.3		100	0 (3)
456	i				
	*> 156.46.1.0/24	150.100.32.3		100	0 (3)
456	1560 i				
	*> 156.46.2.0/24	150.100.32.3		100	0 (3)
456	1560 i				
	*> 156.46.3.0/24	150.100.32.3		100	0 (3)
456	1560 i				
	*> 156.46.4.0/24	150.100.32.3		100	0 (3)
456	1560 i				
	*> 156.46.100.0/22	150.100.32.3		100	0 (3)
456	1560 i				
	*> 209.112.0.0/16	150.100.32.3		100	0 (3)
456	i				

```

R2#ping 1.1.1.11

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 1.1.1.11, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
104/104/108 ms
R2#ping 2.2.2.22

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2.2.2.22, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/4
ms
R2#ping 3.3.3.33

```

```
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 3.3.3.33, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
60/62/64 ms
R2#ping 4.4.4.44

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 4.4.4.44, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
116/120/124 ms
R2#ping 5.5.5.55

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 5.5.5.55, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
144/146/152 ms
R2#ping 6.6.6.66

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 6.6.6.66, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
168/171/172 ms
R2#ping 7.7.7.7

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 7.7.7.7, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
120/133/188 ms
R2#ping 8.8.8.88

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.88, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
172/175/184 ms
^
```

```
R2#sho ip bgp su
BGP router identifier 2.2.2.2, local AS number 2
BGP table version is 84, main routing table version 84
22 network entries and 22 paths using 2926 bytes of memory
9 BGP path attribute entries using 540 bytes of memory
6 BGP AS-PATH entries using 144 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
BGP activity 52/118 prefixes, 52/30 paths, scan interval 60 secs
```



Neighbor State/PfxRcd	V	AS	MsgRcvd	MsgSent	TblVer	InQ	OutQ	Up/Down
150.100.32.3	4	3	75	52	84	0	0	
00:12:42	21							
R2#								

R3#**sho run**

Building configuration...

Current configuration : 3428 bytes

!

version 12.2

service timestamps debug datetime msec localtime

service timestamps log datetime msec localtime

no service password-encryption

!

hostname R3

!

!

ip subnet-zero

no ip domain-lookup

!

!

!

!

interface Loopback33

description BGP Loopback

ip address 3.3.3.33 255.255.255.255

!

interface Ethernet0

ip address 130.100.1.3 255.255.255.0

!

interface Serial0

no ip address

encapsulation frame-relay

no fair-queue

frame-relay lmi-type ansi

!

interface Serial0.1 point-to-point

description To R1

ip address 150.100.31.3 255.255.255.240

traffic-shape rate 64000 8000 8000 1000

traffic-shape adaptive 32000

frame-relay interface-dlci 301

!

interface Serial0.2 point-to-point

description To R2

ip address 150.100.32.3 255.255.255.224

frame-relay interface-dlci 302

!

interface Serial0.3 point-to-point

description To R4

```

ip address 150.100.33.3 255.255.255.248

frame-relay interface-dlci 304
!
router bgp 3
no synchronization
bgp router-id 3.3.3.3
bgp log-neighbor-changes
bgp confederation identifier 1234
bgp confederation peers 1 2
network 3.3.3.33 mask 255.255.255.255
neighbor 10.1.1.9 remote-as 9
neighbor 10.1.1.9 description R9_->PIX
neighbor 10.1.1.9 ebgp-multihop 2
neighbor 10.1.1.9 next-hop-self
neighbor 150.100.31.1 remote-as 1
neighbor 150.100.31.1 description To R1
neighbor 150.100.31.1 next-hop-self
neighbor 150.100.32.2 remote-as 2
neighbor 150.100.32.2 description To R2
neighbor 150.100.32.2 next-hop-self
neighbor 150.100.33.4 remote-as 456
neighbor 150.100.33.4 description To R4
neighbor 150.100.33.4 next-hop-self
no auto-summary
!
ip classless
ip route 10.1.1.0 255.255.255.0 130.100.1.1
!
!
line con 0
exec-timeout 0 0
privilege level 15
logging synchronous
line aux 0
line vty 0 4
logging synchronous
login
!
end

```

```

R3#sho ip route bgp
    17.0.0.0/24 is subnetted, 1 subnets
B       17.1.1.0 [20/0] via 150.100.33.4, 00:15:27
    1.0.0.0/32 is subnetted, 2 subnets
B       1.1.1.11 [200/0] via 150.100.31.1, 00:15:27
    2.0.0.0/32 is subnetted, 2 subnets
B       2.2.2.22 [200/0] via 150.100.32.2, 00:15:27
    4.0.0.0/32 is subnetted, 2 subnets
B       4.4.4.44 [20/0] via 150.100.33.4, 00:15:27
    140.100.0.0/16 is variably subnetted, 4 subnets, 2 masks
B       140.100.86.0/27 [20/0] via 150.100.33.4, 00:15:27
B       140.100.47.0/26 [20/0] via 150.100.33.4, 00:15:27

```

```

B      5.0.0.0/32 is subnetted, 2 subnets
      5.5.5.55 [20/0] via 150.100.33.4, 00:15:27
      156.46.0.0/16 is variably subnetted, 5 subnets, 2 masks
B      156.46.2.0/24 [20/0] via 150.100.33.4, 00:15:27
B      156.46.3.0/24 [20/0] via 150.100.33.4, 00:15:27
B      156.46.1.0/24 [20/0] via 150.100.33.4, 00:15:27
B      156.46.4.0/24 [20/0] via 150.100.33.4, 00:15:27
B      156.46.100.0/22 [20/0] via 150.100.33.4, 00:15:27
      6.0.0.0/32 is subnetted, 2 subnets
B      6.6.6.66 [20/0] via 150.100.33.4, 00:15:28
      37.0.0.0/24 is subnetted, 1 subnets
B      37.1.1.0 [20/0] via 150.100.33.4, 00:15:28
      7.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
B      7.7.7.7/32 [20/0] via 150.100.33.4, 00:15:28
B      7.1.1.0/24 [20/0] via 150.100.33.4, 00:15:28
      8.0.0.0/32 is subnetted, 2 subnets
B      8.8.8.88 [20/0] via 150.100.33.4, 00:15:28
      9.0.0.0/32 is subnetted, 1 subnets
B      9.9.9.9 [20/0] via 10.1.1.9, 00:14:11
      27.0.0.0/24 is subnetted, 1 subnets
B      27.1.1.0 [20/0] via 150.100.33.4, 00:15:28
B      209.112.0.0/16 [20/0] via 150.100.33.4, 00:15:28

```

### R3#sho ip bgp

BGP table version is 23, local router ID is 3.3.3.3

Status codes: s suppressed, d damped, h history, \* valid, > best,

i - internal

Origin codes: i - IGP, e - EGP, ? - incomplete

	Network	Next Hop	Metric	LocPrf	Weight	Path
*>	1.1.1.11/32	150.100.31.1	0	100	0	(1) i
*>	2.2.2.22/32	150.100.32.2	0	100	0	(2) i
*>	3.3.3.33/32	0.0.0.0	0		32768	i
*>	4.4.4.44/32	150.100.33.4	0		0	456 i
*>	5.5.5.55/32	150.100.33.4			0	456 i
*>	6.6.6.66/32	150.100.33.4			0	456 i
*>	7.1.1.0/24	150.100.33.4			0	456
1560 i	*>	7.7.7.7/32			0	456
1560 i	*>	8.8.8.88/32			0	456
65000 i	*>	9.9.9.9/32	10.1.1.9	0	0	9 93
i	*>	10.1.1.0/24	10.1.1.9	0	0	9 93
i	*>	17.1.1.0/24	150.100.33.4		0	456
1560 i	*>	27.1.1.0/24	150.100.33.4		0	456
1560 i	*>	37.1.1.0/24	150.100.33.4		0	456
1560 i	*>	140.100.47.0/26	150.100.33.4	0	0	456 i

```

*> 140.100.86.0/27 150.100.33.4 0 456 i
*> 156.46.1.0/24 150.100.33.4 0 456
1560 i
*> 156.46.2.0/24 150.100.33.4 0 456
1560 i
Network Next Hop Metric LocPrf Weight Path
*> 156.46.3.0/24 150.100.33.4 0 456
1560 i
*> 156.46.4.0/24 150.100.33.4 0 456
1560 i
*> 156.46.100.0/22 150.100.33.4 0 456
1560 i
*> 209.112.0.0/16 150.100.33.4 0 456 i

```

```

R3#ping 1.1.1.11
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 1.1.1.11, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
48/48/52 ms
R3#ping 2.2.2.22
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2.2.2.22, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
60/61/64 ms
R3#ping 3.3.3.33
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 3.3.3.33, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/8
ms
R3#ping 4.4.4.44
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 4.4.4.44, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
60/65/84 ms
R3#ping 5.5.5.55
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 5.5.5.55, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
124/188/208 ms
R3#ping 6.6.6.66
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 6.6.6.66, timeout is 2 seconds:

```

```

!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
112/116/120 ms
R3#ping 7.7.7.7

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 7.7.7.7, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
60/61/64 ms
R3#ping 8.8.8.88

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.88, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
116/116/120 ms
R3#ping 9.9.9.9

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 9.9.9.9, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/8
ms

```

```

R3#sho ip bgp summary
BGP router identifier 3.3.3.3, local AS number 3
BGP table version is 23, main routing table version 23
22 network entries and 22 paths using 2926 bytes of memory
9 BGP path attribute entries using 540 bytes of memory
6 BGP AS-PATH entries using 144 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
BGP activity 261/707 prefixes, 540/518 paths, scan interval 60
secs

Neighbor      V      AS MsgRcvd MsgSent   TblVer  InQ  OutQ Up/Down
State/PfxRcd
 10.1.1.9      4        9   1784   2349       23    0    0
00:26:00      2
 150.100.31.1  4        1   1973   2269       23    1    0
00:28:00      1
 150.100.32.2  4        2   2061   2275       23    0    0
00:27:58      1
 150.100.33.4  4       456   1907   2339       23    0    0
00:28:08     17
R3#

```

```

r4#sho run
Building configuration...

Current configuration : 2413 bytes
!

```

```
version 12.2
service timestamps debug datetime msec localtime
service timestamps log datetime msec localtime
service password-encryption
!
hostname r4
!
!
ip subnet-zero
no ip domain-lookup
!
!
key chain ccie
  key 6727
    key-string 7 03520C5951
!
!
!
!
!
interface Loopback44
  description BGP Loopback
  ip address 4.4.4.44 255.255.255.255
!
interface Ethernet0
  ip address 140.100.47.4 255.255.255.192
!
interface Serial0
  ip address 150.100.33.4 255.255.255.248

  encapsulation frame-relay

  frame-relay map ip 150.100.33.3 404 broadcast
  frame-relay lmi-type ansi
!
interface Serial1
  ip address 140.100.45.4 255.255.255.192
clockrate 64000
!
router bgp 456
  no synchronization
  bgp router-id 4.4.4.4
  bgp log-neighbor-changes
  network 4.4.4.44 mask 255.255.255.255
  network 140.100.47.0 mask 255.255.255.192
  aggregate-address 209.112.0.0 255.255.0.0 summary-only
  neighbor 140.100.45.5 remote-as 456
  neighbor 140.100.45.5 next-hop-self
  neighbor 140.100.47.7 remote-as 1560
  neighbor 140.100.47.7 description R7_BB2
  neighbor 140.100.47.7 password 7 1511021F0725
  neighbor 140.100.47.7 remove-private-AS
  neighbor 150.100.33.3 remote-as 1234
  no auto-summary
```

```
!  
ip classless  
!  
line con 0  
  exec-timeout 0 0  
  logging synchronous  
line aux 0  
line vty 0 4  
  privilege level 15  
  logging synchronous  
  no login  
!  
end
```

```
r4#sho ip route bgp  
    17.0.0.0/24 is subnetted, 1 subnets  
B       17.1.1.0 [20/0] via 140.100.47.7, 01:08:54  
    1.0.0.0/32 is subnetted, 2 subnets  
B       1.1.1.11 [20/0] via 150.100.33.3, 00:30:19  
    2.0.0.0/32 is subnetted, 2 subnets  
B       2.2.2.22 [20/0] via 150.100.33.3, 00:30:19  
    3.0.0.0/32 is subnetted, 4 subnets  
B       3.3.3.33 [20/0] via 150.100.33.3, 00:30:19  
    140.100.0.0/16 is variably subnetted, 5 subnets, 2 masks  
B       140.100.86.0/27 [200/0] via 140.100.56.6, 00:35:48  
    156.46.0.0/16 is variably subnetted, 5 subnets, 2 masks  
B       156.46.2.0/24 [20/0] via 140.100.47.7, 01:08:54  
B       156.46.3.0/24 [20/0] via 140.100.47.7, 01:08:54  
B       156.46.1.0/24 [20/0] via 140.100.47.7, 01:08:54  
B       156.46.4.0/24 [20/0] via 140.100.47.7, 01:08:54  
B       156.46.100.0/22 [20/0] via 140.100.47.7, 01:08:54  
    6.0.0.0/32 is subnetted, 2 subnets  
B       6.6.6.66 [200/0] via 140.100.56.6, 00:35:48  
    37.0.0.0/24 is subnetted, 1 subnets  
B       37.1.1.0 [20/0] via 140.100.47.7, 01:08:54  
    7.0.0.0/8 is variably subnetted, 2 subnets, 2 masks  
B       7.7.7.7/32 [20/0] via 140.100.47.7, 01:08:55  
B       7.1.1.0/24 [20/0] via 140.100.47.7, 01:08:55  
    8.0.0.0/32 is subnetted, 2 subnets  
B       8.8.8.88 [200/0] via 140.100.56.6, 00:35:45  
B       209.112.65.0/24 [20/0] via 140.100.47.7, 01:08:55  
    9.0.0.0/32 is subnetted, 1 subnets  
B       9.9.9.9 [20/0] via 150.100.33.3, 00:29:03  
    10.0.0.0/24 is subnetted, 1 subnets  
B       10.1.1.0 [20/0] via 150.100.33.3, 00:29:03  
    27.0.0.0/24 is subnetted, 1 subnets  
B       27.1.1.0 [20/0] via 140.100.47.7, 01:08:55  
B       209.112.67.0/24 [20/0] via 140.100.47.7, 01:08:55  
B       209.112.69.0/24 [20/0] via 140.100.47.7, 01:08:56  
B       209.112.0.0/16 [200/0] via 0.0.0.0, 01:08:56, Null0
```

```
r4#sho ip bgp  
BGP table version is 92, local router ID is 4.4.4.4
```

```

Status codes: s suppressed, d damped, h history, * valid, > best,
i - internal
Origin codes: i - IGP, e - EGP, ? - incomplete

      Network      Next Hop      Metric LocPrf Weight Path
i      *> 1.1.1.11/32      150.100.33.3              0 1234
i
i      *> 2.2.2.22/32      150.100.33.3              0 1234
i
i      *> 3.3.3.33/32      150.100.33.3              0 1234
i
i      *> 4.4.4.44/32      0.0.0.0              0      32768 i
i      *>i5.5.5.55/32      140.100.45.5          0      100      0 i
i      *>i6.6.6.66/32      140.100.56.6          0      100      0 i
i      *> 7.1.1.0/24      140.100.47.7          0              0 1560
i
i      *> 7.7.7.7/32      140.100.47.7          0              0 1560
i
i      *>i8.8.8.88/32      140.100.56.6          0      100      0 65000
i
i      *> 9.9.9.9/32      150.100.33.3              0 1234
9 93 i
i      *> 10.1.1.0/24      150.100.33.3              0 1234
9 93 i
i      *> 17.1.1.0/24      140.100.47.7          0              0 1560
i
i      *> 27.1.1.0/24      140.100.47.7          0              0 1560
i
i      *> 37.1.1.0/24      140.100.47.7          0              0 1560
i
i      * 140.100.47.0/26    140.100.47.7          0              0 1560
i
i      *>
i      *>i140.100.86.0/27    140.100.56.6          0      100      0 i
i      *> 156.46.1.0/24      140.100.47.7          0              0 1560
i
i      *> 156.46.2.0/24      140.100.47.7          0              0 1560
i
i      *> 156.46.3.0/24      140.100.47.7          0              0 1560
i
i      *> 156.46.4.0/24      140.100.47.7          0              0 1560
i
i      *> 156.46.100.0/22    140.100.47.7          0              0 1560
i
i      *> 209.112.0.0/16    0.0.0.0              32768 i
i      s> 209.112.65.0      140.100.47.7          0              0 1560
i
i      s> 209.112.67.0      140.100.47.7          0              0 1560
i
i      s> 209.112.69.0      140.100.47.7          0              0 1560
i

```

```

r4#ping 1.1.1.11

```



```
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 1.1.1.11, timeout is 2 seconds:
!!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
104/104/104 ms
r4#ping 2.2.2.22

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2.2.2.22, timeout is 2 seconds:
!!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
116/118/120 ms
r4#ping 3.3.3.33

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 3.3.3.33, timeout is 2 seconds:
!!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
60/63/64 ms
r4#ping 4.4.4.44

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 4.4.4.44, timeout is 2 seconds:
!!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/4
ms
r4#ping 5.5.5.55

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 5.5.5.55, timeout is 2 seconds:
!!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
32/32/32 ms
r4#ping 6.6.6.66

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 6.6.6.66, timeout is 2 seconds:
!!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
60/60/64 ms
r4#ping 7.7.7.7

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 7.7.7.7, timeout is 2 seconds:
!!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/8
ms
r4#ping 8.8.8.88

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.88, timeout is 2 seconds:
!!!!!!
```

```

Success rate is 100 percent (5/5), round-trip min/avg/max =
60/60/60 ms
r4#ping 9.9.9.9

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 9.9.9.9, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
60/61/68 ms

```

```

r4#sho ip bgp su
BGP router identifier 4.4.4.4, local AS number 456
BGP table version is 92, main routing table version 92
25 network entries and 26 paths using 3361 bytes of memory
8 BGP path attribute entries using 480 bytes of memory
1 BGP rrinfo entries using 24 bytes of memory
4 BGP AS-PATH entries using 96 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
BGP activity 276/2935 prefixes, 538/512 paths, scan interval 60
secs

```

Neighbor	V	AS	MsgRcvd	MsgSent	TblVer	InQ	OutQ	Up/Down
State/PfxRcd								
140.100.45.5	4	456	1855	2385	92	0	0	
01:13:52	4							
140.100.47.7	4	1560	1833	2374	92	0	0	
01:09:42	14							
150.100.33.3	4	1234	2342	1913	92	0	0	
00:31:57	5							

```

r4#

```

```

r5#sho run
Building configuration...

Current configuration : 2366 bytes
!
! Last configuration change at 01:58:57 UTC Fri Mar 14 2003
! NVRAM config last updated at 01:59:01 UTC Fri Mar 14 2003
!
version 12.2
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname r5
!
!
ip subnet-zero
!
!
!
interface Loopback55

```

```

description BGP Loopback
ip address 5.5.5.55 255.255.255.255
!
interface Ethernet0
ip address 130.100.26.5 255.255.255.224
!
interface Serial0
ip address 140.100.45.5 255.255.255.192

fair-queue
!
interface Serial1
ip address 140.100.56.5 255.255.255.192
ip access-group 100 in

clockrate 64000
!
!
router bgp 456
no synchronization
bgp router-id 5.5.5.5
bgp log-neighbor-changes
network 5.5.5.55 mask 255.255.255.255
neighbor 140.100.45.4 remote-as 456
neighbor 140.100.45.4 route-reflector-client
neighbor 140.100.45.4 next-hop-self
neighbor 140.100.56.6 remote-as 456
neighbor 140.100.56.6 route-reflector-client
neighbor 140.100.56.6 next-hop-self
no auto-summary
!
ip classless
!
line con 0
exec-timeout 0 0
line aux 0
line vty 0 4
privilege level 15
no login

```

```

r5#sho ip route bg
    17.0.0.0/24 is subnetted, 1 subnets
B       17.1.1.0 [200/0] via 140.100.45.4, 01:13:34
    1.0.0.0/32 is subnetted, 2 subnets
B       1.1.1.11 [200/0] via 140.100.45.4, 00:34:54
    2.0.0.0/32 is subnetted, 2 subnets
B       2.2.2.22 [200/0] via 140.100.45.4, 00:34:59
    3.0.0.0/32 is subnetted, 4 subnets
B       3.3.3.33 [200/0] via 140.100.45.4, 00:34:54
    4.0.0.0/32 is subnetted, 2 subnets
B       4.4.4.44 [200/0] via 140.100.45.4, 01:17:27
    140.100.0.0/16 is variably subnetted, 4 subnets, 2 masks
B       140.100.86.0/27 [200/0] via 140.100.56.6, 00:40:28

```

```

B      140.100.47.0/26 [200/0] via 140.100.45.4, 01:17:27
      156.46.0.0/16 is variably subnetted, 5 subnets, 2 masks
B      156.46.2.0/24 [200/0] via 140.100.45.4, 01:13:34
B      156.46.3.0/24 [200/0] via 140.100.45.4, 01:13:34
B      156.46.1.0/24 [200/0] via 140.100.45.4, 01:13:34
B      156.46.4.0/24 [200/0] via 140.100.45.4, 01:13:34
B      156.46.100.0/22 [200/0] via 140.100.45.4, 01:13:34
      6.0.0.0/32 is subnetted, 2 subnets
B      6.6.6.66 [200/0] via 140.100.56.6, 00:40:29
      37.0.0.0/24 is subnetted, 1 subnets
B      37.1.1.0 [200/0] via 140.100.45.4, 01:13:35
      7.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
B      7.7.7.7/32 [200/0] via 140.100.45.4, 01:13:35
B      7.1.1.0/24 [200/0] via 140.100.45.4, 01:13:35
      8.0.0.0/32 is subnetted, 2 subnets
B      8.8.8.88 [200/0] via 140.100.56.6, 00:40:29
      9.0.0.0/32 is subnetted, 1 subnets
B      9.9.9.9 [200/0] via 140.100.45.4, 00:33:43
      10.0.0.0/24 is subnetted, 1 subnets
B      10.1.1.0 [200/0] via 140.100.45.4, 00:33:43
      27.0.0.0/24 is subnetted, 1 subnets
B      27.1.1.0 [200/0] via 140.100.45.4, 01:13:35
B      209.112.0.0/16 [200/0] via 140.100.45.4, 01:13:35

```

# r5#sho ip bgp

BGP table version is 381, local router ID is 5.5.5.5

Status codes: s suppressed, d damped, h history, \* valid, > best,

i - internal

Origin codes: i - IGP, e - EGP, ? - incomplete

	Network	Next Hop	Metric	LocPrf	Weight	Path
i	*>i1.1.1.11/32	140.100.45.4		100	0	1234
i	*>i2.2.2.22/32	140.100.45.4		100	0	1234
i	*>i3.3.3.33/32	140.100.45.4	0	100	0	1234
	*>i4.4.4.44/32	140.100.45.4	0	100	0	i
	*> 5.5.5.55/32	0.0.0.0	0		32768	i
	*>i6.6.6.66/32	140.100.56.6	0	100	0	i
i	*>i7.1.1.0/24	140.100.45.4	0	100	0	1560
i	*>i7.7.7.7/32	140.100.45.4	0	100	0	1560
i	*>i8.8.8.88/32	140.100.56.6	0	100	0	65000
9 93 i	*>i9.9.9.9/32	140.100.45.4		100	0	1234
9 93 i	*>i10.1.1.0/24	140.100.45.4		100	0	1234
i	*>i17.1.1.0/24	140.100.45.4	0	100	0	1560

i	*>i27.1.1.0/24	140.100.45.4	0	100	0 1560
i	*>i37.1.1.0/24	140.100.45.4	0	100	0 1560
	*>i140.100.47.0/26	140.100.45.4	0	100	0 i
	*>i140.100.86.0/27	140.100.56.6	0	100	0 i
i	*>i156.46.1.0/24	140.100.45.4	0	100	0 1560
i	*>i156.46.2.0/24	140.100.45.4	0	100	0 1560
i	*>i156.46.3.0/24	140.100.45.4	0	100	0 1560
i	*>i156.46.4.0/24	140.100.45.4	0	100	0 1560
i	*>i156.46.100.0/22	140.100.45.4	0	100	0 1560
i	*>i209.112.0.0/16	140.100.45.4		100	0 i

```

r5#ping 1.1.1.11

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 1.1.1.11, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
128/132/140 ms
r5#ping 2.2.2.22

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2.2.2.22, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
144/144/148 ms
r5#ping 3.3.3.33

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 3.3.3.33, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
88/89/96 ms
r5#ping 4.4.4.44

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 4.4.4.44, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
32/32/32 ms
r5#ping 5.5.5.55

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 5.5.5.55, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/4
ms

```

```
r5#ping 6.6.6.66

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 6.6.6.66, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
28/30/32 ms
r5#ping 7.7.7.7

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 7.7.7.7, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
32/34/36 ms
r5#ping 8.8.8.88

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.88, timeout is 2 seconds:
!!!!

Success rate is 0 percent (0/2)
r5#ping 9.9.9.9

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 9.9.9.9, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
88/90/96 ms
```

```
r5#sho ip bgp summary
BGP router identifier 5.5.5.5, local AS number 456
BGP table version is 381, main routing table version 381
22 network entries and 22 paths using 2926 bytes of memory
8 BGP path attribute entries using 480 bytes of memory
4 BGP AS-PATH entries using 96 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
BGP activity 275/1074 prefixes, 516/494 paths, scan interval 60
secs

Neighbor      V      AS MsgRcvd MsgSent  TblVer  InQ OutQ Up/Down
State/PfxRcd
 140.100.45.4  4    456   2390   1860    381    0    0
01:18:40      18
 140.100.56.6  4    456    162    187    381    0    0
00:41:34      3
r5#
```

```
hostname r6
!
!
ip subnet-zero
```

```
!  
!  
no ip domain lookup  
!  
ip audit notify log  
ip audit po max-events 100  
!  
!  
!  
key chain ccie  
  key 1  
    key-string ccie  
!  
!  
!  
!  
!  
mta receive maximum-recipients 0  
!  
!  
!  
!  
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  
  tunnel source 130.100.26.6  
  tunnel destination 130.100.23.3  
!  
interface FastEthernet0/0  
  ip address 130.100.26.6 255.255.255.224  
  speed 10  
  half-duplex  
!  
interface Serial0/0  
  ip address 140.100.56.6 255.255.255.192  
  
!  
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 8.8.8.8 remote-as 65000  
  neighbor 8.8.8.8 ebgp-multihop 2  
  neighbor 8.8.8.8 update-source Loopback6  
  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
!
!
!
line con 0
  exec-timeout 0 0
line aux 0
line vty 0 4
  privilege level 15
  no login
!
!
end

r6#
!
end
```

```
r6#sho ip route bgp
 17.0.0.0/24 is subnetted, 1 subnets
B    17.1.1.0 [200/0] via 140.100.45.4, 00:44:02
 1.0.0.0/32 is subnetted, 2 subnets
B    1.1.1.11 [200/0] via 140.100.45.4, 00:38:29
 2.0.0.0/32 is subnetted, 2 subnets
B    2.2.2.22 [200/0] via 140.100.45.4, 00:38:33
 3.0.0.0/32 is subnetted, 4 subnets
B    3.3.3.33 [200/0] via 140.100.45.4, 00:38:24
 4.0.0.0/32 is subnetted, 2 subnets
B    4.4.4.44 [200/0] via 140.100.45.4, 00:44:02
140.100.0.0/16 is variably subnetted, 4 subnets, 2 masks
B    140.100.47.0/26 [200/0] via 140.100.45.4, 00:44:02
156.46.0.0/16 is variably subnetted, 5 subnets, 2 masks
B    156.46.2.0/24 [200/0] via 140.100.45.4, 00:44:02
B    156.46.3.0/24 [200/0] via 140.100.45.4, 00:44:02
B    156.46.1.0/24 [200/0] via 140.100.45.4, 00:44:02
B    156.46.4.0/24 [200/0] via 140.100.45.4, 00:44:02
B    156.46.100.0/22 [200/0] via 140.100.45.4, 00:44:02
37.0.0.0/24 is subnetted, 1 subnets
B    37.1.1.0 [200/0] via 140.100.45.4, 00:44:03
 7.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
B    7.7.7.7/32 [200/0] via 140.100.45.4, 00:44:03
B    7.1.1.0/24 [200/0] via 140.100.45.4, 00:44:03
 8.0.0.0/32 is subnetted, 2 subnets
B    8.8.8.88 [20/0] via 192.168.2.1, 00:44:04
 9.0.0.0/32 is subnetted, 1 subnets
B    9.9.9.9 [200/0] via 140.100.45.4, 00:37:18
10.0.0.0/24 is subnetted, 1 subnets
B    10.1.1.0 [200/0] via 140.100.45.4, 00:37:18
27.0.0.0/24 is subnetted, 1 subnets
B    27.1.1.0 [200/0] via 140.100.45.4, 00:44:04
B    209.112.0.0/16 [200/0] via 140.100.45.4, 00:44:04
```



```

r6#sho ip bgp
BGP table version is 36, local router ID is 6.6.6.6
Status codes: s suppressed, d damped, h history, * valid, > best,
i - internal,
                r RIB-failure
Origin codes: i - IGP, e - EGP, ? - incomplete

   Network                Next Hop           Metric LocPrf Weight Path
* > i1.1.1.11/32          140.100.45.4                100      0 1234
i
* > i2.2.2.22/32          140.100.45.4                100      0 1234
i
* > i3.3.3.33/32          140.100.45.4                0      100      0 1234
i
* > i4.4.4.44/32          140.100.45.4                0      100      0 i
* > i5.5.5.55/32          140.100.56.5                0      100      0 i
* > 6.6.6.66/32           0.0.0.0                    0              32768 i
* > i7.1.1.0/24           140.100.45.4                0      100      0 1560
i
* > i7.7.7.7/32           140.100.45.4                0      100      0 1560
i
* > 8.8.8.88/32           192.168.2.1                 0              0 65000
i
* > i9.9.9.9/32           140.100.45.4                100      0 1234
9 93 i
* > i10.1.1.0/24          140.100.45.4                100      0 1234
9 93 i
* > i17.1.1.0/24          140.100.45.4                0      100      0 1560
i
* > i27.1.1.0/24          140.100.45.4                0      100      0 1560
i
* > i37.1.1.0/24          140.100.45.4                0      100      0 1560
i
* > i140.100.47.0/26       140.100.45.4                0      100      0 i
* > 140.100.86.0/27        0.0.0.0                    0              32768 i
* > i156.46.1.0/24         140.100.45.4                0      100      0 1560
i
* > i156.46.2.0/24         140.100.45.4                0      100      0 1560
i
* > i156.46.3.0/24         140.100.45.4                0      100      0 1560
i
* > i156.46.4.0/24         140.100.45.4                0      100      0 1560
i
* > i156.46.100.0/22       140.100.45.4                0      100      0 1560
i
* > i209.112.0.0/16        140.100.45.4                100      0 i

```

```

r6#ping 1.1.1.1

```

```

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 1.1.1.11, timeout is 2 seconds:
!!!!

```

```
Success rate is 100 percent (5/5), round-trip min/avg/max =
156/159/168 ms
r6#ping 2.2.2.22

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2.2.2.22, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
168/171/176 ms
r6#ping 3.3.3.33

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 3.3.3.33, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
116/116/116 ms
r6#ping 4.4.4.44

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 4.4.4.44, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
56/58/60 ms
r6#ping 5.5.5.55

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 5.5.5.55, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
28/31/32 ms
r6#ping 6.6.6.66

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 6.6.6.66, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/4
ms

r6#ping 8.8.8.8

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.8, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/4
ms
```

#### **r6#sho ip bgp summary**

```
BGP router identifier 6.6.6.6, local AS number 456
BGP table version is 36, main routing table version 36
22 network entries and 22 paths using 3278 bytes of memory
8 BGP path attribute entries using 480 bytes of memory
1 BGP rrinfo entries using 24 bytes of memory
4 BGP AS-PATH entries using 96 bytes of memory
```

0 BGP route-map cache entries using 0 bytes of memory								
0 BGP filter-list cache entries using 0 bytes of memory								
BGP activity 109/1050 prefixes, 110/88 paths, scan interval 60 secs								
Neighbor	V	AS	MsgRcvd	MsgSent	TblVer	InQ	OutQ	Up/Down
State/PfxRcd								
140.100.56.5	4	456	198	173	36	0	0	
00:45:11	19							
192.168.2.1	4	65000	153	194	36	0	0	
00:45:01	1							

```

r7#sho run
Building configuration...

Current configuration : 2967 bytes
!
version 12.2
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
service password-encryption
!
hostname r7
!
!
!
!
!
!
ip subnet-zero
no ip domain-lookup
!
!
key chain ccie
  key 6727
    key-string 7 03520C5951
!
!
!
interface Loopback1
  ip address 7.1.1.7 255.255.255.0
!
interface Loopback2
  ip address 17.1.1.7 255.255.255.0
!
interface Loopback3
  ip address 27.1.1.7 255.255.255.0
!
interface Loopback4
  ip address 37.1.1.7 255.255.255.0
!
interface Loopback100

```

```
    ip address 209.112.65.1 255.255.255.0
!
interface Loopback101
    ip address 209.112.66.1 255.255.255.0
!
interface Loopback102
    ip address 209.112.67.1 255.255.255.0
!
interface Loopback103
    ip address 209.112.68.1 255.255.255.0
!
interface Loopback104
    ip address 209.112.69.1 255.255.255.0
!
interface Loopback105
    ip address 209.112.70.1 255.255.255.0
!
interface Loopback200
    ip address 156.46.1.1 255.255.255.0
!
interface Loopback201
    ip address 156.46.2.1 255.255.255.0
!
interface Loopback202
    ip address 156.46.3.1 255.255.255.0
!
interface Loopback203
    ip address 156.46.4.1 255.255.255.0
!
interface Loopback204
    ip address 156.46.100.1 255.255.252.0
!
interface Loopback444
    ip address 140.100.9.1 255.255.255.224
!
interface Loopback777
    ip address 7.7.7.7 255.255.255.255
!
interface Ethernet0
    ip address 140.100.47.7 255.255.255.192

!
router bgp 1560
    no synchronization
    bgp router-id 7.7.7.7
    bgp log-neighbor-changes
    network 7.1.1.0 mask 255.255.255.0
    network 7.7.7.7 mask 255.255.255.255
    network 17.1.1.0 mask 255.255.255.0
    network 27.1.1.0 mask 255.255.255.0
    network 37.1.1.0 mask 255.255.255.0
    network 140.100.47.0 mask 255.255.255.192
    network 156.46.1.0 mask 255.255.255.0
    network 156.46.2.0 mask 255.255.255.0
```

```
network 156.46.3.0 mask 255.255.255.0
network 156.46.4.0 mask 255.255.255.0
network 156.46.100.0 mask 255.255.252.0
network 209.112.65.0
network 209.112.66.0
network 209.112.67.0
network 209.112.68.0
network 209.112.69.0
network 209.112.70.0
neighbor 140.100.47.4 remote-as 456
neighbor 140.100.47.4 description R4
neighbor 140.100.47.4 password 7 045802150C2E
neighbor 140.100.47.4 version 4
neighbor 140.100.47.4 distribute-list 1 out
!
no ip classless
no ip http server
!
access-list 1 deny 209.112.0.0 0.0.254.255
access-list 1 permit any
access-list 10 permit 150.100.0.0 0.0.255.255 log
!
line con 0
  exec-timeout 0 0
  privilege level 15
line aux 0
line vty 0 4
  privilege level 15
  no login
!
end
```

```
r7#sho ip route bgp
 1.0.0.0/32 is subnetted, 1 subnets
B    1.1.1.11 [20/0] via 140.100.47.4, 00:49:47
 2.0.0.0/32 is subnetted, 1 subnets
B    2.2.2.22 [20/0] via 140.100.47.4, 00:50:13
 3.0.0.0/32 is subnetted, 1 subnets
B    3.3.3.33 [20/0] via 140.100.47.4, 00:49:46
 4.0.0.0/32 is subnetted, 2 subnets
B    4.4.4.44 [20/0] via 140.100.47.4, 01:28:48
140.100.0.0/16 is variably subnetted, 4 subnets, 2 masks
B    140.100.86.0/27 [20/0] via 140.100.47.4, 00:05:19
 5.0.0.0/32 is subnetted, 1 subnets
B    5.5.5.55 [20/0] via 140.100.47.4, 00:04:51
 6.0.0.0/32 is subnetted, 1 subnets
B    6.6.6.66 [20/0] via 140.100.47.4, 00:05:19
 8.0.0.0/32 is subnetted, 1 subnets
B    8.8.8.88 [20/0] via 140.100.47.4, 00:05:20
 9.0.0.0/32 is subnetted, 1 subnets
B    9.9.9.9 [20/0] via 140.100.47.4, 00:48:56
10.0.0.0/24 is subnetted, 1 subnets
B    10.1.1.0 [20/0] via 140.100.47.4, 00:48:56
```

B 209.112.0.0/16 [20/0] via 140.100.47.4, 01:28:21

r7#**sho ip bgp**

BGP table version is 76, local router ID is 7.7.7.7

Status codes: s suppressed, d damped, h history, \* valid, > best,  
i - internal

Origin codes: i - IGP, e - EGP, ? - incomplete

	Network	Next Hop	Metric	LocPrf	Weight	Path
*>	1.1.1.11/32	140.100.47.4			0	456
1234 i						
*>	2.2.2.22/32	140.100.47.4			0	456
1234 i						
*>	3.3.3.33/32	140.100.47.4			0	456
1234 i						
*>	4.4.4.44/32	140.100.47.4	0		0	456 i
*>	5.5.5.55/32	140.100.47.4			0	456 i
*>	6.6.6.66/32	140.100.47.4			0	456 i
*>	7.1.1.0/24	0.0.0.0	0		32768	i
*>	7.7.7.7/32	0.0.0.0	0		32768	i
*>	8.8.8.88/32	140.100.47.4			0	456 i
*>	9.9.9.9/32	140.100.47.4			0	456
1234 9 93 i						
*>	10.1.1.0/24	140.100.47.4			0	456
1234 9 93 i						
*>	17.1.1.0/24	0.0.0.0	0		32768	i
*>	27.1.1.0/24	0.0.0.0	0		32768	i
*>	37.1.1.0/24	0.0.0.0	0		32768	i
*	140.100.47.0/26	140.100.47.4	0		0	456 i
*>		0.0.0.0	0		32768	i
*>	140.100.86.0/27	140.100.47.4			0	456 i
*>	156.46.1.0/24	0.0.0.0	0		32768	i
	Network	Next Hop	Metric	LocPrf	Weight	Path
*>	156.46.2.0/24	0.0.0.0	0		32768	i
*>	156.46.3.0/24	0.0.0.0	0		32768	i
*>	156.46.4.0/24	0.0.0.0	0		32768	i
*>	156.46.100.0/22	0.0.0.0	0		32768	i
*>	209.112.0.0/16	140.100.47.4			0	456 i
*>	209.112.65.0	0.0.0.0	0		32768	i
*>	209.112.66.0	0.0.0.0	0		32768	i
*>	209.112.67.0	0.0.0.0	0		32768	i
*>	209.112.68.0	0.0.0.0	0		32768	i
*>	209.112.69.0	0.0.0.0	0		32768	i
*>	209.112.70.0	0.0.0.0	0		32768	i

r7#**sho ip bgp su**

BGP router identifier 7.7.7.7, local AS number 1560

BGP table version is 76, main routing table version 76

28 network entries and 29 paths using 3760 bytes of memory

6 BGP path attribute entries using 360 bytes of memory

3 BGP AS-PATH entries using 72 bytes of memory

0 BGP route-map cache entries using 0 bytes of memory

0 BGP filter-list cache entries using 0 bytes of memory

BGP activity 459/2554 prefixes, 665/636 paths, scan interval 60 secs

Neighbor State/PfxRcd	V	AS	MsgRcvd	MsgSent	TblVer	InQ	OutQ	Up/Down
140.100.47.4	4	456	2401	1853	76	0	0	
01:29:14	12							

R8#**sho run**

Building configuration...

Current configuration : 5087 bytes

!

! Last configuration change at 19:56:43 PST Sun Mar 7 1993

! NVRAM config last updated at 20:18:45 PST Sun Mar 7 1993

!

version 12.2

service timestamps debug uptime

service timestamps log uptime

service password-encryption

!

hostname R8

!

enable password 7 05080F1C2243

!

ip subnet-zero

!

!

!

!

!

interface Loopback88

description BGP Loopback

ip address 8.8.8.88 255.255.255.255

!

interface Tunnel1

ip address 192.168.2.1 255.255.255.0

tunnel source 192.168.1.1

tunnel destination 130.100.26.6

!

interface FastEthernet0/1

ip address 192.168.1.1 255.255.255.0

no ip route-cache

no ip mroute-cache

duplex auto

speed auto

no cdp enable

!

router bgp 65000

no synchronization

```
bgp router-id 8.8.8.8
bgp log-neighbor-changes

redistribute connected route-map loop
neighbor 6.6.6.6 remote-as 456
neighbor 6.6.6.6 ebgp-multihop 2
neighbor 6.6.6.6 update-source Loopback8
no auto-summary
!
ip route 6.6.6.0 255.255.255.0 192.168.1.222
ip route 10.1.1.0 255.255.255.0 10.1.1.1
ip route 130.100.26.0 255.255.255.0 192.168.1.222
!
access-list 1 permit any
access-list 2 permit 8.8.8.8 !
route-map loop permit 10
  match ip address 2
!
line con 0
  exec-timeout 0 0
  privilege level 15
  speed 115200
end
```

```
R8#sho ip route bgp
      17.0.0.0/24 is subnetted, 1 subnets
B       17.1.1.0 [20/0] via 192.168.2.2, 00:07:24
      1.0.0.0/32 is subnetted, 2 subnets
B       1.1.1.11 [20/0] via 192.168.2.2, 00:07:24
      2.0.0.0/32 is subnetted, 2 subnets
B       2.2.2.22 [20/0] via 192.168.2.2, 00:07:24
      3.0.0.0/32 is subnetted, 4 subnets
B       3.3.3.33 [20/0] via 192.168.2.2, 00:07:24
      4.0.0.0/32 is subnetted, 2 subnets
B       4.4.4.44 [20/0] via 192.168.2.2, 00:07:24
      140.100.0.0/16 is variably subnetted, 4 subnets, 2 masks
B       140.100.86.0/27 [20/0] via 192.168.2.2, 00:57:47
B       140.100.47.0/26 [20/0] via 192.168.2.2, 00:07:24
      5.0.0.0/32 is subnetted, 2 subnets
B       5.5.5.55 [20/0] via 192.168.2.2, 00:06:55
      156.46.0.0/16 is variably subnetted, 5 subnets, 2 masks
B       156.46.2.0/24 [20/0] via 192.168.2.2, 00:07:24
B       156.46.3.0/24 [20/0] via 192.168.2.2, 00:07:24
B       156.46.1.0/24 [20/0] via 192.168.2.2, 00:07:24
B       156.46.4.0/24 [20/0] via 192.168.2.2, 00:07:24
B       156.46.100.0/22 [20/0] via 192.168.2.2, 00:07:24
      6.0.0.0/8 is variably subnetted, 3 subnets, 2 masks
B       6.6.6.66/32 [20/0] via 192.168.2.2, 00:57:47
      37.0.0.0/24 is subnetted, 1 subnets
B       37.1.1.0 [20/0] via 192.168.2.2, 00:07:24
      7.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
B       7.7.7.7/32 [20/0] via 192.168.2.2, 00:07:24
B       7.1.1.0/24 [20/0] via 192.168.2.2, 00:07:24
```



```

B      9.0.0.0/32 is subnetted, 1 subnets
B      9.9.9.9 [20/0] via 192.168.2.2, 00:07:24
      27.0.0.0/24 is subnetted, 1 subnets
B      27.1.1.0 [20/0] via 192.168.2.2, 00:07:24
B      209.112.0.0/16 [20/0] via 192.168.2.2, 00:07:24

```

```

R8#sho ip bgp
BGP table version is 544, local router ID is 8.8.8.8
Status codes: s suppressed, d damped, h history, * valid, > best,
i - internal,
              r RIB-failure
Origin codes: i - IGP, e - EGP, ? - incomplete

   Network          Next Hop           Metric LocPrf Weight Path
*> 1.1.1.11/32      192.168.2.2
1234 i                                     0 456
*> 2.2.2.22/32      192.168.2.2
1234 i                                     0 456
*> 3.3.3.33/32      192.168.2.2
1234 i                                     0 456
*> 4.4.4.44/32      192.168.2.2
*> 5.5.5.55/32      192.168.2.2
*> 6.6.6.66/32      192.168.2.2          0
*> 7.1.1.0/24       192.168.2.2
1560 i                                     0 456
*> 7.7.7.7/32       192.168.2.2
1560 i                                     0 456
*> 8.8.8.88/32      0.0.0.0          0
*> 9.9.9.9/32       192.168.2.2          0 32768 i
1234 9 93 i                                     0 456
*> 10.1.1.0/24      192.168.2.2
1234 9 93 i                                     0 456
*> 17.1.1.0/24      192.168.2.2
1560 i                                     0 456
*> 27.1.1.0/24      192.168.2.2
1560 i                                     0 456
*> 37.1.1.0/24      192.168.2.2
1560 i                                     0 456
*> 140.100.47.0/26  192.168.2.2
*> 140.100.86.0/27  192.168.2.2          0
*> 156.46.1.0/24    192.168.2.2
1560 i                                     0 456
*> 156.46.2.0/24    192.168.2.2
1560 i                                     0 456
*> 156.46.3.0/24    192.168.2.2
1560 i                                     0 456
*> 156.46.4.0/24    192.168.2.2
1560 i                                     0 456
*> 156.46.100.0/22  192.168.2.2
1560 i                                     0 456
*> 209.112.0.0/16   192.168.2.2
                                     0 456 i

```

```

R8#ping 1.1.1.11

```

```
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 1.1.1.11, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
160/163/176 ms
R8#ping 2.2.2.22

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2.2.2.22, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
172/173/176 ms
R8#ping 3.3.3.33

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 3.3.3.33, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
116/118/120 ms
R8#ping 4.4.4.44

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 4.4.4.44, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
60/60/64 ms
R8#ping 5.5.5.55

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 5.5.5.55, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
32/38/60 ms
R8#ping 6.6.6.66

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 6.6.6.66, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/4
ms
R8#ping 7.7.7.7

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 7.7.7.7, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
60/62/64 ms
R8#ping 8.8.8.88

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.88, timeout is 2 seconds:
!!!!
```

```
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/4
ms
R8#ping 9.9.9.9

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 9.9.9.9, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
116/118/128 ms
```

```
R8#sho ip bgp su
BGP router identifier 8.8.8.8, local AS number 65000
BGP table version is 544, main routing table version 544
22 network entries and 22 paths using 3278 bytes of memory
7 BGP path attribute entries using 420 bytes of memory
4 BGP AS-PATH entries using 96 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
BGP activity 183/446 prefixes, 235/213 paths, scan interval 60
secs

Neighbor      V      AS MsgRcvd MsgSent   TblVer  InQ OutQ Up/Down
State/PfxRcd
192.168.2.2    4      456     222     166     544    0    0
00:58:35      21
```

```
hostname r9
!
!
interface Loopback9
 ip address 9.9.9.9 255.255.255.255
!
interface Loopback19
 ip address 19.19.19.19 255.255.255.0
!
interface Ethernet0
 ip address 10.1.1.9 255.255.255.0
!
!
router bgp 9
 bgp log-neighbor-changes
 network 9.9.9.9 mask 255.255.255.255
 neighbor 130.100.1.3 remote-as 1234
 neighbor 130.100.1.3 ebgp-multihop 2
 neighbor 130.100.1.3 route-map as out
 neighbor 130.100.1.3 maximum-prefix 100
!
ip classless
ip route 0.0.0.0 0.0.0.0 10.1.1.1
ip route 192.168.1.0 255.255.255.0 10.1.1.1
!
route-map as permit 10
 set as-path prepend 93
```

```
!  
!  
!  
line con 0  
  exec-timeout 0 0  
  privilege level 15  
  transport input none  
line aux 0  
line vty 0 4  
  privilege level 15  
  no login  
!  
end
```

```
PIX1  
nameif ethernet0 outside security0  
nameif ethernet1 inside security100  
nameif ethernet2 dmz security10  
nameif ethernet3 intf3 security15  
enable password 8Ry2YjIyt7RRXU24 encrypted  
passwd 2KFQnbNIdI.2KYOU encrypted  
hostname pix1  
fixup protocol ftp 21  
fixup protocol http 80  
fixup protocol h323 1720  
fixup protocol rsh 514  
fixup protocol smtp 25  
fixup protocol sqlnet 1521  
fixup protocol sip 5060  
fixup protocol rtsp 554  
names  
access-list bgpin permit tcp host 130.100.1.3 host 10.1.1.9 eq bgp  
access-list bgpin permit icmp any any  
access-list bgpin permit tcp host 130.100.1.3 host 10.1.1.9 eq  
telnet  
  access-list bgpin permit udp any any gt 33000  
pager lines 24  
interface ethernet0 auto  
interface ethernet1 auto  
interface ethernet2 auto  
interface ethernet3 auto  
mtu outside 1500  
mtu inside 1500  
mtu dmz 1500  
mtu intf3 1500  
ip address outside 130.100.1.1 255.255.255.0  
ip address inside 10.1.1.1 255.255.255.0  
ip address dmz 127.0.0.1 255.255.255.255  
ip address intf3 127.0.0.1 255.255.255.255  
arp timeout 14400  
static (inside,outside) 10.1.1.9 10.1.1.9 netmask 255.255.255.255  
0 0  
access-group bgpin in interface outside
```

```
rip outside passive version 1
rip inside passive version 2 authentication md5 ccie 2
```

```
PIX2(config)# sho run
: Saved
:
PIX Version 6.2(2)
nameif ethernet0 outside security0
nameif ethernet1 inside security100
nameif ethernet2 intf2 security10
nameif ethernet3 intf3 security15
enable password 8Ry2YjIyt7RRXU24 encrypted
passwd 2KFQnbNIdI.2KYOU encrypted
hostname PIX2
names
interface ethernet0 10full
interface ethernet1 auto
interface ethernet2 auto
interface ethernet3 10baset
mtu outside 1500
mtu inside 1500
ip address outside 130.100.26.2 255.255.255.224
ip address inside 192.168.1.222 255.255.255.0
nat (inside) 10 0.0.0.0 0.0.0.0 0 0
static (inside,outside) 130.100.26.3 192.168.1.1 netmask
255.255.255.255 0 0access-list outside_access_in permit icmp host
130.100.26.6 host 130.100.26.3
access-list outside_access_in permit gre any host 130.100.26.3
access-group outside_access_in in interface outside
rip outside passive version 2 authentication md5 ccie 1
rip inside passive version 1
route outside 0.0.0.0 0.0.0.0 130.100.26.6 1
```